

Release of ‘Focus’ Hard Red Spring Wheat

Focus is a hard red spring wheat variety developed by the South Dakota Agricultural Experiment Station and will be released to Certified Seed growers in the spring of 2015. It was derived from the cross of SD3943-21/Brick.

Qualities associated with Focus include:

1. High Yield Potential
2. Exceptional Test Weight
3. Early Maturity
4. Moderately Resistant to FHB (Head Scab)

Focus is a day later than Brick in maturity and similar to Select. Test Weight is extremely high, similar to Brick and higher than most released varieties. Protein content is medium, similar to Brick and Select. Focus is slightly taller than Brick with similar straw strength. FHB (scab) tolerance is equal to Brick and superior to most of the released varieties.

There will be a \$0.60/bushel research fee on the sales of Registered and Certified Focus spring wheat and Plant Variety Protection will be applied for. More agronomic information is available at igrow.org. Focus was tested as SD4362.

2012-14 SDSU-CPT and Spring Wheat Breeder Trials

Variety	Maturity	Height	Test Weight	2014 East Yield	2014 West Yield
<i>Focus</i>	1	35	61.3	69	50
Brick	0	34	61.4	66	47
Select	1	34	60.6	64	46
Forefront	2	36	60.8	65	50
Prevail	2	33	60.3	70	49

2012-14 Spring Wheat Breeder Trials

Variety	Yield Bushel/Acre	Protein %	FHB % Damaged Kernels	Lodging Score (1-5) 1=Best
<i>Focus</i>	49	15.2	10.8	2.05
Brick	48	14.9	10.8	2.00
Select	49	14.8	19.8	1.98
Forefront	51	15.0	13.5	2.20
Prevail	51	14.5	15.3	1.65

2014 SDSU CPT Spring Wheat Yield Trials

Location	<i>Focus</i>	Brick	Select	Forefront	Prevail
Aberdeen	71	67	76	74	73
Selby	78	70	68	57	74
Watertown	70	58	47	62	73
Brookings	73	70	64	69	70
Faulkton	64	64	65	66	64
Miller	58	67	63	62	67
Draper	63	62	66	69	73
Wall	56	52	47	52	49
Bison	30	26	24	27	29

FOCUS HRSW (tested as SD4362) ND HRSW Variety Trials

Carrington 2014 HRSW Variety Trial Dryland											
Rank	Variety	Days to Head	Plant Lodge ⁻¹	Plant Lodge ⁻²	Grain Protein	1000 KWT	Test Weight	Grain Yield	Scab Incidence	Scab Severity	Plot Severity
			0-9	0-9	%	gms	lbs/bu	bu/ac	%	%	%
1	Faller	62.3	2.5	2.5	14.3	44.3	61.3	110.9	3.0	7.5	0.2
2	Croplan HRS 3419	65.3	0.3	0.3	13.5	35.7	60.4	110.2	0.5	3.0	0.0
3	LCS Albany	63.3	4.5	3.0	13.6	35.6	61.1	106.5	4.5	3.3	0.2
4	MS Stingray	65.0	0.5	0.3	12.2	39.0	59.9	105.4	2.0	3.3	0.1
5	Prosper	61.7	4.0	3.3	14.2	44.1	61.0	105.2	1.0	2.0	0.0
6	WB9507	57.8	3.8	2.5	14.8	42.3	59.0	104.8	8.0	7.8	0.6
7	MS Chevelle	58.3	4.0	3.3	13.2	34.4	59.7	102.6	26.3	14.6	4.0
8	Croplan HRS 3361	59.3	2.0	0.8	14.3	36.3	60.9	100.0	8.5	6.3	0.5
9	Jenna	64.0	2.5	2.8	14.6	43.3	59.7	100.0	3.0	3.8	0.1
10	Rollag	59.0	0.8	1.0	15.2	39.5	61.7	97.5	23.5	9.0	2.2
11	Mott	62.3	1.3	0.8	15.1	35.5	61.0	97.2	3.0	7.5	0.3
12	LCS Powerplay	58.8	4.3	3.3	14.2	37.8	61.3	96.6	18.8	7.2	1.3
13	Norden	59.3	1.0	0.5	13.9	35.2	61.8	96.3	25.5	8.6	2.3
14	WB-Digger	61.3	3.8	3.3	15.1	41.3	60.5	94.8	14.3	19.3	2.7
15	Select	55.7	3.3	2.0	14.7	38.3	61.3	94.8	31.7	11.9	3.6
16	LCS Iguacu	62.0	0.3	0.3	12.5	39.2	60.8	94.5	4.5	2.8	0.2
17	ND 899	56.5	2.5	1.0	14.7	34.5	60.2	94.5	25.0	13.6	3.6
18	Howard	59.0	4.3	1.5	14.6	38.6	61.6	94.2	34.0	13.8	5.1
19	Prevail	61.0	1.3	1.0	14.1	38.3	60.1	93.4	15.8	7.5	1.3
20	Elgin-ND	59.5	3.8	2.0	14.8	35.5	60.4	93.2	18.5	10.5	1.7
21	SY Rowyn	57.8	3.5	4.3	13.9	33.7	60.2	93.1	11.3	8.4	1.0
22	Forefront	55.5	2.8	2.5	14.7	35.8	60.4	92.9	12.0	7.5	0.9
23	Linkert	59.5	0.5	0.3	14.8	39.8	60.6	92.3	40.3	14.5	5.7
24	Vantage	63.5	0.3	0.0	16.6	36.3	62.4	92.3	1.5	1.5	0.0
25	RB07	61.0	2.3	2.3	14.8	35.3	60.4	92.2	8.5	8.2	0.7
26	Brick	54.3	2.8	1.3	14.3	37.4	60.8	92.1	24.0	8.9	3.0
27	Focus	55.0	2.7	2.3	14.6	36.2	61.1	91.5	23.3	8.1	1.9
28	SY Ingmar	59.3	2.5	1.3	14.8	33.0	60.8	90.9	17.0	10.0	1.8
29	Velva	60.5	3.8	2.8	14.8	38.7	58.9	90.2	26.8	13.0	3.5
30	Freyr	58.0	4.5	2.5	14.7	35.8	60.0	90.0	32.0	13.3	4.4
31	SY Soren	57.8	3.5	2.8	14.7	33.2	60.9	89.9	32.5	10.5	3.4
32	Steele-ND	58.5	4.8	2.0	14.6	38.2	60.7	89.8	32.5	15.8	4.8
33	LCS Breakaway	57.8	4.3	1.8	15.0	35.2	61.2	89.3	36.3	15.5	5.6
34	Advance	59.5	5.5	4.3	14.0	38.8	61.0	88.9	15.0	12.3	2.0
35	Glenn	55.8	2.5	1.3	15.3	37.0	62.8	87.6	21.5	10.1	2.3
36	Barlow	55.8	5.3	2.8	14.6	36.0	60.9	87.4	44.0	15.4	6.8
37	Alpine	59.0	5.0	3.8	14.9	38.8	57.9	85.8	16.5	13.7	2.2
38	Breaker	59.8	2.5	2.0	14.4	38.3	60.9	85.8	9.5	13.9	1.5
39	Croplan HRS 3378	60.5	2.3	1.5	13.5	32.6	60.7	85.6	23.3	12.1	3.0
40	Alsen	58.3	2.0	1.3	15.0	35.4	60.5	85.4	21.0	7.1	1.5
41	SY Tyra	59.8	2.3	1.0	13.7	33.9	59.6	85.0	32.3	12.4	4.0
42	Kelby	57.5	4.3	2.8	14.4	33.3	60.2	83.6	45.8	18.5	8.7
43	ND 901CL Plus	58.5	0.3	0.8	16.6	37.2	60.4	83.3	5.8	3.8	0.3
44	Brennan	57.5	4.5	3.3	14.4	34.0	60.3	83.3	56.5	14.9	8.2
45	Briggs	56.0	4.0	2.5	15.2	38.2	59.7	81.6	20.8	10.0	2.0
46	WB-Mayville	56.0	0.5	0.3	14.8	39.1	58.4	77.9	64.8	47.3	30.9
47	Duclair	59.3	5.5	2.8	14.3	35.7	58.7	75.5	32.8	22.4	6.5
48	Samson	59.8	0.3	0.5	13.6	36.3	56.9	72.6	42.8	24.3	11.2
	MEAN	59.4	3.0	2.0	14.6	37.6	60.5	91.7	19.3	10.5	2.8
	C.V.%	1.4	26.6	33.4	1.6	2.7	0.8	5.6	42.2	42.0	68.5
	LSD.10	0.8	0.9	0.8	0.28	1.2	0.6	6.0	7.4	4.0	1.8
	LSD.05	1.2	1.1	0.9	0.33	1.4	0.7	7.1	11.3	6.1	2.7
	LSD.01	1.5	1.5	1.2	0.44	1.9	0.9	9.4	14.8	8.0	3.6

