

2007 Hard Winter Wheat Regional Performance Nursery Quality Report



Hard Winter Wheat Quality Laboratory

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USDA/ARS

Hard Winter Wheat Quality Laboratory

Locations from the **NRPN**, and **SRPN** were subdivided into **intraregional production zones**. The intraregional production zones represent broad production regions in which several locations have been composited by similar historical yield trends. Full quality testing is performed on these samples, and the data are listed beginning with the name of the nursery followed by a zone identifier (eg. "NRPN-NCP breadmaking properties," the NCP indicating North Central Plains Zone).

The **NRPN**, and **SRPN** regional nursery locations were subdivided and variety-composited according to the following zones:

Northern Regional Performance Nursery (NRPN)

North Central Plains (NCP)

Ames, IA
Lincoln, North Platte, NE
Rosemount, Waseca, MN
Brookings, Pierre, Winner, SD

Northern Plains (NP)

Casselton, Hettinger, Williston, ND
Bozeman, Moccasin, MT

Northern High Plains (NHP)

Alliance, Sidney, NE
Archer, WY

Southern Regional Performance Nursery (SRPN)

North Central Plains (NCP)

Crawfordsville, IA
Salina, Manhattan, KS
Clay Center, Lincoln, NE
Brookings, Pierre, Winner, SD

Northern High Plains (NHP)

Akron, Burlington, Ft. Collins, Julesburg, CO
Colby, KS
Alliance, N. Platte, Sidney, NE
Farmington, NM
Archer, WY

South Central Plains (SCP)

Hays, Hutchison, Wichita, KS
Altus, Goodwell-irr, Lahoma, Stillwater, OK
Bushland-irr, Chillicothe, Dallas/Prosper, McGregor, TX

Southern High Plains (SHP)

Walsh/Springfield, CO
Garden City, KS
Clovis-dry, Clovis-irr, NM
Bushland-dry, TX

HWWQL Laboratory Analyses

About the HWWQL Quality Data ...

Milling, flour chemical, physical dough, breadmaking, and noodlemaking properties of 2007 Hard Winter Wheat regional performance nurseries have been evaluated and analyzed in the Hard Winter Wheat Quality Laboratory. The nurseries are: **Northern Regional Performance Nursery (NRPN)**, and **Southern Regional Performance Nursery (SRPN)**. Tested samples were composites from multi-location trials. Data are reported in five tables: Physical data, Hardness data, Chemical and Mixograph data, Computerized Mixograph data, Breadmaking, and Noodlemaking properties.

The following parameters are currently reported:

Physical and Hardness Data

- Test weight (TW) = lbs/bushel. (AACC Method 55-10)
- SKCS kernel moisture, size, and weight = Single Kernel Characterization System: the average of 300 kernels for kernel moisture (%), size (mm), and weight (mg) and their standard deviations.
- SKCS hardness (AACC Method 55-31) = hardness score: the average of 300 kernels for kernel hardness and its standard deviation.

Chemical Data

NIR Protein Content

NIR calibrations for protein were developed according to standard AACC methods: wheat meal (AACC Method 39-10), wheat flour (AACC Method 39-11) and whole kernel wheat (AACC Method 39-25). Laboratory values for protein content and subsequent equation development and calibration checks were determined by nitrogen combustion method (AACC Method 46-30) in all three sample types.

Wheat

- Protein (FP) = grain protein content (%) on 14% mb. (AACC Method 46-30 or 39-10)
- Flour % (FY) = flour yield (extraction) from milling (AACC Methods 26-10A, -50)

Flour

- Ash (FA) = flour ash content (%) on 14% mb. (AACC Method 08-01)
- Protein (FP) = flour protein content (%) on 14% mb. (AACC Method 46-30 or 39-11)
- Color (dry flour) = Minolta method
- PPO = polyphenol oxidase activity defined as a change of 0.001 absorbance unit (AU)/min/mL

