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# 2014 South Dakota Spring Wheat Variety Trial Results

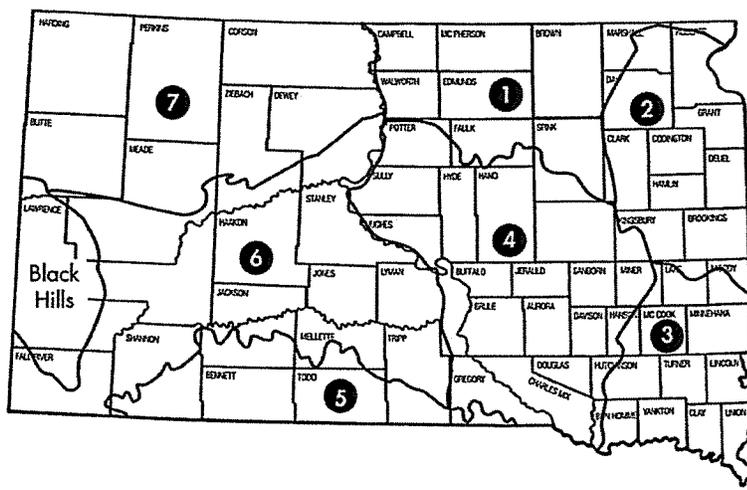
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## Recommended Spring Wheat Varieties for Spring 2015 by Crop Zone†

Zone - 1	Zone - 2	Zone - 3	Zone - 4	Zone - 5	Zone - 6	Zone - 7
LCS Albany Faller Prosper Traverse	LCS Albany Faller Prosper Traverse	Not Evaluated§	LCS Albany Faller Prosper Traverse	Not Evaluated§	Briggs‡ Elgin-ND‡ Forefront Prevail Prosper Samson‡ Traverse Velva‡	Briggs‡ Elgin-ND‡ Forefront Prevail Prosper Samson‡ Traverse Velva‡

### Promising

MS Stingray	MS Stingray	Not Evaluated§	MS Stingray	Not Evaluated§	WB-Digger‡ MS Stingray	WB-Digger‡ MS Stingray
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† Crop Zones for small grains are base on soil & climate information.

‡ Variety is susceptible or moderately susceptible to Fusarium Head Blight (Scab).

§ Varieties are not evaluated in this zone, however it is suggested to select a variety that appears frequently in the recommended list across all zones for the state or neighboring zones.



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### Trial Highlights

Spring wheat variety selection is a significant and important management decision on the farm. The yield difference in 2014 between the highest and lowest performing varieties in East River South Dakota was 24 bu/acre (Table 1b). Assuming an average cash price of \$5.00, the difference in profit per acre attributed to variety selection could be as much as \$120/acre. The yield difference in 2014 between the highest and lowest performing varieties in West River South Dakota was 8 bu/acre (Table 2). Assuming an average cash price of \$5.00, the difference in profit per acre attributed to variety selection could be as much as \$40/acre.

For eastern (East River) locations, the average yield from spring wheat variety trials was 7 bu/ac higher than in 2013, at 66 bu/ac (Table 1b). Lowest and highest yielding locations were at South Shore (61 bu/ac) and Selby (74 bu/ac), respectively. Varieties that made the top yield group were **LCS Albany, Faller, Prosper, MS Stingray, Traverse, and HRS 3419**. For western (West River) locations, the average yield at from spring wheat variety trials was 6 bu/ac lower than in 2013, at 46 bu/ac (Table 2). Lowest and highest yielding locations were Bison (27 bu/ac) and Draper (62 bu/ac), respectively. Varieties that made the top yield group at all three locations were **Forefront, and Samson**.

Overall, South Dakota experienced a relatively normal to dry spring followed by a cool growing season. Precipitation was variable, as some areas received almost no rainfall from late spring to early summer while others experienced record rain events. Mid-late summer was cool and moist in many areas, contributing to a drawn-out harvest period. Some areas (especially the north-east corner of the state) experienced significant Fusarium head blight (scab) pressure. Due to the cool, extended grain-fill period, later-maturing varieties performed well this year. For example, in eastern locations, the top yielding varieties **LCS Albany, Faller, Prosper, MS Stingray, Traverse, and HRS 3419** are an average of six days later than the check variety **Brick**. During the hot, dry year growing season of 2012, early maturing varieties such as **Brick, Select, and Forefront** tended to perform better. Due to the variability of South Dakota weather, it is important to select complementary varieties with a range of maturities each year. To maximize the utility of the crop performance testing trials, we encourage growers to identify varieties with a proven record of performance of over a 3-yr period (Table 3) and more specifically those recommended varieties on the previous page. There were six varieties in the top yield group for both East and West River locations (Table 3) over the last 3 years: **Breaker, Forefront,**

**Prevail, Prosper, Select, and Traverse**. The testing program often has the opportunity to test experimental lines that later have potential to be released as varieties (Table 4), i.e. **SD 4362**. Also, the spring wheat variety characteristics or qualities in Table 4 may be used to select for factors that provide good protection against yield-limiting factors in various production systems, i.e. lodging, low protein, or Fusarium head blight (scab).

### Practices and Methods

**East River:** Four replications of each variety are planted at each location. Locations are seeded at 42 pure live seeds (PLS)/ft<sup>2</sup> or about 1.8 million seeds/ac by a drill with 7.5-inch row spacing. Plots are 5-ft wide and 13-ft long at harvest performed with the small-plot combine. Plots are fertilizer appropriately to achieve 60 to 70 bu/ac yield goals. The previous crop at all locations was soybeans. No-till planting was performed at the Aberdeen, Selby, Faulkton, and Miller locations while conventional-tillage was used at the Volga and South Shore locations. The planting dates for Aberdeen, Faulkton, Volga, Miller, Selby, and South Shore were Apr. 15, Apr. 21, Apr. 22, Apr. 14, May 5, and May 6, respectively.

**West River:** Four replications of each variety are planted at each location. Locations are seeded at 28 pure live seeds (PLS)/ft<sup>2</sup> or about 1.2 million seeds/ac by a drill with 10-inch row spacing. Plots are 5-ft wide and 25-ft long at harvest performed with the small-plot combine. Plots are fertilizer appropriately to achieve 45 to 60 bu/ac yield goals. The previous crops at Wall, Draper, and Bison were winter wheat, sunflower, and spring wheat, respectively. The planting dates for Wall, Draper, and Bison were Apr. 8, Apr 9, and Apr. 22, respectively.

### Acknowledgments

The efforts of the following groups and people are gratefully appreciated: Foundation Seed Stocks – J. Ingemansen, Spring Wheat Breeding Project – K. Glover and G. Redenius, Plant Pathology – S. Ali, Brookings Agronomy Farm – D. Doyle and Staff, Northeast Research Farm (South Shore) – A. Heuer, G. & R. Locken (Aberdeen), D. Shea (Bison), P. Patterson (Draper), R. Melius (Faulkton), D. Patterson (Wall), M. Winters (Miller), and T. Fiedler (Selby), and the SD Wheat Commission.



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## 2014 South Dakota Spring Wheat Variety Trial Results

Table 1a. 2014 East River Spring Wheat Performance - yield (13.5% moisture), test weight (harvest moisture), and protein (12% moisture).