Carrington 2014 HRSW Variety Trial Dryland

Rank	Variety	Days to Head	Plant Height inch	Plant Lodge 0 to 9	Grain Protein %	1000 KWT gms	Test Weight lbs/bu	Grain Yield bu/ac
1	MS Stingray	55.5	37.0	3.3	12.1	33.9	57.8	85.8
2	Faller	53.5	36.3	2.8	13.8	38.9	60.3	85.4
3	Samson	52.5	32.6	2.5	14.0	33.7	59.6	82.8
4	Croplan HRS 3419	56.5	35.0	1.3	12.6	31.1	58.8	76.8
5	Prosper	53.0	35.2	2.0	12.8	39.4	60.2	74.3
6	LCS Powerplay	52.5	32.0	2.5	13.1	36.0	60.6	72.5
7	WB-Digger	54.0	36.4	3.8	15.0	36.6	59.0	71.6
8	SY Rowyn	49.0	32.6	4.3	13.9	30.2	60.1	70.2
9	Croplan HRS 3361	53.3	35.0	2.3	14.3	35.5	59.6	70.0
10	ND 901CL Plus	51.5	38.9	1.3	15.8	33.5	59.6	69.7
11	WB9507	49.8	35.1	1.8	13.6	42.2	58.9	69.5
12	Brick	46.8	34.4	3.3	14.1	35.6	61.2	69.1
13	Prevail (SD 4178)	49.8	34.6	1.8	13.5	37.0	59.7	68.7
14	ND 821	48.8	35.6	3.0	14.4	37.6	61.1	68.4
15	Focus	47.0	38.1	2.0	13.8	35.5	61.1	68.3
16	Jenna	54.8	33.5	4.3	14.7	36.8	58.6	68.3
17	WB-Mayville	48.8	30.9	2.5	14.7	38.2	59.9	68.3
18	Glenn	49.5	38.0	2.5	14.8	34.1	62.3	68.2
19	LCS Iguaçu	55.0	34.8	3.5	12.0	32.2	59.8	67.5
20	Steele-ND	49.8	35.0	3.0	14.6	35.7	61.3	67.4
21	AP 605CL	51.5	36.0	2.5	13.7	31.3	60.1	67.4
22	Elgin-ND (ND 818)	51.3	36.7	3.8	14.7	30.8	59.3	67.1
23	MS Chevelle	49.5	31.0	3.3	13.1	32.3	59.8	67.1
24	ND 899	48.3	36.1	2.5	14.0	32.0	60.2	67.0
25	SY Tyra	52.5	30.5	3.0	13.7	33.6	60.5	65.8
26	Norden	52.0	32.3	2.3	14.3	32.1	61.2	65.4
27	SY Soren	50.5	30.6	2.3	14.4	31.4	60.6	65.3
28	Advance	53.5	33.7	3.8	13.4	32.8	59.4	65.0
29	RB07	52.5	32.4	3.3	14.2	31.6	58.9	64.6
30	MN08165-8	54.3	35.0	4.3	17.1	33.4	58.1	64.6
31	Select	47.0	34.2	2.3	13.7	36.2	61.5	64.6
32	Duclair	50.0	32.5	2.3	13.6	36.8	59.8	63.9
33	Croplan HRS 3378	53.5	33.2	2.8	13.5	30.2	59.8	63.8
34	Briggs	48.3	33.0	3.0	14.3	37.5	60.2	63.7
35	Barlow	48.3	35.9	4.0	15.4	32.5	60.0	63.5
36	Alpine	52.0	34.2	2.8	13.4	33.5	58.6	62.6
37	LCS Breakaway	50.0	30.6	1.5	14.1	35.2	61.8	62.6
38	Brennan	51.8	29.6	2.3	14.6	32.9	59.8	62.5
39	Linkert	52.5	30.1	1.3	15.3	38.5	59.2	62.3
40	Vantage	53.8	32.6	1.8	14.6	32.4	61.9	61.8
41	Forefront	47.5	38.6	2.3	14.2	34.6	59.9	61.7
42	Velva	53.5	34.2	2.5	13.7	35.2	58.7	61.3
43	LCS Albany	57.5	30.2	3.8	13.0	29.2	58.9	61.3
44	Howard	49.3	33.3	2.3	13.7	37.8	61.1	59.8
45	Rollag	50.5	29.5	0.8	14.1	37.6	60.9	59.5
46	Alsen	49.5	34.3	2.3	14.5	35.0	60.6	59.2
47	Freyr	50.5	34.5	2.8	13.9	32.5	59.4	58.3
48	Breaker	53.3	33.2	3.3	13.9	35.1	60.8	58.3
49	Kelby	50.3	32.0	2.8	15.2	31.3	59.4	58.1
50	SY Ingmar	50.8	29.4	2.0	13.5	33.5	61.2	55.4
	MEAN	51.3	34.1	2.7	14.1	34.6	60.1	65.9
	C.V.%	2.7	6.3	56.1	7.4	6.3	1.2	14.9
	LSD.10	1.6	2.5	NS	1.2	2.5	0.8	11.4

LSD.05	1.9	3.0	NS	1.5	3.0	1.0	13.6
LSD.01	2.5	3.9	NS	1.9	4.0	1.3	17.8
#REPS	4	4	4	4	4	4	4

Hettinger 2014 HRSW Variety Trial

Rank	Variety	Days to	Plant	Plant	Test	Grain	----- Grain Yield -----			Average Yield	
		Head	Height	Lodge	Weight	Protein	2012	2013	2014	2 yr	3 yr
		*	inches	0-9**	lbs/bu	%	----- Bushels per acre -----				
1	Croplan HRS 3419	75	35	0	60.2	11.8	--	--	97.9	--	--
2	MS-Stingray	75	38	0	58.7	10.5	--	70.9	95.9	83.4	--
3	LCS Albany	73	37	1	59.1	12.2	--	75.7	95.4	85.6	--
4	LNR10125	73	34	2	58.9	11.3	--	--	94.4	--	--
5	Faller	74	38	1	61.1	11.9	68.8	54.4	94.1	74.3	72.4
6	WB-9507	71	37	2	58.7	12.2	--	--	92.8	--	--
7	WB-Digger	73	38	1	59.9	12.7	83.5	75.8	92.5	84.2	83.9
8	MS-Chevelle	71	34	2	60.2	10.7	--	--	91.3	--	--
9	Samson	72	33	0	59.2	11.8	79.2	70.4	90.1	80.3	79.9
10	Croplan 14-98	71	36	0	60.2	13.3	--	--	90.1	--	--
11	Croplan HRS 3378	72	35	0	60.9	12.1	--	--	89.6	--	--
12	Advance	72	36	2	61.5	12.7	84.9	67.8	89.0	78.4	80.6
13	Elgin-ND	72	40	0	60.8	13.4	77.0	66.7	88.5	77.6	77.4
14	LCS Iguacu	73	34	0	59.8	11.1	--	69.1	88.2	78.7	--
15	Croplan HRS 3361	73	36	0	60.1	11.7	--	--	88.2	--	--
16	Prevail	71	39	1	61.0	12.2	84.1	66.4	87.2	76.8	79.2
17	Jenna	74	35	1	60.0	13.0	72.0	67.7	86.5	77.1	75.4
18	LCS Breakaway	71	34	0	62.2	13.5	--	69.6	86.4	78.0	--
19	Prosper	76	39	0	60.7	11.7	76.6	63.0	86.3	74.7	75.3
20	SY Soren	72	33	0	61.3	13.4	82.2	72.2	86.2	79.2	80.2
21	SY Tyra	74	31	0	60.4	11.8	82.5	66.0	85.7	75.9	78.1
22	Velva	73	36	0	59.2	13.0	79.1	68.0	85.7	76.9	77.6
23	Forefront	69	41	2	61.2	13.2	75.7	64.9	85.2	75.1	75.3
24	SY-Rowyn	71	35	2	60.3	12.0	83.7	69.5	85.0	77.3	79.4
25	Breaker	74	36	0	61.5	13.2	76.2	69.0	84.5	76.8	76.6
26	Rollag	72	34	1	61.6	13.7	80.4	63.9	84.2	74.1	76.2
27	RB07	71	35	1	60.1	13.3	79.5	62.7	84.1	73.4	75.4
28	Focus	69	42	1	61.6	12.9	--	--	83.6	--	--
29	Norden	72	34	0	62.3	12.5	76.5	65.8	83.5	74.7	75.3
30	WB-9879CLP+	72	34	1	59.5	12.3	--	--	83.4	--	--
31	SY 605CL	71	38	0	62.0	14.1	80.3	71.8	83.1	77.5	78.4
32	LCS Powerplay	73	35	2	60.8	12.4	--	69.8	82.9	76.4	--
33	Select	68	39	1	62.7	12.7	73.1	66.0	82.6	74.3	73.9
34	SY Ingmar	72	33	0	61.3	13.2	--	--	82.1	--	--
35	Sabin	73	38	3	60.3	13.8	82.7	65.4	81.2	73.3	76.4
36	Steele-ND	73	39	2	61.3	13.6	72.2	67.3	80.9	74.1	73.5
37	Linkert	74	34	0	60.8	14.2	80.4	61.0	80.5	70.8	74.0
38	Brennan	72	34	0	60.0	12.5	79.9	69.8	80.4	75.1	76.7
39	Howard	73	38	1	61.5	12.9	73.0	69.9	80.3	75.1	74.4
40	Barlow	71	39	0	60.9	13.8	71.5	68.2	80.1	74.2	73.3
41	WB-Mayville	71	33	0	59.6	13.2	76.6	62.6	79.7	71.2	73.0
42	Mott	75	39	0	60.8	12.9	73.2	65.0	78.9	72.0	72.4
43	Glenn	72	39	0	62.4	14.5	71.4	60.2	77.1	68.7	69.6
44	Vantage	77	35	0	61.1	14.9	67.6	60.0	75.4	67.7	67.7
45	ND 901 CL Plus	73	40	0	60.0	14.9	69.0	55.7	73.5	64.6	66.1
46	WB-Gunnison	71	35	3	60.0	12.6	70.3	51.8	73.4	62.6	65.2
	Trial Mean	72	37	1	60.7	12.8	42.1	75.9	84.8	--	--
	C.V. %	1.4	3.4	105.4	0.7	3.7	6.6	4.6	5.2	--	--
	LSD 10%	1	1	1	0.5	0.5	3.5	4.1	5.2	--	--

