

2012 Advanced Spring Wheat Yield Trial Mill & Bake

Location: Means Across Locations Boz. IRR, Boz. Dry, Havre, Sidney & Moccasin

Sample No.	Whole Grain Analysis				Flour Analysis			
	Identity	Pedigree	Class	Wheat Protein, % (12% m.b.)	Single Kernel Hardness	Flour Yield, %	Flour Protein, % (14% m.b.)	Flour Color L*brightness
1	CI 10003	THATCHER HRS	HRS	16.1	81.7	61.8	14.2	
2	CI 13596	FORTUNA HRS	HRS	15.8	75.3	59.3	14.3	
3	PI574642	MCNEAL HRS	HRS	16.2	95.7	56.1	14.7	
4	ND 695	REEDER HRS	HRS	15.9	79.3	63.1	14.1	
5	PI633974	CHOTEAU HRS	HRS	16.1	77.6	63.3	14.5	
6	PI642366	VIDA HRS	HRS	15.6	84.6	66.1	13.9	
7	PI660981	DUCLAIR HRS	HRS	15.9	73.3	62.0	14.0	
8	BZ992588	CONAN HRS	WestBred HRS	15.9	82.0	62.6	13.8	
9	BZ996434	CORBIN HRS	WestBred HRS	16.3	77.6	64.5	14.2	
10	ACS52610	VOLT HRS	WestBred HRS	15.6	93.0	62.5	13.8	
11	BZ999592	ONEAL HRS	WestBred HRS	16.3	91.2	63.2	14.2	
12	BZ9M1044	JEDD HRS	WestBred HRS	15.8	89.0	62.9	14.2	
13	BZ92413R	WB GUNNIE HRS	WestBred HRS	15.2	87.3	60.1	13.3	
14	AGRIPRO6	KELBY HRS	Syngenta (f HRS	15.7	82.3	61.7	13.4	
15	AGRIPRO8	AP604 CL HRS	Syngenta (f HRS	16.3	78.5	62.0	14.4	
16	NDSW0449	MOTT HRS	NDSU HRS	17.1	78.6	63.9	15.1	
17	AGRIPR12	SY TYRA HRS	Syngenta (f HRS	15.4	95.2	60.1	13.4	
18	AGRIPR10	BRENNAN HRS	Syngenta (f HRS	15.9	84.8	61.7	13.7	
19	WB9879CL	CHOTEAU* HRS	WestBred HRS	16.2	75.6	61.7	14.4	
20	MT 1002	CHOTEAU/ HRS	HRS	15.8	74.5	64.5	14.0	
21	MT 1007	CHOTEAU/ HRS	HRS	15.8	77.8	63.1	14.1	
22	MT 1008	CHOTEAU/ HRS	HRS	15.3	77.1	63.8	13.4	
23	MT 1016	CHOTEAU/ HRS	HRS	16.2	87.3	61.9	14.2	
24	MT 1053	VIDA/MTHV HRS	HRS	15.0	85.0	66.3	13.3	
25	MT 1073	CHOTEAU/ HRS	HRS	15.2	74.2	59.3	13.5	
26	MTHW1057	MTHW0202 HWS	HWS	15.3	84.5	61.9	13.2	
27	MTHW1060	MTHW0202 HWS	HWS	16.2	80.9	62.0	14.3	
28	MTHW1064	AGAWAM/ HWS	HWS	15.8	82.0	62.3	13.9	
29	MT 1103	CHOTEAU/ HRS	HRS	16.3	66.9	62.6	14.4	
30	MT 1106	MT0515/CH HRS	HRS	16.0	78.8	63.1	14.0	
31	MT 1108	MT0515/CH HRS	HRS	16.6	76.4	63.1	14.3	
32	MT 1111	CHOTEAU/ HRS	HRS	15.6	75.7	62.9	13.7	
33	MT 1112	CHOTEAU/ HRS	HRS	15.2	73.0	62.8	13.5	
34	MT 1113	CHOTEAU/ HRS	HRS	15.6	78.3	63.7	13.8	
35	MT 1118	CHOTEAU/ HRS	HRS	16.1	78.2	65.1	14.1	
36	MT 1119	CHOTEAU/ HRS	HRS	15.9	82.8	62.3	14.2	