Variety	Crop Zone - 1 (See map on page 1)						Crop Zone - 2					
	Aberdeen			Selby			South Shore			Volga		
	Yield	Protein %	Test Wt.	Yield	Protein %	Test Wt.	Yield	Protein %	Test Wt.	Yield	Protein %	Test Wt.
Advance	74	14.3	59.7	82	14.3	58.8	58	13.9	53.1	60	14.3	54.4
LCS Albany	80	13.5	58.2	73	13.4	57.3	62	13.0	53.0	70	13.0	53.5
Barlow	68	14.7	58.7	73	14.7	58.4	55	14.4	50.6	59	14.2	54.4
LCS Breakaway	69	14.5	57.3	73	15.6	58.5	56	14.1	52.7	67	14.5	55.9
Breaker	66	14.6	58.6	76	14.5	59.0	65	14.2	53.8	64	14.1	55.3
Brick	67	15.2	59.5	70	15.3	60.6	58	14.3	54.7	70	14.7	57.4
Briggs	67	15.2	58.5	74	15.5	56.7	58	14.3	50.8	60	14.5	54.1
MS Chevelle	75	13.3	57.8	81	14.0	58.5	54	13.8	47.6	63	14.0	53.5
WB-Digger	66	14.3	56.4	80	14.7	58.4	63	14.1	51.2	56	14.6	51.5
Elgin-ND	69	14.7	58.9	77	14.9	57.5	62	14.2	53.0	61	14.6	53.3
Faller	79	14.0	59.3	87	14.5	58.6	72	13.8	54.6	72	13.5	55.1
Forefront	74	14.7	59.9	57	15.3	57.5	62	14.1	53.8	69	14.0	56.9
Glenn	69	15.3	58.4	67	15.7	59.0	53	14.7	51.9	63	14.7	55.3
LCS Iguacu	79	13.7	59.7	66	14.1	57.0	70	12.9	53.3	70	12.8	54.6
SY Ingmar	75	14.5	57.9	83	15.2	59.2	67	14.0	53.8	62	14.4	54.9
Linkert	65	15.4	57.9	80	15.7	57.5	60	14.5	53.5	56	14.8	54.1
WB-Mayville	64	14.7	53.2	77	15.1	56.6	59	14.2	50.2	59	14.9	51.8
Mott	68	15.6	59.0	74	15.0	57.5	63	14.1	53.8	61	14.2	53.5
Norden	65	14.5	57.6	78	14.3	59.2	58	13.9	52.5	56	14.4	53.5
LCS Powerplay	72	14.4	58.8	81	14.2	58.1	60	14.3	53.3	63	14.3	53.8
Prevail	73	14.1	58.0	74	15.1	58.3	73	13.6	55.5	70	13.9	55.1
Prosper	79	13.9	58.1	90	14.8	58.7	71	13.8	54.3	70	13.9	54.2
RB07	75	14.7	58.4	83	15.4	58.6	55	14.3	50.8	60	14.3	53.3
Rollag	72	15.3	58.7	69	15.4	59.8	58	14.5	53.1	60	15.2	54.1
SY Rowyn	78	14.0	59.8	77	14.6	57.7	61	13.8	53.3	61	14.2	55.4
Sabin	75	14.6	59.5	80	14.9	59.0	63	14.3	53.9	59	14.6	55.1
Samson	59	14.6	52.8	76	15.2	56.3	62	14.2	50.4	54	14.5	50.5
Select	76	14.4	60.8	68	15.3	58.3	47	14.2	48.6	64	13.7	55.2
MS Stingray	82	12.8	56.6	89	13.4	57.2	74	13.0	52.7	74	12.5	54.2
Traverse	78	13.7	56.8	85	14.6	56.2	64	14.3	49.0	70	14.0	52.5
Velva	60	14.4	53.3	80	14.5	57.0	58	14.3	50.1	43	14.9	49.3
WB9507	74	14.3	57.1	77	15.1	56.4	64	14.1	52.0	76	14.2	54.4
WB9879C1p	55	14.5	50.9	75	15.0	56.9	44	14.4	46.9	41	14.4	45.2
HRS 3361	72	14.7	57.4	73	14.5	57.1	64	14.0	53.0	66	13.9	53.9
HRS 3378	70	13.8	58.4	74	14.4	57.2	50	14.1	50.8	60	14.0	54.4
HRS 3419	78	13.7	60.5	79	13.7	57.9	60	13.5	52.9	72	13.4	54.2
SD 4362	71	14.7	58.3	78	15.7	58.8	70	14.1	54.7	73	14.4	56.9
<b>Trial Average</b>	71	14.5	58.0	74	14.9	57.9	61	14.1	52.3	63	14.3	54.2
<b>LSD(0.05)†</b>	5	1.0	1.5	6	0.7	1.2	6	0.4	1.3	5	0.5	3.3
<b>TPG value‡</b>	77	14.8	59.3	84	15.4	59.4	68	14.8	54.2	71	15.1	57.7
<b>C.V.§</b>	5.2	5.1	1.8	5.8	3.2	1.5	6.7	2.2	1.8	5.4	2.3	4.4

† Yield, protein, or test weight value required ( $\geq$ LSD) to determine if varieties are statistically different than one another, ‡ minimum value required to be in the top performance group (TPG) of varieties, § Coefficient of Variation (C.V.) is a measure of the variability of the experimental error, 15% or less is acceptable.

Table 1a. 2014 East River Spring Wheat Performance - yield (13.5% moisture), test weight (harvest moisture), and protein (12% moisture).

Variety	Crop Zone - 4						Crop Zones - 1,2, & 4			
	Faulkton			Miller			East river			
	Yield	Protein %	Test Wt.	Yield	Protein %	Test Wt.	Yield	TYG %	Protein %	Test Wt.
Advance	64	14.6	58.4	67	14.6	59.6	67	0	14.4	57.3
LCS Albany	71	13.7	58.0	73	14.1	58.3	72	50	13.4	56.4
Barlow	63	15.2	58.7	66	15.6	58.3	64	0	14.8	56.5
LCS Breakaway	56	15.6	58.3	61	15.2	58.8	64	0	14.9	56.9
Breaker	64	14.8	59.7	65	14.4	59.2	67	0	14.4	57.6
Brick	64	15.2	59.9	67	14.7	59.0	66	0	14.9	58.5
Briggs	58	15.5	58.1	63	15.4	57.5	63	0	15.0	55.9
MS Chevelle	63	14.5	57.4	75	14.1	58.7	68	17	13.9	55.6
WB-Digger	54	14.9	55.0	62	15.2	58.1	64	0	14.6	55.1
Elgin-ND	60	15.0	56.7	60	14.7	59.3	65	0	14.7	56.4
Faller	67	14.8	57.9	72	13.9	59.3	75	100	14.1	57.5
Forefront	66	15.0	59.2	62	15.5	59.1	65	0	14.8	57.7
Glenn	61	15.9	60.4	60	15.6	58.0	62	0	15.3	57.1
LCS Iguacu	66	13.8	58.8	67	13.9	58.2	70	33	13.5	56.9
SY Ingmar	61	15.1	58.1	64	14.8	59.0	69	0	14.7	57.2
Linkert	56	15.6	57.4	60	15.0	59.0	63	0	15.2	56.6
WB-Mayville	54	15.2	56.3	59	15.1	57.1	62	0	14.9	54.2
Mott	62	15.2	59.4	66	14.7	58.1	66	0	14.8	56.9
Norden	61	14.7	58.1	60	14.0	60.0	63	0	14.3	56.8
LCS Powerplay	63	15.1	58.6	61	14.8	58.5	67	0	14.5	56.8
Prevail	64	14.5	58.1	67	14.4	58.5	70	17	14.3	57.3
Prosper	66	14.6	58.2	72	13.7	59.2	75	67	14.1	57.1
RB07	64	14.9	58.8	61	14.4	59.7	66	0	14.7	56.6
Rollag	67	15.7	60.0	63	15.1	60.0	65	17	15.2	57.6
SY Rowyn	70	14.8	58.5	65	14.6	58.4	69	33	14.3	57.2
Sabin	62	14.7	59.6	67	14.6	59.9	68	0	14.6	57.9
Samson	48	15.0	52.7	58	14.6	56.2	60	0	14.7	53.1
Select	65	15.2	60.5	63	15.1	59.4	64	0	14.7	57.1
MS Stingray	70	13.7	57.1	76	13.7	58.5	78	100	13.2	56.1
Traverse	68	14.4	56.3	72	14.1	56.3	73	67	14.2	54.5
Velva	48	15.2	53.2	68	14.7	56.4	59	0	14.7	53.2
WB9507	66	15.3	55.2	69	15.1	58.4	71	17	14.7	55.6
WB9879Clp	47	15.0	52.1	64	14.3	56.4	54	0	14.6	51.4
HRS 3361	62	15.1	57.5	62	15.3	57.9	67	0	14.6	56.1
HRS 3378	60	14.5	58.5	67	14.3	59.0	64	0	14.2	56.4
HRS 3419	65	14.5	57.0	76	13.4	58.0	72	50	13.7	56.7
SD 4362	64	15.2	60.7	58	14.2	59.1	69	33	14.7	58.1
<b>Trial Average</b>	62	15.0	58.0	65	14.8	58.8	66	-	14.6	56.5
<b>LSD(0.05)†</b>	4	0.4	1.2	6	1.0	1.4	6	-	0.4	1.4
<b>TPG value‡</b>	67	15.9	59.5	70	15.5	58.6	72	-	15.4	57.3
<b>C.V.§</b>	4.9	1.6	1.5	6.7	5.1	1.7	5.8	-	1.8	2.3