Dickinson 2014 HRSW Variety Trial

Rank	Variety	Head	Height in	Necrosis %	Weight lbs/bu	Protein %	2012	2013	2014	year	
										year	year
1	Faller	53.7	35.5	12.9	62.2	12.3	85.1	111.8	95.5	103.6	97.5
2	LCS Albany	55.0	34.8	8.9	61.9	11.7	78.6	105.2	95.2	100.2	93.0
3	MS Stingray	55.7	36.4	3.4	60.1	10.7	--	117.8	93.4	105.6	--
4	Prosper	53.4	35.9	6.1	62.4	12.4	83.7	109.7	92.9	101.3	95.4
5	Velva	55.0	36.1	6.4	61.2	12.5	72.2	99.0	92.6	95.8	87.9
6	Alpine	53.9	35.5	8.1	61.1	12.9	79.1	99.0	91.5	95.2	89.9
7	MS-Chevelle	51.0	32.7	14.3	62.1	12.5	--	--	91.2	--	--
8	LCS Nitro	56.0	34.3	8.3	61.5	11.8	--	--	91.0	--	--
9	LCS Iguacu	54.8	35.3	13.1	62.0	11.6	--	--	90.6	--	--
10	WB Digger	54.5	35.3	13.5	61.9	12.8	79.6	98.5	90.3	94.4	89.5
11	Elgin-ND	52.9	38.5	6.3	62.3	13.7	76.4	99.3	90.1	94.7	88.6
12	RB07	52.0	34.6	12.1	62.1	13.8	73.6	96.4	88.3	92.4	86.1
13	LCS Powerplay	52.6	34.0	10.3	62.4	13.4	75.4	100.7	88.1	94.4	88.1
14	SY Rowyn	53.3	32.6	17.9	62.2	12.9	78.7	94.7	87.0	90.9	86.8
15	Jenna	55.3	34.2	12.3	61.4	12.7	74.2	94.9	87.0	90.9	85.4
16	SY Ingmar	53.5	31.7	9.6	62.9	13.7	--	--	86.8	--	--
17	WB9507	51.8	34.4	13.9	60.4	13.1	--	--	86.8	--	--
18	Samson	53.6	32.1	16.4	60.9	12.5	71.5	91.5	86.3	88.9	83.1
19	Barlow	52.5	37.1	5.8	62.9	13.9	72.0	93.7	85.5	89.6	83.7
20	SY Soren	53.0	31.0	12.8	63.2	13.4	71.2	86.1	85.1	85.6	80.8
21	Rollag	52.8	32.5	13.2	63.0	14.1	70.2	83.0	85.1	84.0	79.4
22	Advance	54.5	34.4	4.6	62.6	12.6	81.0	96.5	84.9	90.7	87.5
23	Prevail	54.0	36.2	15.8	61.9	13.3	74.1	88.5	84.8	86.6	82.5
24	Cardale	52.0	35.8	14.7	61.4	13.8	--	--	83.7	--	--
25	Breaker	54.5	35.4	5.5	62.7	13.0	75.2	98.5	83.1	90.8	85.6
26	Linkert	54.0	29.5	4.4	62.2	13.6	69.9	81.4	81.7	81.5	77.7
27	Vantage	56.0	33.8	8.5	63.5	14.4	66.6	85.9	81.4	83.7	78.0
28	WB Mayville	51.0	32.8	35.1	61.4	13.6	70.2	86.0	81.4	83.7	79.2
29	Norden	51.5	32.7	16.1	63.2	13.2	72.6	89.7	80.5	85.1	80.9
30	Brennan	54.0	31.6	12.6	62.5	13.8	69.6	75.3	80.0	77.7	75.0
31	Brick	49.3	37.0	14.8	62.6	13.4	75.8	81.3	77.8	79.5	78.3
32	Select	51.3	35.9	15.9	62.6	13.7	78.2	84.0	77.3	80.6	79.8
33	LCS Breakaway	52.8	32.6	27.4	62.9	13.7	75.7	88.0	77.1	82.6	80.3
34	Glenn	52.3	37.2	5.8	64.0	14.4	68.3	90.9	75.8	83.3	78.3
35	Forefront	52.0	38.8	6.7	62.1	13.8	77.5	88.7	74.3	81.5	80.2
36	Focus	49.5	35.7	12.0	62.3	13.9	--	--	73.0	--	--
	Trial Mean	53.3	35.1	12.6	62.1	13.3	75.2	94.6	84.4	--	--
	C.V. %	1.8	4.0	57.1	0.7	4.2	3.8	4.3	5.6	--	--
	LSD 10%	1.1	1.6	12.1	0.5	0.7	3.3	4.8	5.5	--	--
	LSD 5%	1.3	1.9	14.5	0.7	0.8	4.0	5.7	6.6	--	--

North Central (Minot) 2014 HRSW Variety Trial											
Rank	Variety	Days to Head	Plant Height	Lodging	Test Weight	Protein	Grain Yield				
							2012	2013	2014	2	3
		inches	0-9 ²	lbs/bu	%	bu/A					
1	LCS Albany	57	36	2	62.6	12.1	46.9	62.8	77.1	69.9	62.3
2	Faller	55	39	1	62.7	12.7	47.4	63.4	76.4	69.9	62.4
3	MS Stingray	59	39	1	62.3	10.9	--	61.7	75.1	68.4	--
4	Prosper	54	39	1	63.1	13.1	44.2	66.2	74.7	70.5	61.7
5	SY Rowyn	53	35	0	60.6	12.9	--	47.2	74.6	60.9	--
6	Prevail	51	38	0	61.1	13.8	52.4	47.3	74.1	60.7	57.9
8	Howard	53	41	1	61.8	14.4	51.1	54.0	72.0	63.0	59.1
10	Steele-ND	52	40	1	61.4	14.2	50.0	54.8	69.3	62.1	58.0
12	WB Digger	54	39	1	61.8	13.5	34.5	66.6	68.8	67.7	56.6
16	SY Ingmar	54	35	0	62.4	14.1	--	--	68.1	--	--
18	Jenna	56	35	0	61.9	14.3	36.2	53.0	67.5	60.3	52.2
20	Advance	54	38	1	62.4	12.4	55.5	59.1	67.1	63.1	60.5