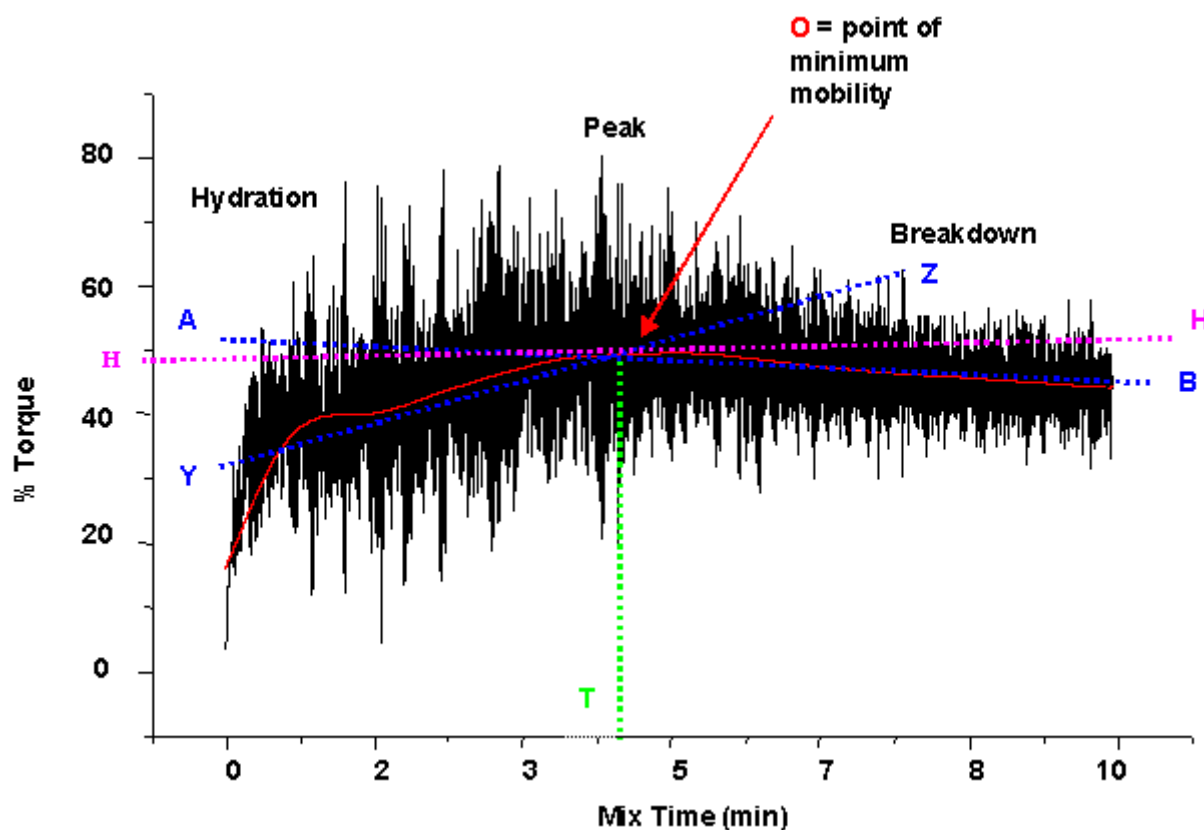
Mixograph Data

Mixograph (AACC Method 54-40)

- Absorption = optimal water added (% of flour wt. on 14% mb).
- Mix Time = time (as-is), in minutes, to peak dough development.

- Tolerance = resistance of dough to over-mixing (0 = unsatisfactory, 4 = satisfactory, 6 = outstanding).

Mixogram Curve



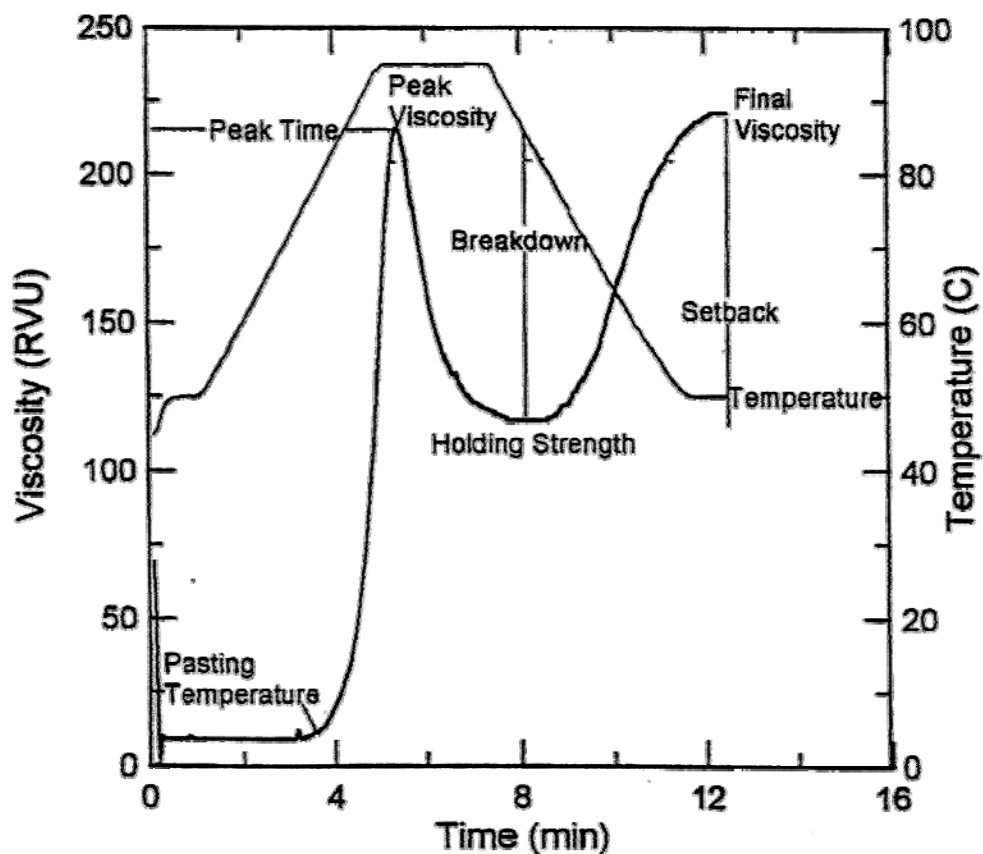
Rapid Visco Analyser (RVA) (AACC Method 61-02)