† Yield, protein, or test weight value required ( $\geq$ LSD) to determine if varieties are statistically different than one another, ‡ minimum value required to be in the top performance group (TPG) of varieties, § Coefficient of Variation (C.V.) is a measure of the variability of the experimental error, 15% or less is acceptable.

Table 2. 2014 West River Spring Wheat Performance - yield (13.5% moisture), test weight (harvest moisture), and protein (12% moisture).

Variety	Crop Zone - 6						Crop Zone - 7			Crop Zones - 6 & 7			
	Draper			Wall			Bison			West River			
	Yield	Protein %	Test Wt.	Yield	Protein %	Test Wt.	Yield	Test Wt.	Protein %	Yield	TYG %	Protein %	Test Wt.
Advance	63	15.0	54.6	44	15.2	59.9	27	47.8	-	45	33	15.1	54.1
LCS Albany	64	15.1	57.0	48	15.2	57.6	25	49.9	-	46	33	15.2	54.8
Barlow	59	15.6	60.3	48	15.3	58.8	26	50.6	-	45	0	15.5	56.6
LCS Breakaway	63	15.4	57.9	48	15.4	59.9	26	51.0	-	46	0	15.4	56.3
Breaker	58	15.6	58.9	51	15.2	58.5	27	52.1	-	45	33	15.4	56.5
Brick	62	16.8	59.2	52	14.6	60.1	26	51.4	-	47	33	15.7	56.9
Briggs	64	16.6	56.0	51	15.3	60.2	30	48.9	-	48	67	15.9	55.0
MS Chevelle	60	13.1	56.6	56	14.9	58.3	28	52.5	-	48	67	14.0	55.8
WB-Digger	65	14.5	55.0	63	15.5	57.5	26	52.4	-	46	67	15.0	55.0
Elgin-ND	64	15.5	56.7	51	14.8	58.3	30	40.5	-	48	67	15.1	51.8
Faller	61	14.1	55.2	49	15.5	58.8	28	51.4	-	46	33	14.8	55.1
Forefront	69	15.0	59.9	52	15.2	61.4	27	50.3	-	50	100	15.1	57.2
Glenn	67	14.4	55.0	50	15.6	60.7	31	53.3	-	49	67	15.0	56.3
LCS Iguacu	64	14.6	58.2	47	14.5	59.8	22	47.0	-	45	33	14.6	55.0
SY Ingmar	56	15.6	56.5	47	15.1	58.8	25	49.1	-	43	0	15.3	54.8
Linkert	61	15.3	57.7	50	15.2	59.6	28	46.6	-	46	33	15.3	54.6
WB-Mayville	55	14.4	48.1	47	15.2	58.1	25	52.1	-	43	0	14.8	52.8
Mott	63	13.5	59.0	45	15.5	57.5	26	52.7	-	45	0	14.5	56.4
Norden	60	13.6	59.5	51	14.8	58.8	24	50.0	-	45	0	14.2	56.1
LCS Powerplay	65	13.9	58.0	49	15.1	59.3	26	54.1	-	47	33	14.5	57.1
Prevail	73	14.2	57.8	49	15.6	60.1	29	50.6	-	49	67	14.9	56.2
Prosper	62	14.5	55.7	54	15.4	57.7	33	50.9	-	49	67	15.0	54.8
RB07	63	-	57.7	47	14.9	60.1	29	47.1	-	46	33	14.9	55.0
Rollag	59	16.0	59.0	41	15.3	59.7	28	54.4	-	42	33	15.6	57.7
SY Rowyn	62	14.7	58.2	42	15.1	58.1	24	48.9	-	43	0	14.9	55.1
Sabin	66	15.4	58.9	48	15.1	59.2	26	49.5	-	46	33	15.2	55.9
Samson	65	14.0	56.5	52	15.0	58.8	28	50.0	-	48	100	14.5	55.1
Select	66	12.7	59.1	47	15.0	61.0	24	52.2	-	46	33	13.9	57.4
MS Stingray	69	12.9	56.8	51	14.9	57.6	30	45.9	-	50	67	13.9	53.4
Traverse	59	ND	55.9	58	15.2	58.4	29	51.0	-	49	67	15.2	55.1
Velva	56	14.7	54.6	59	15.3	57.1	28	50.6	-	48	67	15.0	54.1
WB9507	60	15.0	56.2	53	15.1	59.0	27	51.3	-	52	67	15.0	55.5
WB9879C1p	59	14.5	57.2	46	15.3	58.4	24	50.0	-	42	0	14.9	55.2
HRS 3361	60	13.5	56.8	46	14.9	58.3	27	50.2	-	44	33	14.2	55.1
HRS 3378	64	12.8	57.0	46	15.3	59.9	24	47.8	-	45	33	14.1	54.9
HRS 3419	58	12.7	57.3	56	15.2	56.4	20	50.9	-	46	33	13.9	54.9
SD 4362	63	15.3	59.7	56	15.2	61.5	30	41.7	-	50	67	15.2	54.3
<b>Trial Average</b>	62	14.6	57.1	50	15.2	59.0	27	49.9	-	46	-	15.0	55.4
<b>LSD(0.05)†</b>	9	-	2.1	11	0.8	1.3	7	7.7	-	5	-	-	2.7
<b>TPG value‡</b>	64	-	58.9	52	15.0	60.3	27	53.1	-	47	-	-	55.6
<b>C.V.§</b>	11	-	4.2	16	3.8	10.6	18	10.7	-	14.4	-	-	9.3

† Yield, protein, or test weight value required ( $\geq$ LSD) to determine if varieties are statistically different than one another, ‡ minimum value required to be in the top performance group (TPG) of varieties, § Coefficient of Variation (C.V.) is a measure of the variability of the experimental error, 15% or less is acceptable.

Table 3. 2012-2014 (3-year) Spring Wheat Yield Performance (bu/acre @ 13.5% moisture).