21	Duclair	51	37	0	59.0	14.0	39.9	56.1	66.6	61.3	54.2
22	WB Mayville	51	31	0	61.1	14.1	42.8	49.2	66.6	57.9	52.9
23	Velva	54	40	0	59.6	13.8	50.6	54.5	66.2	60.4	57.1
25	WB Sampson	54	32	0	59.4	13.0	40.7	55.3	65.0	60.2	53.7
26	MS Chevelle	51	35	0	59.7	12.7	--	--	65.0	--	--
27	LCS Powerplay	52	36	1	61.4	13.9	52.6	58.3	65.0	61.6	58.6
29	WB Breaker	53	36	0	64.4	13.5	52.1	49.9	64.5	57.2	55.5
32	Rollag	53	35	0	61.5	14.0	51.0	54.1	63.2	58.6	56.1
33	LCS Breakaway	52	34	0	63.7	14.5	51.3	53.0	63.1	58.0	55.8
34	SY Soren	53	34	0	61.7	13.6	36.4	53.1	62.3	57.7	50.6
35	Elgin-ND	54	40	0	60.8	13.9	38.2	58.3	62.3	60.3	52.9
36	Barlow	50	38	0	61.1	14.4	50.8	54.5	62.2	58.3	55.8
38	Linkert	53	32	0	59.7	14.3	--	49.3	61.1	55.2	--
39	RB07	53	37	0	59.9	13.4	46.4	51.4	61.1	56.3	53.0
40	Fryer	52	38	0	60.0	13.8	45.6	51.1	60.9	56.0	52.5
41	Focus	49	40	0	63.1	14.2	--	--	60.7	--	--
42	Mott	54	40	0	61.1	13.6	47.4	56.6	60.6	58.6	54.9
43	SY605CL	51	39	0	59.0	13.3	37.8	55.6	60.4	58.0	51.3
44	WB Gunnison	54	34	0	62.5	13.0	37.6	45.7	60.2	52.9	47.8
45	LCS Iguazu	56	36	0	61.2	12.0	--	55.6	60.0	57.8	--
46	ND901CL Plus	52	40	0	60.4	14.6	43.1	52.8	59.9	56.4	51.9
51	Glenn	51	40	0	61.2	14.6	46.3	48.6	57.5	53.1	50.8
55	SY Tyra	53	32	0	60.6	13.2	47.4	56.9	56.7	56.8	53.7
57	Briggs	51	36	1	60.0	14.4	27.0	53.3	56.4	54.8	45.6
58	WB Vantage	56	35	0	63.3	14.4	44.9	51.5	56.3	53.9	50.9
59	Forefront	50	41	0	60.6	13.5	43.4	48.3	55.8	52.0	49.2
60	Alpine	54	38	0	60.0	12.8	36.4	51.2	55.7	53.5	47.8
61	Kelby	51	36	0	60.4	13.7	48.7	40.3	54.9	47.6	47.9
63	Norden	53	35	0	63.7	13.4	57.8	53.6	54.3	53.9	55.2
64	Brennan	53	33	0	59.7	14.7	48.1	45.4	54.1	49.7	49.2
65	Select	49	39	0	59.9	13.3	58.7	59.9	53.4	56.7	57.3
66	Choteau	53	37	1	57.2	13.6	46.5	44.3	52.6	48.5	47.8
	Mean	53	38	0	61.2	13.5	46.9	54.5	62.9	--	--
	C.V.%	2.3	3.9	179	1.7	6.8	8.2	6.4	11.3	--	--
	LSD 10%	1	2	1	1.2	1.1	4.5	4.1	8.3	--	--

Focus (SD4362) South Dakota Data

Table 1. Yield comparisons among entries tested over years in Advanced Yield Trial and Crop Performance Testing trials.

2012-2014 AYT 24 environments		2012-2014 CPT		2013-2014 AYT 16 environments		2013-2014 CPT 12 environments	
ENTRY	BU/AC	ENTRY	BU/AC	ENTRY	BU/AC	ENTRY	BU/AC
PREVAIL	50.84	SEE TABLE 10		FALLER	55.43	MS STINGRAY	74.20
FALLER	50.57			PREVAIL	53.70	PROSPER	71.91
FOREFRONT	50.57			SD4299	52.55	FALLER	71.48
TRAVERSE	50.39			SD4383	52.35	LCS ALBANY	68.91
SD4383	49.71			TRAVERSE	52.02	TRAVERSE	67.65
ADVANCE	49.71			SD4477	51.95	PREVAIL	66.41
SELECT	49.48			FOREFRONT	51.93	SY ROWYN	65.56
SD4362	49.27			SD4465	51.89	ADVANCE	65.54
SD4299	48.32			SD4393	51.67	SD4299	65.11
SD4393	47.89			SD4362	51.15	ND817	64.68
BRICK	47.81			SD4471	51.08	BREAKER	64.56
SD4403	47.02			ADVANCE	50.95	MOTT	64.26
SD4400	47.00			SD4451	50.68	SD4362	64.1
BRIGGS	46.53			SD4450	50.30	SABIN	64.00
SD4330	46.07			SD4403	50.10	FOREFRONT	63.86
GRANGER	46.02			SELECT	49.99	LCS POWERPLA'	62.37
OXEN	45.96			SD4416	49.85	BRICK	62.31
KNUDSON	45.94			SD4472	49.71	MN08165-8	62.29
STEELE-ND	45.36			BRICK	49.59	ELGIN	61.86
SD4321	45.16			SD4400	48.98	LCS BREAKAWA	61.72
				SD4330	48.69	RB07	61.62
				SD4469	48.60	SELECT	61.15
				GRANGER	47.91	ROLLAG	61.02
				KNUDSON	47.34	WB-MAYVILLE	60.43
				SD4321	47.21	NORDEN	60.41
				STEELE-ND	47.12	VELVA	60.12
				SD4470	46.63	BARLOW	59.87
				BRIGGS	46.59	BRIGGS	59.57
				OXEN	45.59	ND819	59.51
						LINKERT	59.20
						SAMSON	58.26
						SD4321	56.49
						WB9879CLP	53.45
						CHRIS	43.17
MEAN	47.98	-	-	50.05			62.56
lsd (0.05)	1.23	-	-	1.38			1.55
cv (%)	4.06	-	-	4.65			8.79
std dev	1.95	-	-	2.33			5.50

NOTES:

Entries above the "____" are those in the best LSD grouping (I.e., "A").

Focus (SD4362) South Dakota Data

Table 2. Test Weight comparisons among entries tested over years in Advanced Yield Trial and Crop Performance Testing trials.

2012-2014 AYT 24 environments		2012-2014 CPT		2013-2014 AYT 16 environments		2013-2014 CPT 12 environments	
ENTRY	LB/BU	ENTRY	LB/BU	ENTRY	LB/BU	ENTRY	LB/BU
SD4330	60.49	SEE TABLE 10		SD4330	61.86	BREAKER	59.21
SD4362	60.44			BRICK	61.39	SD4362	58.88
BRICK	60.26			SD4362	61.30	BRICK	58.84
FOREFRONT	60.01			SD4451	60.87	FOREFRONT	58.56
SELECT	59.71			SD4450	60.84	ND817	58.54
SD4393	59.28			FOREFRONT	60.84	ADVANCE	58.40
ADVANCE	59.25			SD4465	60.63	ROLLAG	58.13
PREVAIL	59.14			SELECT	60.58	NORDEN	58.06
SD4403	58.98			SD4393	60.55	SELECT	58.03
SD4400	58.80			ADVANCE	60.53	LCS BREAKAW	58.00
GRANGER	58.79			SD4403	60.41	SABIN	57.93
BRIGGS	58.56			SD4416	60.39	PREVAIL	57.89
STEELE-ND	58.54			PREVAIL	60.26	FALLER	57.87
SD4321	58.39			STEELE-ND	60.20	MOTT	57.83
KNUDSON	58.29			FALLER	60.10	PROSPER	57.76
SD4383	58.21			SD4472	60.06	SY ROWYN	57.76
SD4299	58.14			GRANGER	60.03	LCS ALBANY	57.74
FALLER	58.05			SD4299	60.01	LCS POWERPL	57.51
TRAVERSE	56.33			SD4471	59.96	BARLOW	57.42
OXEN	56.20			SD4400	59.95	MS STINGRAY	57.36
				SD4477	59.87	MN08165-8	57.31
				SD4469	59.83	SD4299	57.29
				SD4470	59.75	LINKERT	57.28
				SD4321	59.62	RB07	56.99
				KNUDSON	59.58	ELGIN	56.75
				BRIGGS	59.39	ND819	56.69
				SD4383	59.31	BRIGGS	56.66
				OXEN	57.52	SD4321	56.61
				TRAVERSE	57.31	WB-MAYVILLE	56.05
						VELVA	55.13
						TRAVERSE	54.97
						SAMSON	54.77
						CHRIS	54.65
						WB9879CLP	53.30
MEAN	58.79	-		60.10			57.24
lsd (0.05)	0.30	-		0.30			0.56
cv (%)	1.97	-		1.58			2.35
std dev	1.16	-		0.95			1.35

NOTES:

Entries above the "____" are those in the best LSD grouping (i.e., "A").