37	MT 1120	CHOTEAU/	HRS		16.3	90.4	62.8	14.6
38	MT 1133	MT0628/MT	HRS		16.2	86.7	64.0	14.3
39	MT 1142	06SR49/06	HRS		16.4	74.6	63.6	14.6
40	MT 1146	06SR149/0	HRS		17.2	75.4	65.3	15.2
41	MT 1154	IRIS/REED	HRS		16.0	69.6	65.0	14.4
42	MT 1156	MT0550/CH	HRS		17.1	88.4	61.2	15.1
43	MT 1157	MT0550/CH	HRS		16.6	91.4	62.1	14.9
44	MT 1164	MT0550/MT	HRS		16.1	86.6	63.4	14.2
45	MT 1166	CHOTEAU/	HRS		15.6	71.4	64.9	13.6
46	MT 1168	OUTLOOK/	HRS		16.5	87.3	61.7	14.5
47	MT 1172	MT0245/IMI	HRS		15.2	77.7	64.6	13.4
48	MT 1173	MT0245/IMI	HRS		15.8	81.0	65.9	13.7
49	MTHW1150	IDO647/MT	HWS		16.0	87.2	62.6	14.0
50	MTHW1152	ML316472/	HWS		16.4	79.6	62.5	14.7
51	CAP 34-1	CHOTEAU*	HRS		15.8	71.4	63.3	14.3
52	CAP 197-3	MT0515*2//	HRS		15.0	73.1	63.8	13.5
53	CAP219-3	MT0515*2//	HRS		15.2	71.6	65.4	13.4
54	CAP 400-1	MCNEAL/G	HRS		17.1	86.6	62.2	14.9
55	CHOTWHT	CHOTEAU/	HWS		16.2	75.3	63.7	14.6
56	HANKWHT	HANK/CLE	HWS		16.1	74.4	61.4	14.5
57	VIDAWHT1	VIDA/CLEA	HWS		15.2	89.1	65.3	13.5
58	AGRIPR13	SY605 CL	HRS	Syngenta (f	17.1	82.0	63.5	14.7
59	AGRIPR14	SY SOREN	HRS	Syngenta (f	16.6	80.3	59.8	14.5
60	WB11 2	VANTAGE	HRS	WestBred	17.9	79.8	62.8	15.4
61	WB11 3	WB ROCKL	HRS	WestBred	17.2	80.2	61.2	15.4
62	WB12 1	WB MAYVII	HRS	WestBred	16.1	81.6	61.3	14.2
63	LIMAGR1	BUCKPROI	HRS	LIMAGRAIN	16.6	80.1	62.3	14.7
64	LIMAGR3	11FX MN	HRS	LIMAGRAIN	15.8	84.4	61.6	14.2
				<i>MIN</i>	<i>15.0</i>	<i>67</i>	<i>56.1</i>	<i>13.2</i>
				<i>MAX</i>	<i>17.9</i>	<i>96</i>	<i>66.3</i>	<i>15.4</i>
				<i>AVE</i>	<i>16.0</i>	<i>81</i>	<i>62.7</i>	<i>14.2</i>