Variety	Crop Zone - 1		Crop Zone - 2		Crop Zone - 4		East River	Crop Zone - 6		Crop Zone - 7	West River
	Aberdeen	Selby	South Shore	Volga	Faulkton*	Miller	3-yr	Draper	Wall	Bison	3-yr
Advance	63	68	56	60	60	62	61	-	51	-	43
LCS Albany	64	65	60	62	63	63	63	-	49	-	43
Barlow	62	63	55	56	49	59	57	-	51	-	47
LCS Breakaway	62	63	52	61	49	56	57	-	50	-	43
Breaker	59	65	60	58	55	60	59	-	49	-	45
Brick	62	61	55	59	51	59	58	-	52	-	49
Briggs	62	62	55	56	54	58	58	-	52	-	47
MS Chevelle	-	-	-	-	-	-	-	-	-	-	-
WB-Digger	-	-	-	-	-	-	-	-	-	-	-
Elgin-ND	61	63	56	55	50	58	57	-	51	-	45
Faller	63	70	61	64	59	62	63	-	46	-	36
Forefront	65	60	58	62	57	59	60	-	54	-	49
Glenn	-	-	-	-	-	-	-	-	-	-	-
LCS Iguacu	-	-	-	-	-	-	-	-	-	-	-
SY Ingmar	-	-	-	-	-	-	-	-	-	-	-
Linkert	61	64	56	52	49	56	56	-	50	-	44
WB-Mayville	59	65	57	54	48	57	57	-	46	-	37
Mott	56	64	57	54	54	57	57	-	48	-	41
Norden	59	65	56	52	48	58	56	-	49	-	44
LCS Powerplay	59	63	56	56	50	60	57	-	50	-	44
Prevail	65	63	65	62	55	62	62	-	54	-	45
Prosper	64	71	59	65	60	65	64	-	51	-	44
RB07	64	64	53	55	54	60	58	-	52	-	45
Rollag	63	60	54	54	50	60	57	-	45	-	38
SY Rowyn	-	-	-	-	-	-	-	-	-	-	-
Sabin	63	66	54	52	53	58	58	-	51	-	43
Samson	58	62	57	54	49	56	56	-	51	-	46
Select	65	62	53	57	54	60	59	-	50	-	44
MS Stingray	-	-	-	-	-	-	-	-	-	-	-
Traverse	67	70	61	61	56	62	63	-	52	-	49
Velva	55	66	57	48	51	59	56	-	53	-	49
WB9507	-	-	-	-	-	-	-	-	-	-	-
WB9879Clp	51	63	40	36	42	56	48	-	49	-	43
HRS 3361	-	-	-	-	-	-	-	-	-	-	-
HRS 3378	-	-	-	-	-	-	-	-	-	-	-
HRS 3419	-	-	-	-	-	-	-	-	-	-	-
SD 4362	-	-	-	-	-	-	-	-	-	-	-
LSD(0.05)†	3	3	3	3	3	4	5	-	5	-	5
TYG‡	64	68	62	62	60	61	59	-	49	-	44

\* Faulkton was a new location in 2014. Yields from the Frankfort location in 2012 and 2013 were used in the 3 year average.

† Yield value required ( $\geq$ LSD) to determine if varieties are statistically different than one another.

‡ Minimum value required for a variety to qualify for the top yield group (TYG).

Table 4. Spring wheat variety origin agronomic characteristics, grain quality, and disease ratings.

Variety <sup>PVP*</sup>	Testing and Origin		Agronomic Characteristics			Grain Quality <sup>¶</sup>		Disease Ratings <sup>#</sup>				2014 FHB (scab)
	Years Tested in SD	Origin†- Year	Rel.‡ Hdg	Rel.‡ Ht	Lodging	Test Wt.	Protein %	Stripe Rust	Stem Rust	Leaf Rust	Tan Spot/SNB	
Advance	5+	SD-11	4	-2	2.1	Average	Average	MR	R-MR	MR-MS	S/R	MR
LCS Albany	5+	LCS-09	6	-3	2.3	Average	Low	MR	R	MS	MR/R	MR
Barlow	5+	ND-09	3	0	2.1	Average	Average	NR	R-MR	MS	S/S	MR
LCS Breakaway	3	LCS-12	1	-2	1.6	Average	Average	MR	-	S	S/S	MS
Breaker	5+	WB-07	4	-1	1.7	Good	Average	S	R	MS	R/S	MR
Brick	5+	SD-08	0	0	2.0	Good	Average	-	R	MR-MS	S/S	R
Briggs	5+	SD-02	1	1	2.1	Average	Average	MR	R-MR	MS	S/MS	MS
MS Chevelle	new	MS-14	4	-3	2.3	Average	Adequate	(MR)	(MR)	(R)	-	MS
WB-Digger	2	WB-09	(7)§	0	1.8	Low	Average	(MS)	(R)	(MR)	(MR/MR)	MS
Elgin-ND	3	ND-12	5	3	2.0	Average	Average	-	R	MS	S/MS	MS
Faller	5+	ND-07	5	0	2.1	Good	Average	-	R	MS	S/MS	MR
Forefront	5+	SD-11	2	2	2.5	Good	Average	MR	R-MR	MS	S/S	MR
Glenn	5+	ND-05	2	1	1.8	Average	Good	-	(R)	(R)	(MS/MR)	R
LCS Iguacu	2	LCS-13	6	-1	1.7	Average	Low	MR	-	S	S/MR	MS
SY Ingmar	new	AP-14	5	-2	1.4	Average	Average	(MS)	(R)	(MR)	(MR/MR)	MR
Linkert	4	MN-13	4	-3	1.2	Average	Good	-	-	MR-MS	MS/MS	MR
WB-Mayville	4	WB-07	2	-3	1.3	V. Low	Average	S	MS	S	S/MS	S
Mott	5+	ND-09	6	4	1.8	Average	Average	-	MR	MS	S/S	MR
Norden	4	MN-12	5	-2	1.5	Average	Average	-	R	S	S/MS	MR
LCS Powerplay	4	LCS-11	4	-2	2.1	Average	Average	MR	-	MR	S/S	MR
Prevail	4	SD-14	2	-1	1.6	Average	Average	-	MR	MS	S/MR	MR
Prosper	5+	ND-11	5	0	1.9	Average	Average	-	R	MR	S/MS	MR
RB07	5+	MN-07	3	-1	2.2	Average	Average	MS	MR	MR	S/S	MS
Rollag	5	MN-11	3	-4	2.1	Good	Good	-	R	S	S/MR	MR
SY Rowyn	2	AP-13	4	-3	2.5	Average	Average	MS	R	MS	S/MS	R
Sabin	5+	MN-09	5	0	2.5	Good	Average	-	R	S	MS/MS	R
Samson	5+	WB-07	3	-3	1.6	V. Low	Average	S	R	MS	MS/MR	S
Select	5+	SD-09	0	0	2.0	Average	Average	MR	R-MR	MR-MS	S/S	MR
MS Stingray	2	MS-14	9	0	1.5	Average	Low	-	MR	S	S/R	MR
Traverse	5+	SD-06	2	1	1.9	Low	Average	MR	MR	MS	S/S	MR
Velva	5	ND-11	7	1	1.5	V. Low	Average	-	R	MS	S/MS	MS
WB9507	new	WB-14	(3)	-1	2.0	Average	Average	(MS)	(MR)	(MR)	(R/-)	R
WB9879Clp	3	WB-12	2	0	1.5	V. Low	Average	MR	-	S	S/MR	S
HRS 3361	new	CP-13	5	-1	1.7	Average	Average	-	(MR)	(MR)	(R/-)	MR
HRS 3378	new	CP-13	6	-2	1.7	Average	Average	-	(R)	(R)	(MR/-)	MR
HRS 3419	new	CP-14	11	-2	1.4	Average	Adequate	-	(R)	(R)	(R/-)	MR
SD 4362	2	SD-15	1	2	2.0	Good	Average	-	-	S	S/S	MR

\* All varieties listed have plant variety protection (PVP) status, status that is pending, or PVP status that will be obtained if released (experimental lines).