Focus (SD4362) South Dakota Data

Table 3. Heading date comparisons among entries tested over years in Advanced Yield Trial.

2012-2014 AYT 18 environments		2013-2014 AYT 12 environments	
ENTRY	D > 1 Jun	ENTRY	D > 1 Jun
BRICK	20.02	BRICK	24.58
SELECT	20.50	SD4362	25.00
SD4362	20.67	SELECT	25.53
BRIGGS	22.11	SD4321	26.58
SD4321	22.20	SD4450	26.61
SD4383	22.20	SD4383	26.92
FOREFRONT	22.31	FOREFRONT	27.14
TRAVERSE	22.87	SD4451	27.17
SD4330	23.37	BRIGGS	27.28
SD4393	23.76	SD4470	27.42
OXEN	23.91	SD4472	27.42
GRANGER	23.94	SD4471	27.56
PREVAIL	24.22	SD4469	27.83
STEELE-ND	24.30	SD4465	27.86
ADVANCE	24.56	TRAVERSE	27.86
SD4400	25.20	SD4330	28.08
SD4403	25.43	SD4393	28.39
FALLER	25.56	SD4416	28.67
KNUDSON	25.56	OXEN	29.08
SD4299	27.28	STEELE-ND	29.08
		GRANGER	29.11
		SD4477	29.14
		PREVAIL	29.47
		ADVANCE	29.83
		SD4400	30.28
		SD4403	30.53
		FALLER	30.78
		KNUDSON	30.92
		SD4299	32.11
MEAN	23.50		28.21
lsd (0.05)	0.45		0.51
cv (%)	8.07		6.33
std dev	1.90		1.78

NOTES:

Entries above the "____" are those in the best LSD grouping (I.e., "A").
Heading notes not collected in CPT trials.

Focus (SD4362) South Dakota Data

Table 4. Plant height comparisons among entries tested over years in Advanced Yield Trial and Crop Performance Testing trials.

2012-2014 AYT 18 environments		2012-2014 CPT		2013-2014 AYT 12 environments		2013-2014 CPT 10 environments	
ENTRY	INCHES	ENTRY	LB/BU	ENTRY	INCHES	ENTRY	INCHES
SD4393	31.42	SEE TABLE 10		SD4477	31.80	ROLLAG	29.40
OXEN	31.68			SD4393	31.82	SY ROWYN	29.70
ADVANCE	31.93			OXEN	32.18	SAMSON	29.83
SD4383	32.49			ADVANCE	32.27	WB-MAYVILLE	29.95
PREVAIL	32.51			KNUDSON	32.52	LINKERT	30.08
KNUDSON	32.54			SD4472	32.79	ADVANCE	30.33
SD4299	32.87			SD4383	33.12	LCS BREAKAWA	30.58
BRIGGS	33.20			PREVAIL	33.20	LCS ALBANY	31.00
SD4403	33.55			SD4299	33.45	LCS POWERPLA	31.10
FALLER	33.88			BRIGGS	33.53	NORDEN	31.55
BRICK	33.97			SD4470	33.54	PREVAIL	31.73
STEELE-ND	34.10			SD4465	33.55	RB07	31.95
SELECT	34.20			SD4416	33.60	ND819	32.13
SD4321	34.30			SD4451	33.79	SABIN	32.30
TRAVERSE	34.89			SD4471	34.04	SELECT	32.38
SD4330	34.92			FALLER	34.29	MN08165-8	32.40
SD4362	34.99			SD4450	34.32	BRIGGS	32.58
SD4400	35.56			STEELE-ND	34.34	BREAKER	32.75
GRANGER	35.96			BRICK	34.39	SD4299	32.78
FOREFRONT	36.01			SELECT	34.40	WB9879CLP	32.88
				SD4403	34.45	FALLER	32.95
				SD4321	35.00	BRICK	33.00
				TRAVERSE	35.21	MS STINGRAY	33.00
				SD4469	35.23	PROSPER	33.20
				SD4362	35.61	BARLOW	33.23
				SD4330	35.78	TRAVERSE	33.70
				SD4400	36.15	VELVA	34.15
				GRANGER	36.59	SD4321	34.20
				FOREFRONT	36.60	SD4362	34.70
						ND817	34.83
						FOREFRONT	34.85
						ELGIN	35.73
						MOTT	35.98
						CHRIS	40.40
MEAN	33.75	-			34.05		32.68
lsd (0.05)	0.58	-			0.61		0.61
cv (%)	4.12	-			3.95		6.74
std dev	1.39	-			1.35		2.20

NOTES:

Entries above the "____" are those in the best LSD grouping (i.e., "A").

Focus (SD4362) South Dakota Data

Table 5. Lodging score comparisons among entries tested over years in Crop Performance Testing trials.

2012-2014 CPT		2013-2014 CPT 10 environments	
ENTRY	SCORE	ENTRY	SCORE
SEE TABLE 10		LINKERT	1.10
		WB-MAYVILLE	1.15
		NORDEN	1.35
		MS STINGRAY	1.40
		VELVA	1.43
		LCS BREAKAWAY	1.48
		MN08165-8	1.48
		SAMSON	1.48
		WB9879CLP	1.53
		MOTT	1.55
		PREVAIL	1.65
		BREAKER	1.70
		ELGIN	1.85
		PROSPER	1.85
		ROLLAG	1.85
		FALLER	1.88
		SD4299	1.90
		SD4321	1.90
		BARLOW	1.93
		SELECT	1.98
		TRAVERSE	1.98
		ADVANCE	2.00
		BRICK	2.00
		LCS ALBANY	2.03
		SD4362	2.05
		ND819	2.15
		ND817	2.18
		FOREFRONT	2.20
		SY ROWYN	2.20
		LCS POWERPLAY	2.23
		BRIGGS	2.28
		RB07	2.28
		SABIN	2.28
		CHRIS	3.50
MEAN	-		1.87
lsd (0.05)	-		0.20
cv (%)	-		23.40
std dev	-		0.44

NOTES:

Entries above the "____" are those in the best LSD grouping (i.e., "A").

Lodging notes not collected in AYT's.

Focus (SD4362) South Dakota Data

Table 6. Grain protein comparisons among entries tested over years in Advanced Yield Trial and Crop Performance Testing.

2012-2014 AYT 24 environments		2012-2014 CPT		2013-2014 AYT 16 environments		2013-2014 CPT 12 environments	
ENTRY	%	ENTRY	%	ENTRY	%	ENTRY	%
SD4321	16.35	SEE TABLE 10		SD4321	16.24	SD4321	16.32
SD4330	15.60			SD4330	15.26	MN08165-8	16.17
SD4299	15.46			SD4403	15.11	CHRIS	16.11
SD4403	15.45			BRIGGS	15.06	LINKERT	15.77
SD4393	15.36			SD4393	15.06	ROLLAG	15.75
STEELE-ND	15.30			STEELE-ND	15.06	ND819	15.73
SD4362	15.23			SD4450	15.04	BRIGGS	15.60
BRIGGS	15.20			SD4416	14.99	BARLOW	15.53
SD4400	15.17			SD4470	14.98	WB-MAYVILLE	15.51
GRANGER	15.13			SD4299	14.97	ELGIN	15.43
FOREFRONT	15.04			SD4477	14.95	LCS BREAKAW/	15.42
SD4383	14.98			SD4451	14.92	ND817	15.42
BRICK	14.90			GRANGER	14.88	SD4299	15.33
SELECT	14.78			SD4472	14.88	FOREFRONT	15.33
OXEN	14.66			SD4362	14.86	MOTT	15.31
KNUDSON	14.63			SD4469	14.84	SD4362	15.30
ADVANCE	14.47			FOREFRONT	14.82	RB07	15.28
PREVAIL	14.47			SD4400	14.81	VELVA	15.26
TRAVERSE	14.42			OXEN	14.72	SELECT	15.24
FALLER	14.31			BRICK	14.71	SABIN	15.23
				SD4383	14.69	BRICK	15.22
				SELECT	14.56	SAMSON	15.17
				SD4471	14.50	BREAKER	15.14
				SD4465	14.50	LCS POWERPLA	15.10
				KNUDSON	14.39	WB9879CLP	15.03
				TRAVERSE	14.26	NORDEN	14.96
				ADVANCE	14.16	SY ROWYN	14.88
				PREVAIL	14.13	PREVAIL	14.82
				FALLER	13.90	ADVANCE	14.75
						FALLER	14.75
						PROSPER	14.74
						TRAVERSE	14.70
						LCS ALBANY	14.23
						MS STINGRAY	13.72
MEAN	15.05	-		14.80			15.24
lsd (0.05)	0.18	-		0.16			0.20
cv (%)	3.27	-		2.91			3.38
std dev	0.49	-		0.43			0.52

NOTES:

Entries above the "____" are those in the best LSD grouping (i.e., "A").