Mixograph Analysis

Bake Analysis

Flour Color A*green-red	Flour Color B*blue-yellow	Flour Ash, %	Wheat Ash, %	Mixograph Type	Mixing Tolerance	Mixo Mixing Time, min	Mixo Water Absorption, %	Bake Analysis	
								Bake Mixing Time, min	Bake Water Absorption, %
90.2	-1.1	9.6	0.40	1.75		4.8	4.4	65.4	7.6
89.9	-0.9	9.7	0.44	1.66		3.8	4.1	65.5	6.8
89.5	-0.8	10.1	0.44	1.70		6.0	7.4	68.1	11.7
90.1	-1.1	11.0	0.38	1.60		3.5	4.0	65.3	5.8
89.9	-0.8	9.8	0.39	1.66		4.8	4.4	66.0	6.2
89.2	-0.8	10.9	0.39	1.54		3.3	4.2	65.3	5.7
89.9	-0.9	10.1	0.40	1.64		4.8	5.8	65.3	8.4
89.9	-0.8	9.4	0.40	1.69		4.8	6.1	66.0	10.2
89.7	-0.7	9.8	0.41	1.68		4.3	6.1	66.3	10.4
89.4	-1.2	11.6	0.42	1.66		6.0	6.2	65.9	11.0
89.8	-1.0	10.4	0.40	1.69		6.0	8.4	66.9	13.0
89.1	-0.9	11.1	0.42	1.66		4.8	7.3	68.0	11.2
89.6	-0.9	10.3	0.42	1.63		6.0	9.4	65.4	13.5
89.6	-1.5	11.9	0.42	1.55		4.0	4.1	64.7	5.7
89.8	-1.5	11.8	0.41	1.63		3.8	4.1	66.5	5.9
89.5	-1.0	10.7	0.41	1.76		4.5	4.7	67.5	7.8
89.1	-1.0	11.4	0.41	1.66		5.3	5.4	65.5	10.0
89.9	-1.6	12.6	0.42	1.62		4.3	3.8	65.3	5.8
90.0	-1.2	10.7	0.40	1.63		3.3	3.3	65.5	3.5
90.1	-0.9	9.7	0.38	1.61		4.0	4.1	65.2	5.5
90.2	-0.9	9.3	0.38	1.59		4.8	4.8	66.0	7.2
90.1	-0.9	9.5	0.37	1.56		4.8	5.3	65.2	8.1
89.4	-1.1	11.0	0.42	1.68		4.8	5.0	66.6	7.4
89.2	-0.9	11.3	0.40	1.52		5.0	5.5	65.4	8.9
90.4	-1.3	10.3	0.39	1.53		3.5	4.2	64.8	4.9
90.1	-0.8	9.0	0.39	1.58		4.3	6.8	65.5	10.0
89.5	-1.5	12.9	0.37	1.67		4.8	5.5	67.0	8.7
89.8	-0.9	10.0	0.39	1.61		3.3	6.2	66.7	9.7
90.2	-1.1	10.2	0.37	1.58		4.8	4.5	66.5	7.1
89.9	-1.2	10.9	0.37	1.61		4.3	4.2	66.7	6.2
89.8	-1.0	10.3	0.37	1.59		4.0	4.5	66.7	6.9
89.7	-1.2	11.2	0.41	1.49		3.3	3.5	65.2	3.4
90.4	-1.3	10.5	0.39	1.48		4.0	4.1	65.0	5.6
90.0	-1.1	10.4	0.40	1.52		4.0	3.8	64.9	5.1
89.6	-0.8	10.4	0.41	1.59		5.3	6.0	66.9	8.7
89.3	-1.1	11.6	0.42	1.52		3.3	3.3	65.2	3.8