† AP-AgriPro; CP-Croplan; LCS-Limagrain Cereal Seeds; MN-Minnesota; MS-Meridian Seeds; ND-North Dakota; SD-South Dakota; WB-WestBred and (year of release).

‡ Difference in days to heading compared to Brick. Height compared to Brick (33 inches) in 2014 East River trials.

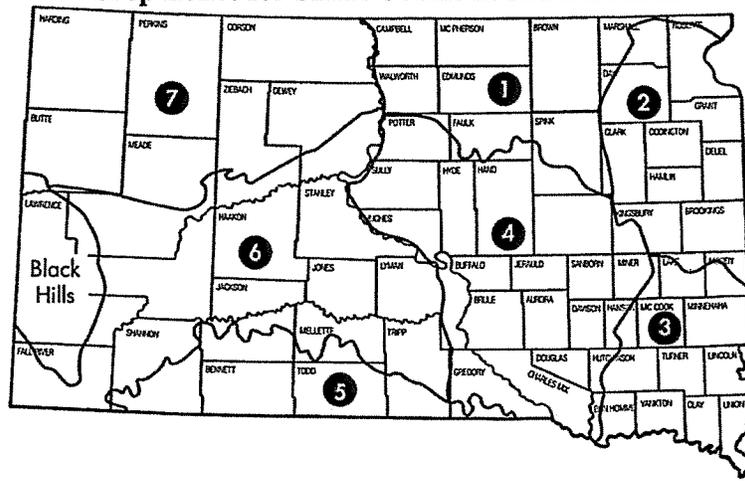
¶ Based on 2014 East River trials for test weight and protein.

# Disease ratings: R-resistant; MR-moderately resistant, MS-moderately susceptible; S-susceptible; VS-very susceptible.

§ Estimated rankings based on other state trials and information provided by the entity that submitted the variety.

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**Crop Zones for Small Grains in South Dakota**



**Recommended/Promising Winter Wheat Varieties for Fall 2013 by Crop Zones†**

Zone – 1 <sup>pc</sup>	Zone – 2 <sup>pc</sup>	Zone – 3	Zone – 4 <sup>pc</sup>	Zone – 5	Zone – 6	Zone – 7 <sup>pc</sup>
<b>Hard Red Varieties – Recommended</b>						
Expedition Ideal‡ Lyman Millennium‡ Overland Redfield Settler CL‡ SY Wolf‡	Expedition Ideal Lyman Overland Redfield Settler CL SY Wolf	Expedition Ideal Lyman Overland Redfield Settler CL <sup>pc</sup> SY Wolf <sup>pc</sup>	Expedition Ideal Lyman Millennium Overland Redfield Settler CL SY Wolf	Ideal Lyman Millennium Overland Redfield SY Wolf <sup>pc</sup>	Ideal Lyman Millennium Overland Redfield SY Wolf <sup>pc</sup>	Ideal Lyman Millennium Overland Redfield SY Wolf
<b>Promising</b>						
Freeman WB Grainfield WB Matlock‡	Freeman WB Grainfield WB Matlock	Freeman WB Grainfield WB Matlock	Freeman WB Grainfield WB Matlock	LCS Mint	LCS Mint	LCS Mint

† Crop Zones (1-7) for small grains are based on soil & climate information.

<sup>pc</sup> plant in protective cover to improve winter survival in Crop Zones 1, 2, 4, & 7 and in other zones on designated varieties.

‡ Varieties susceptible to Fusarium Head Blight (Scab) include Ideal, WB Matlock, Millennium, Settler CL, and SY Wolf.

## 2014 Winter Wheat Variety Trial Results

Table 1a. 2014 East River Winter Wheat Performance - Average Yield (bu/ac at 13% moisture), Protein (%), and Test Weight (lbs/bu).

Variety	Crop Zone - 2						Crop Zone - 3		
	Brookings w/Fung.#			Brookings			Beresford		
	Yield	Protein	Test Wt.	Yield	Protein	Test Wt.	Yield	Protein	Test Wt.
1863†	72	12.0	59.6	62	12.1	59.6	53	14.0	60.0
Alice (White)	61	13.2	58.9	47	13.6	55.2	41	14.9	59.9
Arapahoe	60	12.8	58.2	51	13.0	57.1	52	14.6	57.9
Brawl CL Plus†	52	13.4	58.4	44	14.0	53.9	45	14.9	57.5
Byrd†	56	12.4	58.3	51	12.5	54.5	49	13.4	58.0
WB Cedar	49	13.1	58.1	50	12.9	55.6	47	14.9	56.7
Decade†	55	14.5	56.8	56	13.6	55.8	58	15.0	56.4
Denali†	60	12.0	57.1	49	12.6	54.3	53	12.7	59.2
Everest	58	13.1	60.5	56	13.1	59.8	46	15.1	56.9
Expedition	58	12.8	61.9	49	12.8	58.0	50	14.7	57.8
Freeman	72	12.8	57.8	65	12.8	57.6	63	13.9	58.9
WB Grainfield	64	12.8	58.7	63	12.7	58.3	58	14.9	58.8
Ideal	68	12.7	58.2	58	12.6	55.6	68	13.7	57.9
Jagalene-Check	63	13.5	56.8	50	13.9	52.6	51	13.9	59.7
Jerry	65	12.8	58.1	50	13.0	57.5	60	14.6	59.6
Lyman	67	13.0	62.3	60	12.9	60.5	58	15.4	58.1
WB Matlock	73	13.0	60.8	54	13.6	58.8	67	14.5	59.6
Millenium	63	12.7	58.8	49	13.1	57.5	56	14.8	56.0
LCS Mint	65	13.0	57.8	62	12.7	57.6	50	14.0	58.4
Overland	69	12.8	59.9	58	12.6	59.1	63	14.6	58.5
Redfield	61	12.9	59.0	54	13.4	57.3	60	14.0	58.4
WB Redhawk	45	14.1	53.6	47	14.0	54.5	35	16.3	56.0
Robidoux	49	13.6	53.9	38	14.2	50.2	46	13.5	56.1
Settler CL	54	13.0	58.9	50	13.1	57.5	48	13.9	57.5
T158	57	12.6	57.9	49	12.8	54.1	35	14.0	58.2
Wesley	61	14.1	57.3	60	13.4	58.2	50	14.8	58.2
SY-Wolf	71	13.5	58.4	67	13.5	57.8	62	14.7	56.7
<b>Trial Average</b>	60	13.0	58.1	53	13.1	56.5	54	14.4	57.8
<b>LSD (0.05)*</b>	9	0.8	2.7	6	0.6	2.8	8	0.3	1.5
<b>TPG value§</b>	64	13.7	59.6	61	13.6	57.7	60	16.0	58.5
<b>C.V. ¶</b>	10.5	4.3	3.3	8.5	3.3	3.6	10.3	1.7	1.9

† New entry in 2014, not previously tested.

# Foliar fungicide applied at flowering.

\* If the difference between two varieties within a column equals or exceeds the LSD value, the difference is significant, if not, the difference is insignificant at the 0.05 level of probability.

§ Minimum value required for a variety to qualify for the top yield group (TYG).

¶ A measure of experimental error, 15% or less is acceptable.