Focus (SD4362) South Dakota Data

Table 7. FHB resistance comparisons among entries tested in Advanced Yield Trial and Crop Performance Testing Trials at the Brookings and Volga South Dakota disease nurseries.

2012-2014 AYT 6 environments			2013-2014 AYT 4 environments			2013-2014 CPT 4 environments		
ENTRY	DIS	FDK	ENTRY	DIS	FDK	ENTRY	DIS	FDK
BRICK	18.0	10.8	SD4469	20.2	20.2	FOREFRONT	24.0	30.0
SD4362	16.2	10.8	SD4470	17.9	22.3	MS STINGRAY	26.3	32.5
SD4383	19.3	11.3	SD4362	15.1	23.3	SD4321	19.4	35.0
SD4330	19.7	11.5	BRICK	14.1	24.0	ND817	24.8	36.7
SD4403	21.2	12.1	SD4403	18.4	24.2	NORDEN	25.4	36.7
FOREFRONT	15.6	13.5	SD4321	15.3	26.4	SD4362	20.3	36.7
SD4321	17.5	14.2	SD4330	14.5	26.8	ELGIN	31.7	37.5
STEELE-ND	20.5	14.2	SD4383	15.0	27.9	SELECT	27.8	37.5
SD4393	19.0	14.8	SD4471	17.0	28.1	BREAKER	22.7	38.3
PREVAIL	19.2	15.3	SD4416	16.3	28.8	FALLER	30.7	38.3
FALLER	20.5	15.7	FOREFRONT	12.9	29.2	SY ROWYN	21.5	38.3
SD4299	19.8	15.9	SD4299	17.0	30.4	BRICK	21.6	40.0
KNUDSON	26.3	17.7	PREVAIL	17.0	30.8	LCS ALBANY	29.7	40.0
SD4400	21.6	18.6	FALLER	20.3	31.4	ND819	30.3	40.0
SELECT	21.8	19.8	SD4393	15.7	32.1	BARLOW	27.2	40.8
BRIGGS	20.4	20.1	SD4400	18.5	32.5	BRIGGS	32.3	40.8
ADVANCE	22.7	20.3	STEELE-ND	17.9	32.9	LCS BREAKAWA	30.7	40.8
TRAVERSE	24.2	21.4	ADVANCE	20.1	34.6	ROLLAG	25.5	40.8
OXEN	27.1	24.5	SD4450	15.2	35.0	SABIN	19.7	40.8
GRANGER	21.0	26.4	SD4472	13.0	36.3	PREVAIL	26.0	42.5
			SD4477	19.1	37.1	PROSPER	27.2	42.5
			KNUDSON	25.4	37.9	LCS POWERPLA'	27.8	43.3
			SD4465	21.7	38.3	SD4299	27.3	43.3
			TRAVERSE	21.6	38.8	VELVA	33.5	43.3
			BRIGGS	19.5	40.4	ADVANCE	26.6	45.0
			SELECT	23.3	41.0	LINKERT	28.4	45.0
			SD4451	18.6	42.5	MOTT	27.7	45.0
			OXEN	23.3	45.8	WB-MAYVILLE	39.4	45.8
			GRANGER	20.6	48.3	RB07	34.8	46.7
						MN08165-8	31.0	50.0
						WB9879CLP	42.6	50.8
						SAMSON	40.1	53.3
						CHRIS	33.1	54.2
						TRAVERSE	27.2	56.7
MEAN	20.6	16.4		18.1	32.7		28.4	42.0
lsd (0.05)	4.6	5.3		4.6	8.9		4.9	10.3
cv %	14.3	27.6		17.7	21.9		19.6	14.2
std dev	2.9	4.5		3.2	7.2		5.5	6.0

NOTES:

Entries above the "___" are those in the best LSD grouping (I.e., "A").

Table 8. Loaf volume comparisons among entries tested over years in Advanced Yield Trial.

2011-2013 AYT		2012-2013 AYT		2013 AYT	
15 environments		10 environments		5 environments	
ENTRY	ml	ENTRY	ml	ENTRY	ml
SD4321	199.5	SD4321	186.3	STEELE-ND	189.8
FOREFRONT	195.9	FOREFRONT	185.4	SD4321	187.6
SD4299	193.3	STEELE-ND	184.0	FALLER	186.6
STEELE-ND	191.2	SD4299	183.4	FOREFRONT	185.2
SD4330	188.6	SD4352	182.3	SD4427	185.0
SD4215	186.9	SD4393	181.7	OXEN	184.8
FALLER	186.7	SD4215	181.3	SD4479	184.4
GRANGER	186.1	SD4403	180.9	SD4451	183.8
ADVANCE	186.1	SD4389	180.5	SD4299	182.6
SD4189	184.5	FALLER	179.7	SD4352	182.6
OXEN	183.7	SD4330	177.3	SD4393	182.2
BRIGGS	183.2	OXEN	177.2	SD4469	180.6
SELECT	181.9	GRANGER	176.3	SD4403	180.2
BRICK	181.2	SD4398	176.1	SD4474	180.2
PREVAIL	178.5	BRICK	174.4	SD4389	179.4
TRAVERSE	178.2	ADVANCE	174.3	GRANGER	178.8
KNUDSON	177.3	SD4189	174.3	SD4398	178.4
SD4218	175.9	SD4383	174.1	SD4434	178.4
SD4313	175.4	BRIGGS	173.5	KNUDSON	178.2
		SD4366	173.2	SD4215	178.0
		SD4400	172.0	SD4450	178.0
		SELECT	172.0	SD4416	177.8
		KNUDSON	171.5	SD4366	177.6
		SD4362	170.4	SELECT	177.2
		SD4218	170.0	SD4218	176.6
		TRAVERSE	169.0	SD4470	176.6
		PREVAIL	168.9	ADVANCE	174.6
		SD4313	168.0	SD4465	174.6
				BRIGGS	174.4
				SD4383	174.2
				SD4330	174.0
				TRAVERSE	173.6
				BRICK	173.0
				SD4471	172.6
				SD4362	172.4
				SD4439	172.0
				SD4441	171.4
				SD4436	171.2
				SD4313	171.0
				SD4418	170.0
				SD4432	170.0
				SD4400	169.0
				SD4454	168.8
				SD4189	168.6

			SD4460	168.6
			PREVAIL	167.6
			SD4472	165.8
			SD4477	161.4
MEAN	185.0	176.4		176.4
lsd (0.05)	7.1	9.3		13.1
cv (%)	3.6	3.0		3.6
std dev	6.7	5.4		6.3

NOTES:

Entries above the "___" are those in the best LSD grouping (I.e., "A").

Table 9. Comparisons among 2014 AYT entries tested for various characteristics in South Dakota.