89.1	-1.0	11.5	0.41	1.61	4.0	3.9	66.6	5.6
89.5	-0.9	10.3	0.40	1.69	3.8	3.9	65.7	5.1
89.9	-0.6	9.2	0.39	1.62	3.5	3.4	66.3	4.8
89.3	-1.2	12.5	0.39	1.64	1.8	3.4	66.9	4.7
90.1	-0.9	9.7	0.39	1.58	4.3	4.6	66.1	6.9
89.3	-0.6	10.1	0.42	1.57	2.5	3.1	66.5	3.0
89.2	-0.5	10.1	0.43	1.52	2.5	2.8	66.4	2.9
89.4	-0.5	10.1	0.41	1.57	3.3	3.1	65.8	3.5
89.7	-1.1	11.2	0.37	1.65	3.5	3.2	64.8	4.5
89.6	-0.8	9.6	0.41	1.67	3.8	4.2	65.4	5.3
89.9	-0.9	10.0	0.39	1.60	3.3	3.4	64.4	3.7
89.9	-0.9	10.3	0.37	1.72	3.3	4.3	64.7	6.4
89.9	-0.7	9.2	0.37	1.62	4.5	5.0	65.3	7.4
89.7	-0.8	10.0	0.38	1.71	5.8	6.0	69.3	10.5
90.4	-0.8	9.2	0.38	1.64	6.5	11.3	69.0	19.1
90.5	-1.1	10.1	0.36	1.61	5.3	5.9	65.8	12.4
90.3	-1.1	10.3	0.36	1.55	4.0	4.4	64.7	6.9
89.9	-1.1	10.9	0.40	1.79	6.5	9.6	68.6	15.9
90.0	-0.9	10.0	0.39	1.70	5.8	6.4	67.5	11.8
90.4	-0.7	8.8	0.39	1.71	5.3	8.7	67.1	13.7
89.7	-0.9	10.7	0.37	1.63	4.3	5.1	65.7	8.9
89.7	-1.1	10.9	0.38	1.64	3.8	5.3	67.8	9.8
89.3	-1.5	12.8	0.43	1.74	4.3	4.7	66.9	8.6
89.7	-1.1	11.2	0.42	1.68	2.5	3.7	65.5	5.1
89.9	-0.9	10.0	0.42	1.70	3.3	4.1	67.2	5.8
89.5	-1.0	10.8	0.41	1.61	4.3	4.7	67.0	5.8
89.7	-0.8	9.5	0.41	1.73	5.0	7.0	66.7	12.4
89.7	-0.9	10.5	0.40	1.62	3.5	4.2	66.0	5.8
<b>89.07</b>	<b>-1.64</b>	<b>8.80</b>	<b>0.36</b>	<b>1.48</b>	<b>1.8</b>	<b>2.8</b>	<b>64.4</b>	<b>2.9</b>
<b>90.46</b>	<b>-0.52</b>	<b>12.86</b>	<b>0.44</b>	<b>1.79</b>	<b>6.5</b>	<b>11.3</b>	<b>69.3</b>	<b>19.1</b>
<b>89.77</b>	<b>-0.99</b>	<b>10.47</b>	<b>0.40</b>	<b>1.63</b>	<b>4.3</b>	<b>5.0</b>	<b>66.1</b>	<b>7.7</b>

Moisture, %	Loaf Volume	Crumb Grain Score
75.3	1218	8.0
75.7	1195	7.7
78.6	1310	8.0
74.7	1218	7.3
75.7	1216	6.5
74.8	1170	6.8
75.1	1259	7.3
75.8	1213	8.0
76.0	1195	7.8
76.6	1116	7.8
78.7	1263	7.8
78.2	1209	8.0
75.8	1203	7.8
74.4	1100	8.0
75.6	1223	7.5
77.1	1293	7.0
75.7	1189	8.0
75.0	1098	7.8
73.9	1088	6.8
74.9	1220	6.8
75.7	1173	8.0
75.0	1159	8.0
76.7	1146	7.8
75.5	1195	7.5
74.1	1076	6.5
75.6	1293	7.5
77.1	1280	7.5
76.8	1201	7.8
75.9	1213	7.8
76.5	1183	7.5
76.5	1179	7.3
73.8	1073	6.0
74.6	1118	8.0
74.1	1103	6.8
75.6	1208	8.3
74.0	1165	6.0

76.2	1293	7.3
75.1	1215	7.8
75.5	1263	6.0
75.9	1258	7.0
76.2	1144	7.8
74.2	1148	5.5
73.7	1100	5.5
73.1	1128	6.0
74.3	1133	5.5
74.9	1200	6.8
72.0	1101	6.8
73.2	1120	6.5
75.1	1168	8.0
79.4	1234	7.5
79.4	1213	7.8
75.7	1163	7.8
74.5	1163	7.8
79.8	1259	7.5
77.2	1260	8.0
76.9	1275	7.0
75.8	1230	7.3
77.8	1209	7.8
76.8	1181	7.8
75.2	1200	7.3
77.3	1305	7.3
76.9	1178	8.0
77.0	1108	8.0
75.7	1123	7.8

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<b>72.0</b>	<b>1073</b>	<b>5.5</b>
<b>79.8</b>	<b>1310</b>	<b>8.3</b>
<b>75.8</b>	<b>1189</b>	<b>7.3</b>