## 2014 Winter Wheat Variety Trial Results

Table 1b. 2014 East River Winter Wheat Performance - Average Yield (bu/ac at 13% moisture), Protein (%), and Test Weight (lbs/bu).

Variety	Crop Zone - 4						Crop Zones - 2, 3, & 4			
	Onida			Pierre			East River Average‡			
	Yield	Protein	Test Wt.	Yield	Protein	Test Wt.	Yield	TYG%	Protein	Test Wt.
1863†	96	12.9	61.9	81	13.3	61.9	72	60	12.9	60.6
Alice (White)	82	13.2	60.2	78	13.5	61.3	62	0	13.7	58.7
Arapahoe	80	13.8	59.3	78	14.3	60.6	64	0	13.7	58.5
Brawl CL Plus†	72	13.9	61.0	74	13.6	61.6	57	0	13.9	58.6
Byrd†	85	12.7	60.6	87	12.5	61.4	66	0	12.7	58.2
WB Cedar	86	13.4	61.3	78	13.1	61.0	62	0	13.5	58.5
Decade†	98	14.8	59.1	85	14.7	61.6	70	20	14.5	58.5
Denali†	87	12.7	61.5	97	12.0	63.1	69	20	12.4	58.6
Everest	87	13.9	62.9	73	14.0	61.6	64	0	13.8	60.5
Expedition	86	13.2	61.3	71	14.1	61.7	63	0	13.5	60.3
Freeman	96	13.5	59.5	85	13.5	60.2	76	80	13.3	58.6
WB Grainfield	94	13.3	60.3	83	14.0	62.1	73	40	13.5	59.6
Ideal	104	13.5	61.5	96	13.3	62.8	79	80	13.2	59.5
Jagalene-Check	85	13.6	60.3	77	13.7	62.7	65	0	13.7	58.4
Jerry	79	14.0	59.2	78	13.6	61.8	67	40	13.6	59.0
Lyman	97	13.9	61.8	82	14.5	61.8	73	40	13.9	61.3
WB Matlock	87	13.9	60.9	83	13.8	62.1	73	40	13.8	60.4
Millenium	89	13.3	60.4	82	14.1	61.9	68	0	13.5	59.0
LCS Mint	95	13.6	61.1	82	13.8	63.2	71	60	13.4	59.5
Overland	89	13.6	60.2	81	14.1	61.6	72	40	13.5	59.8
Redfield	97	13.6	60.9	89	13.5	61.3	72	20	13.5	59.4
WB Redhawk	89	14.8	60.2	72	14.8	59.6	58	0	14.8	56.7
Robidoux	75	13.2	57.6	81	12.9	60.6	58	0	13.5	55.6
Settler CL	93	13.3	59.3	79	13.4	61.4	65	0	13.3	58.9
T158	88	12.6	59.9	76	12.5	60.6	61	0	12.9	58.1
Wesley	93	14.8	60.6	82	14.7	60.3	69	0	14.3	58.9
SY-Wolf	103	13.9	61.3	91	14.0	61.5	79	100	13.9	59.1
<b>Trial Average</b>	88	13.6	60.2	82	13.6	61.4	67	-	13.6	58.8
<b>LSD (0.05)*</b>	9	0.5	1.4	7	0.6	2.1	4	-	0.4	1.1
<b>TPG value§</b>	95	14.3	61.5	90	14.2	61.1	75	-	14.4	60.2
<b>C.V. ¶</b>	7.0	2.4	1.7	6.2	3.2	2.4	-	-	-	-

‡ Locations at Platte, Selby, and South Shore were abandoned due to wind damage, winterkill, and volunteer oats competition, respectively.

† New entry in 2014, not previously tested.

\* If the difference between two varieties within a column equals or exceeds the LSD value, the difference is significant, if not, the difference is insignificant at the 0.05 level of probability.

§ Minimum value required for a variety to qualify for the top yield group (TYG).

¶ A measure of experimental error, 15% or less is acceptable.

## 2014 Winter Wheat Variety Trial Results

Table 2a. 2014 West River Winter Wheat Performance - Average Yield (bu/ac at 13% moisture), Protein (%), and Test Weight (lbs/bu).

Variety	Crop Zone - 6												
	Kennebec			Sturgis		Wall		Winner			Winner w/Fung.#		
	Yield	Test Wt.	Protein	Yield	Test Wt.	Yield	Test Wt.	Yield	Protein	Test Wt.	Yield	Protein	Test Wt.
1863†	76	61.7	12.9	44	60.0	47	60.3	67	11.8	61.3	64	11.6	61.0
Alice (White)	80	62.7	13.1	44	59.8	43	56.1	63	12.2	60.6	58	11.8	60.2
Arapahoe	82	61.3	13.7	44	58.8	52	59.0	64	12.4	60.0	66	12.3	59.4
Brawl CL Plust	67	62.0	14.1	46	59.8	42	60.5	61	12.5	60.4	54	12.1	59.6
Byrd†	90	62.0	12.3	48	60.5	44	60.0	67	11.4	60.2	63	11.1	60.2
WB-Cedar	79	61.5	13.3	43	58.6	37	56.4	67	12.2	59.9	55	12.1	59.3
Decade†	99	62.5	13.7	51	59.5	64	58.9	79	13.2	60.5	75	13.3	59.3
Denali†	95	62.5	11.6	57	60.1	53	59.7	71	11.6	60.7	69	11.5	59.1
Everest	83	62.7	14.5	44	60.0	36	55.8	63	12.3	62.7	62	12.1	62.2
Expedition	87	63.2	13.4	48	60.0	40	59.1	69	11.8	60.4	62	11.7	60.0
Freeman	95	60.9	13.1	47	58.6	57	59.6	74	12.5	58.7	67	12.1	58.1
WB-Grainfield	84	61.6	13.0	47	59.7	49	59.9	78	12.4	59.1	65	12.3	58.8
Ideal	104	62.1	12.3	55	60.0	64	62.3	79	12.1	61.3	77	12.0	61.1
Jagalene-Check	86	62.8	12.6	48	61.2	52	57.4	75	12.2	61.3	65	12.5	59.8
Jerry	89	61.8	13.1	45	59.3	46	61.2	59	12.7	60.4	57	12.4	59.9
Lyman	89	62.8	14.9	51	60.2	55	62.0	73	12.4	61.7	72	11.8	61.5
WB-Matlock	91	63.4	12.7	50	60.1	48	60.7	64	13.3	60.8	63	12.5	61.5
Millenium	91	62.8	13.4	48	60.5	52	59.3	69	11.5	62.3	67	11.6	62.3
LCS Mint	90	63.3	13.2	56	61.6	48	56.1	76	12.1	61.8	74	12.1	60.2
Overland	91	62.2	13.2	46	58.8	44	60.0	75	11.3	61.9	67	11.5	61.5
Redfield	86	62.2	12.6	48	60.2	55	58.9	71	12.8	60.4	70	12.2	61.2
WB-Redhawk	69	59.7	15.1	45	60.0	37	55.3	60	13.0	61.4	56	12.7	59.5
Robidoux	88	61.3	12.3	49	59.9	46	55.6	56	12.6	57.0	55	12.0	59.0
Settler CL	89	61.6	13.4	53	60.3	46	59.7	66	12.1	59.3	67	11.6	59.9
T158	84	61.8	12.7	47	59.9	40	56.9	63	11.7	59.7	59	11.5	58.3
Wesley	89	62.0	14.4	46	58.2	50	59.1	72	13.2	59.9	74	12.8	60.0
SY-Wolf	93	57.8	14.4	54	60.0	53	55.9	80	12.5	61.5	79	12.2	60.1
<b>Trial Average</b>	87	61.4	13.3	48	59.7	49	58.5	69	12.3	60.5	65	12.0	60.0
<b>LSD (0.05)*</b>	12	5.3	1.0	5	1.4	7	3.5	8	0.6	1.5	8	0.6	1.7
<b>TPG value§</b>	92	58.1	14.1	52	60.8	58	58.8	72	12.7	61.2	71	12.7	60.6
<b>C.V. ¶</b>	9.7	6.1	5.5	12.4	2.0	18.6	5.6	8.2	3.3	1.7	9.0	3.5	1.9

† New entry in 2014, not previously tested.