GRAIN YIELD		TEST WEIGHT		HEADING DATE		PLANT HEIGHT		GRAIN PROTEIN		FHB DISEASE INDEX		FHB FDK SCORE		BLS RESISTANCE	
8 environments		8 environments		8 environments		8 environments		8 environments		2 environments		2 environments		1 environment	
ENTRY	BU/AC	ENTRY	LB/BU	ENTRY	D > 1 Jun	ENTRY	INCHES	ENTRY	%	ENTRY	DIS	ENTRY	%	ENTRY	AUDPC
PREVAIL	61.21	SD4511	61.38	BRICK	23.06	OXEN	31.99	SD4321	16.27	SD4511	15.56	SD4470	22.83	SD4492	249.2
FALLER	60.30	SD4546	61.17	SD4362	23.33	KNUDSON	32.18	SD4548	16.10	SD4383	15.59	SD4511	23.67	SD4330	286.6
SD4383	59.10	SD4330	60.98	SD4546	23.94	SD4493	32.23	SD4501	16.04	FOREFRONT	15.92	SD4469	25.33	SD4493	286.6
FOREFRONT	59.01	BRICK	60.85	SD4492	24.44	SD4477	32.25	SD4515	15.48	BRICK	16.36	SD4496	27.00	SD4529	308.2
SD4537	58.13	SD4537	60.70	SELECT	24.61	SD4393	32.60	SD4330	15.30	SD4472	16.51	SD4321	27.83	SD4477	309.7
SD4362	58.13	SD4548	60.66	SD4383	24.83	SD4472	33.19	SD4529	15.30	SD4362	17.99	BRICK	28.00	SD4393	319.8
TRAVERSE	57.99	SD4514	60.65	SD4450	25.22	ADVANCE	33.41	SD4496	15.24	SD4321	18.17	SD4362	28.33	SD4403	322.6
SD4524	57.87	SD4362	60.64	SD4321	25.56	SD4517	33.43	SD4517	15.23	SD4393	18.61	SD4403	28.33	SD4362	332.7
SD4393	57.84	FOREFRONT	60.30	SD4496	25.72	SD4299	33.71	SD4506	15.18	SD4450	18.69	SD4514	29.50	SD4472	334.2
SD4471	57.70	SD4543	60.21	SD4470	25.78	SD4383	33.71	SD4403	15.14	SD4330	18.70	SD4543	30.00	SD4532	337.0
SD4299	57.67	SD4492	60.19	SD4451	25.89	SD4515	33.84	SD4518	15.13	SD4299	19.09	SD4520	30.33	SD4299	352.9
SD4465	57.63	SD4532	60.10	FOREFRONT	26.00	PREVAIL	34.10	SD4514	15.12	SD4501	19.09	SD4416	30.83	SD4383	355.8
SD4477	57.59	SD4450	60.10	SD4471	26.22	SD4451	34.10	BRIGGS	15.10	SD4514	19.13	ADVANCE	32.50	SD4543	358.6
BRICK	56.84	SELECT	60.08	SD4472	26.28	SD4416	34.17	SD4546	15.10	SD4471	19.50	FOREFRONT	33.33	SD4451	360.1
SD4451	56.69	SD4506	60.02	BRIGGS	26.56	SD4524	34.17	SD4416	15.09	SD4493	20.12	SD4400	33.33	SD4506	368.7
SD4546	56.65	SD4520	59.98	SD4501	26.61	SD4465	34.26	SD4477	15.08	SD4451	20.25	SD4299	34.17	SD4469	378.8
SD4514	56.31	SD4403	59.95	SD4469	26.78	SD4470	34.30	SD4299	15.07	PREVAIL	21.32	SD4471	34.50	SD4514	378.8
SD4472	56.00	SD4451	59.94	SD4493	26.89	SD4471	34.54	SD4451	15.05	SD4416	21.65	PREVAIL	35.00	SD4511	391.8
SD4450	55.71	FALLER	59.91	TRAVERSE	26.89	STEELE-ND	34.65	STEELE-ND	15.00	SD4470	22.07	SD4330	35.33	SD4517	391.8
SD4511	55.54	SD4501	59.90	SD4330	27.00	FALLER	34.69	SD4393	15.00	STEELE-ND	22.63	FALLER	36.17	SD4539	391.8
SD4403	55.45	SD4416	59.87	SD4515	27.06	SD4450	34.69	SD4450	14.95	SD4517	22.67	SD4450	36.67	SD4471	394.7
ADVANCE	55.41	SD4529	59.76	SD4517	27.06	BRIGGS	34.72	SD4493	14.94	SD4400	22.82	SD4492	37.00	SD4400	396.1
SELECT	55.36	SD4393	59.65	SD4393	27.22	SD4501	34.72	SD4543	14.94	FALLER	22.92	SD4383	37.50	FALLER	397.5
SD4330	55.24	SD4465	59.64	SD4465	27.22	SD4546	34.74	BRICK	14.90	SD4543	23.08	SD4393	37.50	SD4546	406.2
SD4496	54.96	ADVANCE	59.62	OXEN	27.44	SD4537	34.80	SD4511	14.90	SD4496	23.11	SD4477	37.50	SD4524	414.8
SD4416	54.84	PREVAIL	59.55	SD4532	27.44	BRICK	34.82	SD4472	14.89	SD4539	23.13	SD4529	37.50	BRICK	416.3
SD4543	54.59	SD4496	59.51	SD4524	27.50	SD4548	34.96	SD4362	14.87	SD4506	23.91	SD4537	37.50	SD4450	416.3
SD4539	54.52	SD4299	59.47	SD4529	27.94	SD4403	35.04	SD4400	14.83	SD4469	23.96	SD4465	38.33	SD4501	426.3
SD4515	54.33	SD4524	59.43	SD4416	28.00	SELECT	35.24	SD4539	14.80	SD4492	24.05	SD4493	39.17	PREVAIL	429.2
SD4469	54.10	SD4518	59.40	SD4543	28.00	SD4492	35.48	SD4537	14.80	SD4537	24.17	SD4539	39.17	ADVANCE	437.9
SD4529	54.03	SD4539	59.40	STEELE-ND	28.11	SD4518	35.54	SD4469	14.78	SD4403	24.23	SD4515	40.33	SD4465	440.7
SD4400	53.99	SD4400	59.37	GRANGER	28.28	SD4469	35.65	OXEN	14.78	ADVANCE	24.35	SD4501	40.83	SD4515	443.6
SD4492	53.68	SD4493	59.33	SD4506	28.33	SD4321	35.76	GRANGER	14.78	SD4520	24.35	SD4506	40.83	SD4470	447.9
SD4493	53.43	SD4477	59.32	SD4477	28.50	TRAVERSE	36.13	SD4520	14.77	SD4515	24.58	SD4517	40.83	FOREFRONT	450.8
SD4532	53.26	GRANGER	59.30	PREVAIL	28.83	SD4532	36.31	SD4383	14.75	BRIGGS	24.65	SD4524	40.83	STEELE-ND	456.6
SD4321	52.91	SD4471	59.23	SD4518	29.00	SD4362	36.48	FOREFRONT	14.73	SD4546	24.99	SD4472	42.50	BRIGGS	459.5
SD4470	52.76	SD4515	59.21	SD4548	29.22	SD4529	36.53	SD4492	14.70	SD4477	25.02	STEELE-ND	42.50	SD4496	472.4
GRANGER	52.62	SD4472	59.16	SD4537	29.44	SD4496	36.81	SELECT	14.67	SELECT	25.33	BRIGGS	44.17	GRANGER	475.3
KNUDSON	51.96	SD4321	59.08	SD4514	29.56	SD4330	36.92	SD4465	14.66	SD4532	25.53	KNUDSON	44.17	SD4416	475.3
SD4506	51.84	STEELE-ND	58.97	SD4400	29.61	SD4539	36.92	SD4470	14.66	SD4529	26.63	SD4548	44.17	SD4520	509.9
OXEN	51.72	KNUDSON	58.78	SD4539	29.61	FOREFRONT	37.12	SD4532	14.55	GRANGER	26.93	SD4546	45.00	TRAVERSE	509.9
STEELE-ND	51.14	SD4470	58.67	SD4403	29.72	SD4543	37.68	TRAVERSE	14.43	OXEN	27.30	SELECT	45.33	SD4321	512.8
BRIGGS	51.13	SD4469	58.65	ADVANCE	29.78	SD4400	37.73	SD4471	14.42	TRAVERSE	27.31	TRAVERSE	47.50	SD4537	528.6
SD4501	50.96	SD4383	58.62	SD4511	30.17	SD4520	37.79	ADVANCE	14.28	SD4465	27.87	SD4532	49.17	OXEN	544.4
SD4520	50.80	BRIGGS	58.28	FALLER	30.39	SD4506	37.97	KNUDSON	14.20	SD4548	28.00	GRANGER	50.00	KNUDSON	553.1
SD4517	50.50	SD4517	57.82	KNUDSON	30.83	GRANGER	38.14	PREVAIL	14.09	SD4524	29.63	SD4451	50.00	SD4548	561.7
SD4518	48.18	TRAVERSE	56.71	SD4520	31.44	SD4514	38.14	SD4524	14.00	SD4518	30.45	OXEN	51.67	SD4518	574.7
SD4548	46.62	OXEN	56.54	SD4299	31.72	SD4511	40.50	FALLER	13.90	KNUDSON	30.61	SD4518	51.67	SELECT	586.2
MEAN	54.88		59.58		27.48		35.18		14.92		22.7		37.4		415.7
Isd (0.05)	1.47		0.31		0.80		0.78		0.18		6.2		11.5		112.6
cv (%)	5.59		1.62		7.48		5.24		3.12		17.4		20.0		19.6
std dev	3.07		0.97		2.06		1.84		0.47		3.9		7.5		81.6

NOTES:
Entries above the "___" are those in the best LSD grouping (i.e., "A").