# Foliar fungicide applied at flowering.

\* If the difference between two varieties within a column equals or exceeds the LSD value, the difference is significant, if not, the difference is insignificant at the 0.05 level of probability.

§ Minimum value required for a variety to qualify for the top yield group (TYG).

¶ A measure of experimental error, 15% or less is acceptable.

## 2014 Winter Wheat Variety Trial Results

Table 2b. 2014 West River Winter Wheat Performance - Average Yield (bu/ac at 13% moisture), Protein (%), and Test Weight (lbs/bu).										
Variety	Crop Zone - 5		Crop Zone 7				Crop Zones - 5, 6, & 7			
	Martin		Bison		McLaughlin		West River Average‡			
	Yield	Test Wt.	Yield	Test Wt.	Yield	Test Wt.	Yield	TYG%	Protein	Test Wt.
1863†	46	62.4	30	54.8	40	55.4	55	0	11.3	60.6
Alice (White)	43	60.1	29	54.1	54	58.6	55	14	12.4	59.7
Arapahoe	39	59.9	30	51.4	49	54.4	56	0	12.9	58.8
Brawl CL Plust	35	61.3	30	55.6	35	54.7	48	0	13.0	59.7
Byrd†	43	61.2	28	54.6	39	54.0	56	0	11.6	59.7
WB-Cedar	40	60.4	28	51.8	35	52.7	51	0	12.5	58.6
Decade†	53	60.9	38	55.9	46	52.2	67	71	13.4	59.4
Denali†	51	62.5	39	54.7	43	52.0	63	43	11.5	59.8
Everest	41	62.4	29	51.4	40	55.7	53	0	13.0	60.2
Expedition	43	57.9	32	55.3	46	56.1	56	0	12.4	59.5
Freeman	54	58.9	34	53.3	47	54.7	64	43	12.5	58.6
WB-Grainfield	42	61.1	27	55.0	42	53.9	59	14	12.5	59.4
Ideal	53	60.6	39	54.7	61	56.0	71	100	12.0	60.6
Jagalene-Check	43	61.6	30	55.1	42	51.4	60	14	12.5	59.9
Jerry	50	60.7	30	53.3	54	56.7	57	29	12.7	60.2
Lyman	50	62.1	40	56.3	56	54.0	64	57	13.2	61.2
WB-Matlock	50	60.7	36	55.3	55	57.1	60	29	12.8	60.7
Millenium	59	60.3	37	52.8	52	57.1	63	29	12.3	60.6
LCS Mint	55	60.4	36	55.4	45	54.0	64	57	12.4	59.8
Overland	58	60.5	38	55.9	52	56.8	62	43	12.1	60.2
Redfield	57	63.5	34	54.3	51	55.9	63	29	12.4	60.1
WB-Redhawk	42	59.4	27	52.6	24	52.1	49	0	13.3	58.4
Robidoux	48	60.6	26	53.0	36	52.8	54	14	12.1	58.0
Settler CL	50	59.9	41	53.2	42	53.3	59	29	12.2	59.1
T158	40	60.6	29	53.9	42	52.4	54	0	11.8	58.5
Wesley	51	60.8	35	53.3	43	52.1	61	43	13.3	58.9
SY-Wolf	47	61.0	44	53.7	57	53.7	66	71	12.9	58.6
<b>Trial Average</b>	47	60.4	34	54	49	54.6	59	-	12.5	59.4
<b>LSD (0.05)*</b>	11	2.7	5	NS	10	2.6	9	-	-	1.7
<b>TPG value§</b>	48	60.8	39	NA	51	56.0	62	-	-	59.5
<b>C.V. ¶</b>	21.4	3.7	21.5	6.1	18.6	4.1	-	-	-	-

‡ Location at Hayes was abandoned due to winterkill. The Bison location is excluded due to late harvest.

† New entry in 2014, not previously tested.

\* If the difference between two varieties within a column equals or exceeds the LSD value, the difference is significant, if not, the difference is insignificant at the 0.05 level of probability.

§ Minimum value required for a variety to qualify for the top yield group (TYG).

¶ A measure of experimental error, 15% or less is acceptable.

## 2014 Winter Wheat Variety Trial Results

Table 3. 2013-2014 (2-Yr Average) Winter wheat Variety Yield (bu/ac @ 13% moisture).

Variety	East River					West River				
	Crop Zone - 2		Crop Zone - 3	Crop Zone - 4	Crop Zone - 5	Crop Zone - 6			Crop Zone - 7	
	Brookings	Brookings w/Fung.#	Beresford	Pierre	Martin	Sturgis	Wall	Winner	Winner w/Fung.#	McLaughlin
1863†	-	-	-	-	-	-	-	-	-	-
Alice (White)	57	67	46	58	41	45	52	53	51	42
Arapahoe	55	62	51	57	36	45	54	58	59	42
Brawl CL Plust	-	-	-	-	-	-	-	-	-	-
Byrd†	-	-	-	-	-	-	-	-	-	-
WB Cedar	53	56	53	60	40	45	47	59	53	35
Decade†	-	-	-	-	-	-	-	-	-	-
Denali†	-	-	-	-	-	-	-	-	-	-
Everest	60	61	53	49	41	47	46	54	54	36
Expedition	55	66	54	53	43	47	48	60	56	41
Freeman	62	71	58	63	46	48	58	63	60	44
WB Grainfield	63	67	55	63	41	47	57	63	59	41
Ideal	60	68	64	71	47	58	60	67	66	53
Jagalene-Check	43	55	44	47	42	44	52	52	51	37
Jerry	56	69	52	61	45	45	50	55	57	42
Lyman	68	76	60	65	45	55	59	69	66	51
WB-Matlock	59	75	58	65	43	46	49	58	58	42
Millenium	55	67	57	64	51	49	58	63	63	48
LCS Mint	55	63	48	58	52	55	53	61	59	46
Overland	63	71	63	63	51	52	52	66	63	47
Redfield	59	68	56	62	50	51	59	61	59	48
WB Redhawk	46	45	43	52	43	48	51	56	54	33
Robidoux	34	58	34	53	47	48	51	45	45	31
Settler CL	54	59	53	59	48	51	53	59	63	41
T158	48	62	45	60	44	48	50	54	54	-
Wesley	56	62	52	57	47	47	53	62	63	43
SY-Wolf	67	71	64	66	48	51	60	69	68	51
<b>LSD (0.05)*</b>	5	6	5	5	8	7	7	7	6	7
<b>TYG value§</b>	63	70	59	66	44	51	53	62	62	46

† New entry in 2014, 2-yr average not available.

# Foliar fungicide applied at flowering.

\* If the difference between two varieties within a column equals or exceeds the LSD value, the difference is significant, if not, the difference is insignificant at the 0.05 level of probability.

§ Minimum value required for a variety to qualify for the top yield group (TYG).

## 2014 Winter Wheat Variety Trial Results

Table 4. 2012-2014 (3-Yr Average) Winter wheat Variety Yield (bu/ac @ 13% moisture).

Variety	East River			West River					
	Crop Zone - 2	Crop Zone - 3	Crop Zone - 4	Crop Zone - 5	Crop Zone - 6			Crop Zone - 7	
	Brookings w/Fung.#	Beresford	Pierre	Martin	Sturgis	Wall	Winner	Winner w/Fung.#	McLaughlin
1863†	-	-	-	-	-	-	-	-	-
Alice (White)	72	50	66	38	52	56	63	61	35
Arapahoe	69	52	63	33	51	57	63	65	37
Brawl CL Plust	-	-	-	-	-	-	-	-	-
Byrd†	-	-	-	-	-	-	-	-	-
WB Cedar†	-	-	-	-	-	-	-	-	-
Decade†	-	-	-	-	-	-	-	-	-
Denali†	-	-	-	-	-	-	-	-	-
Everest	65	54	63	37	54	53	63	61	35
Expedition	72	53	61	41	55	56	65	65	34
Freeman†	-	-	-	-	-	-	-	-	-
WB Grainfield†	-	-	-	-	-	-	-	-	-
Ideal	77	63	71	42	63	64	71	70	47
Jagalene-Check	65	46	54	38	47	55	58	57	33
Jerry	74	54	62	40	51	54	58	58	46
Lyman	79	60	70	40	60	64	73	72	42
WB-Matlock†	77	60	67	38	52	56	63	64	44
Millenium	72	61	72	44	57	61	68	72	44
LCS Mint†	-	-	-	-	-	-	-	-	-
Overland	76	65	74	43	57	59	72	73	39
Redfield	69	57	69	42	56	62	65	66	48
WB Redhawk†	57	50	64	38	55	57	63	63	30
Robidoux	71	45	66	42	56	62	60	59	31
Settler CL	67	55	67	45	58	60	66	71	33
T158†	-	-	-	-	-	-	-	-	-
Wesley	66	55	66	42	53	60	67	68	36
SY-Wolf	76	66	78	44	57	65	76	78	45
<b>LSD (0.05)*</b>	6	4	5	6	5	6	6	6	8
<b>TYG value §</b>	73	62	73	39	58	58	70	72	40

† New entry in 2013 or 2014, 3-yr average not available.

# Foliar fungicide applied at flowering.

\* If the difference between two varieties within a column equals or exceeds the LSD value, the difference is significant, if not, the difference is insignificant at the 0.05 level of probability.

§ Minimum value required for a variety to qualify for the top yield group (TYG).

## 2014 Winter Wheat Variety Trial Results

Table 5. List of 2014 winter wheat varieties being tested in 17 SDSU trials and their origin, characteristics, and grain quality.

Variety	Testing and Origin		Agronomic Characteristics				Grain Quality		
	Years Tested in SD Trials	Origin†-Year	Rel.‡ Hdg days	Rel.‡ Height inches	Lodging Res.§	Winter Hardness§	Test Wt.	Protein %	Baking Quality#
1863	new	KS-12	0	1	(G)¶	(G)	High	Low	(G)
Alice (White)	5+	SD-06	-1	-2	G	G-E	Good	Good	E
Arapahoe	5+	NE-99	2	2	F	G-E	Low	High	G
Brawl CL Plus	new	CO-11	-1	-1	(G)	-	Good	Good	(E)
Byrd	new	CO-11	-1	1	(F)	-	Good	Low	(E)
WB-Cedar	2	WB-10	-4	-4	E	G	Good	Good	A
Decade	new	MT/ND-10	4	4	(E)	(E)	Good	High	(A)
Denali	new	CO-11	3	3	(G)	-	Good	Low	(A)
Everest	4	KS-09	-3	-1	E	G	High	Good	A
<b>Expedition</b>	5+	SD-02	<u>0</u>	<u>0</u>	F-G	E	Good	Good	G
Freeman	2	NE-13	-1	0	G	G	Low	Low	A-G
WB-Grainfield	2	WB-12	-2	-1	G	G	Good	Good	G
Ideal	5+	SD-11	3	0	E	G-E	Good	Good	A
Jagalene-Check	5+	AP-01	2	-1	E	G	Low	High	A
Jerry <sub>no PVP</sub>	5+	ND-01	5	3	F-G	E	Good	High	G
Lyman	5+	SD-08	1	1	F	G-E	High	High	A
WB Matlock	4	WB-10	3	1	G	E	Good	High	G
Millennium	5+	NE-00	2	2	G	G	High	Good	F
LCS Mint	2	LCS-12	-2	1	G	G	High	Low	E
Overland	5+	NE-06	2	1	G	G-E	High	Low	F
WB Redhawk	3	WB-11	0	0	G	G	Good	High	G
Robidoux	4	NE-10	1	-1	G	G	Low	Low	G
Redfield	5+	SD-13	3	-1	E	G-E	Good	Good	G
Settler CL	5+	NE-08	0	0	G	F-G	Good	Low	A
T158	2	LCS-09	-5	-2	G	G	Good	Low	G
Wesley <sub>no PVP</sub>	5+	NE-99	1	-1	E	G	Low	High	G
SY Wolf	4	AP-11	-1	0	E	F-G	Good	Good	A

† AP, AgriPro; CO, Colorado; KS, Kansas; LCS, Limagrain Cereal Seeds; MT, Montana; ND, North Dakota; SD, South Dakota; WB, WestBred and – (Year of Release).

‡ Difference in days to heading compared to **Expedition** (2013 maturity notes from the Brookings). Height compared to **Expedition (30 inches)** in 2013 Statewide.

§ Lodging resistance and winter hardiness: E, excellent; G, good; F, fair; P, poor.

# Baking Quality: E, excellent; G, good; A, acceptable; F, fair.

¶ Estimated ratings (X), based on other state trials and information provided by entity that submitted the variety.

# 2014 Winter Wheat Variety Trial Results

Table 6. Winter wheat variety disease ratings.

Variety	Disease Ratings§					
	Stripe Rust	Stem Rust	Leaf Rust	Leaf Spot¶	Wheat Streak Mosaic	FHB (Scab)
1863†	-	-	-	MS	-	-
Alice (White)	MS	MR	MS	S	MS	S
Arapahoe	MS	MR	MR	S	S	MR
Brawl CL Plus†	-	-	-	S	-	-
Byrd†	-	-	-	S	-	-
WB Cedar	MR	MR	MS-MR	S	MS	-
Decade†	-	-	-	MR	-	-
Denali†	-	-	-	S	-	-
Everest	MS	MS	MR	S	MS	MR
Expedition	S	R	S	S	S	MR
Freeman	MS	MS-MR	MS-MR	S	-	MS
WB Grainfield	MR	-	MR	MR	-	-
Ideal	MS	MR	MR	MS	S	MS
Jagalene-Check	S	MS	S	MS	MS	S
Jerry	MR	R	MR	S	MS	S
Lyman	MS	R	R	MS	S	R
WB-Matlock	MS	MR	MR	MS	S	S
Millenium	MR	MR	MS	S	S	S
LCS Mint	MR	-	MS	MS	-	-
Overland	MR	MR	MR	S	MS	MR
Redfield	MR	MR	MS-MR	MS	S	MR
WB Redhawk	MS	-	MR	MS	-	-
Robidoux	MR	S	MS	S	S	S
Settler CL	MS	MR	MS-MR	S	MS	S
T158	R	-	MS	S	MS-MR	S
Wesley	MR	R	MS-MR	S	S	S
SY-Wolf	MR	MR	R	MS	MR	S

† New entry in 2014

§ Disease ratings: R, resistant; MR, moderately resistant; MS, moderately susceptible; S, susceptible, VS, very susceptible. Only Leaf Spot ratings were taken in 2014.

¶ No distinction was made between Tan Spot and Leaf Spot.