Table 10. BLUP comparisons among CPT entries tested for various characteristics in South Dakota over years 2012-2014.

ENTRY	GRAIN YIELD 18 environments		TEST WEIGHT 18 environments		PLANT HEIGHT 18 environments		LODGING 15 environments		GRAIN PROTEIN 18 environments		FHB DISEASE INDEX 3 environments		FHB FDK SCORE 3 environments	
	BU/AC	ENTRY	LB/BU	ENTRY	INCHES	ENTRY	SCORE	ENTRY	%	ENTRY	DIS	ENTRY	%	
MS STINGRAY	66.66	BREAKER	60.25	SAMSON	28.58	LINKERT	0.86	SD4321	16.74	SABIN	19.08	FOREFRONT	26.52	
PROSPER	60.89	BRICK	60.08	SY ROWYN	28.76	WB-MAYVILLE	1.13	MN08165-8	16.59	SD4321	20.31	MS STINGRAY	27.18	
TRVERSE	60.45	SD4362	59.87	ROLLAG	28.87	MS STINGRAY	1.13	CHRIS	16.50	SD4362	20.98	SD4321	27.84	
FALLER	59.74	FOREFRONT	59.81	WB-MAYVILLE	28.90	LCS BREAKAWA	1.20	ROLLAG	16.31	SY ROWYN	21.90	ND817	28.28	
PREVAIL	59.51	SELECT	59.62	LINKERT	29.13	MN08165-8	1.20	LINKERT	16.21	FOREFRONT	23.69	SD4362	28.28	
LCS ALBANY	59.49	ND817	59.56	ADVANCE	29.57	WB9879CLP	1.25	ND819	16.17	BRICK	24.30	BREAKER	28.54	
ADVANCE	58.90	PREVAIL	59.15	LCS BREAKAWA	29.62	NORDEN	1.25	BRIGGS	15.94	ND817	24.34	NORDEN	28.58	
SY ROWYN	58.62	NORDEN	59.11	LCS ALBANY	29.87	VELVA	1.30	SD4299	15.91	BREAKER	24.56	SELECT	28.70	
FOREFRONT	58.14	ADVANCE	59.07	LCS POWERPLA'	30.28	SAMSON	1.33	BARLOW	15.90	TRVERSE	24.86	SY ROWYN	28.72	
ND817	57.80	LCS BREAKAWA	59.05	SABIN	30.53	MOTT	1.38	MOTT	15.89	PREVAIL	24.96	FALLER	28.79	
SD4362	57.30	BARLOW	58.99	NORDEN	30.82	PREVAIL	1.44	WB-MAYVILLE	15.89	ADVANCE	25.11	ELGIN	28.83	
SD4189	57.28	SABIN	58.92	PREVAIL	30.88	BREAKER	1.47	ELGIN	15.88	SD4299	25.21	BRICK	28.85	
WB-DIGGER	56.98	ROLLAG	58.89	RB07	30.94	WB-DIGGER	1.50	LCS BREAKAWA	15.87	MS STINGRAY	25.48	LCS ALBANY	29.03	
SELECT	56.73	SY ROWYN	58.82	ND819	31.14	ELGIN	1.57	ND817	15.87	LCS POWERPLA'	25.59	BRIGGS	29.07	
BREAKER	56.63	MS STINGRAY	58.44	MN08165-8	31.42	PROSPER	1.57	SABIN	15.80	MOTT	25.92	ND819	29.16	
RB07	56.55	MOTT	58.44	BRIGGS	31.75	ROLLAG	1.57	SD4362	15.75	BARLOW	26.12	LCS BREAKAWA	29.38	
SD4299	56.22	LCS POWERPLA'	58.43	SELECT	31.77	FALLER	1.58	RB07	15.72	LCS ALBANY	26.41	ROLLAG	29.40	
BRICK	55.95	MN08165-8	58.40	SD4299	31.78	SD4321	1.60	BREAKER	15.71	LINKERT	27.11	BARLOW	29.49	
BRIGGS	55.76	LINKERT	58.37	WB-DIGGER	31.78	SD4299	1.60	SELECT	15.68	FALLER	27.17	PREVAIL	29.53	
BARLOW	55.60	BRIGGS	58.33	BREAKER	31.81	BARLOW	1.61	SAMSON	15.66	BRIGGS	27.34	SABIN	29.71	
MN08165-8	55.58	RB07	58.29	WB9879CLP	31.88	SELECT	1.65	SD4189	15.64	SD4189	27.42	SD4189	29.88	
LCS POWERPLAY	55.32	PROSPER	58.11	MS STINGRAY	32.01	TRVERSE	1.65	FOREFRONT	15.64	SELECT	28.44	PROSPER	30.02	
SABIN	55.20	LCS ALBANY	58.01	FALLER	32.06	ADVANCE	1.66	BRICK	15.63	PROSPER	28.45	LCS POWERPLA'	30.04	
LCS BREAKAWAY	55.05	SD4299	57.92	PROSPER	32.25	BRICK	1.66	VELVA	15.54	ND819	28.52	MOTT	30.06	
ELGIN	54.80	SD4189	57.87	BRICK	32.51	LCS ALBANY	1.68	WB9879CLP	15.49	NORDEN	28.70	SD4299	30.10	
WB-MAYVILLE	54.57	WB-DIGGER	57.82	VELVA	32.60	SD4362	1.73	LCS POWERPLA'	15.46	LCS BREAKAWA	28.79	ADVANCE	30.31	
ROLLAG	54.45	ND819	57.81	BARLOW	32.70	FOREFRONT	1.79	WB-DIGGER	15.42	ROLLAG	28.89	LINKERT	30.48	
NORDEN	54.32	FALLER	57.77	TRVERSE	32.89	LCS POWERPLA'	1.80	NORDEN	15.37	CHRIS	28.97	WB-DIGGER	30.53	
MOTT	54.32	SD4321	57.74	SD4321	33.18	ND819	1.83	SY ROWYN	15.35	MN08165-8	29.03	VELVA	30.84	
SAMSON	54.17	ELGIN	57.66	SD4189	33.25	BRIGGS	1.84	PROSPER	15.30	WB-DIGGER	29.35	RB07	30.91	
VELVA	54.05	WB-MAYVILLE	57.49	SD4362	33.68	RB07	1.84	FALLER	15.30	ELGIN	29.35	WB-MAYVILLE	31.03	
SD4321	52.99	SAMSON	56.95	FOREFRONT	33.76	SABIN	1.84	PREVAIL	15.29	VELVA	29.36	MN08165-8	31.81	
LINKERT	52.71	TRVERSE	56.58	ND817	33.80	ND817	1.85	ADVANCE	15.26	RB07	31.69	WB9879CLP	32.03	
SD4321	50.18	VELVA	56.15	ELGIN	34.62	SD4189	1.86	TRVERSE	15.11	SAMSON	35.17	SAMSON	32.61	
WB9879CLP	47.35	CHRIS	56.14	MOTT	34.63	SY ROWYN	1.87	LCS ALBANY	14.94	WB-MAYVILLE	35.39	CHRIS	32.78	
CHRIS	39.36	WB9879CLP	54.63	CHRIS	38.67	CHRIS	2.78	MS STINGRAY	14.23	WB9879CLP	37.76	TRVERSE	33.42	
MEAN	55.82		58.29		31.74		1.58		15.69		27.10		29.74	
lsd (0.05)	2.53		0.65		0.57		0.22		0.20		5.15		4.10	
cv (%)	7.72		2.03		6.44		20.69		3.04		14.47		5.10	
std dev	4.31		1.19		2.04		0.33		0.48		3.92		1.52	

NOTES:

Entries above the "___" are those in the best LSD grouping (i.e., "A").