13 min pasting profile:

- Peak viscosity = maximum viscosity developed during or soon after the heating portion of the test, in RVU.
- Peak time = time at which the peak viscosity occurred, in minutes.
- Pasting temperature = temperature where viscosity first increases by at least 2 RVU over a 20 sec. period, in °C.
- Peak temperature = temperature at which the peak viscosity occurred, in °C.
- Holding strength = minimum viscosity after the peak, normally occurring around the commencement of sample cooling, in RVU.
- Breakdown = peak viscosity minus trough viscosity, in RVU.
- Final viscosity = viscosity at the end of the test, in RVU.
- Setback from Peak = final viscosity minus peak viscosity, in RVU.

- Setback from Trough = final viscosity minus trough viscosity, in RVU.

Pasting profile:



Breadmaking Properties (*Pup Loaf based on 100 g flour, AACC Method 10-10B*)

- Flour protein (FP) = flour protein content (14% mb) (AACC Method 46-30 or 39-11).
- Flour absorption = optimal water added (%) for breadmaking.
- Mix time = bake mix time, in min, as-is and corrected.
- Dough weight = dough weight (g) after mixing.
- Proof height = height of fermented dough (cm) after proofing.
- Crumb grain = internal loaf appearance; 0 = unsatisfactory, 4 = satisfactory 6 = outstanding).
- Loaf volume (LV) = cc (by rape seed displacement).

Noodlemaking Properties

- Alkaline noodle color by Minolta colorimeter

The data were provided by the Hard Winter Wheat Quality Laboratory (HWWQL), located at the USDA/ARS, Grain Marketing & Production Research Center, Manhattan, Kansas. Some data may not appear in all years.

HWWQL personnel who contributed to the collection and analysis of the RPN samples are listed below:

Milling Lab: Laura McLaughlin, B.S.

Bake/Mixograph Lab: Margo Caley, B.S.; Zina Haden, B.S.; Susan Xiao, M.D.; Guixiang (Lucy) Lu, M.D.

NIR/SKCS Lab: Alicsa Mayer, M.S.

Analytical Lab: Kevin Fay, B.S.

Noodle Quality Consultation: Seokho Park, Ph.D.

Data evaluation & Written report: Richard Chen, Ph.D.

HWWQL: Brad Seabourn, Ph.D (HWWQL Director)

**AACC methods cited are from the American Association of Cereal Chemists Approved Methods. 2000. The Association: St. Paul, MN.

Regional Performance Nursery data may be viewed and downloaded at:

<http://www.ars.usda.gov/Main/docs.htm?docid=14298&page=3>

Northern Regional Performance Nursery

2007 NRPN Intraregional Production Zone

Entry	Selection No.	Pedigree	Source
1	Kharkof	Kharkof	check
2	Harding	Harding	check
3	Nuplains	Nuplains	check
4	Wesley	Wesley	check
5	Jerry	Roughrider // Winoka / NB66425 /3/ Arapahoe	NDSU
6	98x0435-15	W95-091/W96-427	Agripro
7	BC98334-04\$-02\$	KS920709B-5-2/Stanof//KS920709B5-2	Agripro
8	BC98334-10W-8W	KS920709B-5-2/Stanof//KS920709B5-2	Agripro
9	HV9W98A-1002R	B1127/3/B1551//ROWDY/RWA 671 MONT	Westbred
10	HV9W02-846R	474S10-1/X87807-26//HBK0736-3	Westbred
11	Millennium-27, ALS-1	Selection from mutagenized Millennium	UNL
12	NE03458	NE95544 (=MCVEY 78015/NE88521)/W91-348 X MILLENNIUM (=ARAPAH	UNL
13	NE04490	NE95589/NE94632(=ABILENE/NORKAN//RAWHIDE) X NE95510(=ABILEN	UNL
14	NE04537	KS92H363-2/CULVER(=NE92419/ARAPAHOE) X NE96605(=ARAPAHOE/	UNL
15	NH03614	N95L164 X MILLENNIUM SIB//TXGH125888-120*4/FS2	UNL
16	NI05711	Wesley//NE88584/KSSB-369-7 X NE88584/KSSB-369-7	UNL
17	NI05714	KS87W822-2-1/NE88427//NE88584/KSSB-369-7 X NE88584/KSSB-369-7	UNL
18	NI05720W	KM 602-90/NE89657//Heyne X Heyne	UNL
19	NW03681	WI88-052/WI81-162-610W//N94L189	UNL
20	N98L20040-44	CS/PI467024//CS/3/SXLD/4/TAM202/5/SXLD	ARS-LNK
21	SD96240-3-1	NE87513/USSR#67	SDSU
22	SD98W175-1	KS84273BB-10/KSSB110-9//KS831374-141B/YE1110/3/KS82W418/SPN	SDSU
23	SD05W012	NW96S016/SD98W327	SDSU
24	SD05W018	SD98W302/SD98W175	SDSU
25	SD05W030	SD98W302/NW97S186	SDSU
26	SD05W138	SD98416/SD98W331	SDSU
27	SD05W140	SD98153/WENDY	SDSU
28	SD02804-1	Romania42/Tandem//SD94149	SDSU
29	SD05004	ERYT26221/SD94149//SD98208	SDSU
30	SD05118	Wesley/NE93613	SDSU
31	SD05179	SD98224/OK95548-26	SDSU
32	SD05210	SD98444/SD97060	SDSU
33	BZ9W02-2051	Meridian/Ike	Westbred
34	NX03Y2489	BaiHuo/Kanto107//Ike/3/KS91H184/3*RBL//N87V106	ARS-LNK
35	NWX03Y2459	BaiHuoMai/Ike//KS91H184/3*RBL//N87V106	ARS-LNK
36	MT0419	Erhardt/KS92H21-4//Pronghorn	MTSU
37	MTCL0477	MT9409*2/IMIBC303-9(TAM 110's*4/FS2)//Neeley	MTSU
38	MT0495	MT9640/NB1133	MTSU



Hard Winter Wheat Quality Report 2007 NRPN-NCP

1 - Test weight	10	11 - Flour protein	8
2 - SKCS kernel weight	8	12 - Bake absorption	15
3 - Kernel weight SD	8	13 - Mixograph absorption	5
4 - SKCS kernel diameter	8	14 - Bake mix time	10
5 - Kernel diameter SD	8	15 - Mixograph mix time	5
6 - SKCS hardness	10	16 - Mixograph tolerance	5
7 - Hardness SD	8	17 - Dough weight	
8 - Flour yield	30	18 - Proof height	2
9 - Flour ash	10	19 - Loaf volume	20
10 - Milling score		20 - Volume regression	5
		21 - Crumb grain	25

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
Kharkof	48.0	Average	82.1	46.6	Average	63.9		
Harding	51.3	Good	87.8	52.8	Good	72.4		
Nuplains	49.3	Average	84.3	37.2	Poor	51.1		2,4,
Wesley	48.4	Average	82.8	53.3	Good	73.1		3,5,14,15,
Jerry	51.5	Good	88.1	60.1	Very Good	82.4		
Hawken	53.0	Good	90.7	31.3	Very Poor	43.0		14,15,
BC98334-04\$-02\$	49.8	Good	85.3	29.7	Very Poor	40.7		16,18,19,
BC98334-10W-8W	48.2	Average	82.5	38.7	Poor	53.1		
HV9W98A-1002R	50.9	Good	87.0	60.5	Very Good	83.0		2,4,
Winterhawk	57.8	Very Good	99.0	50.4	Good	69.2		
Millennium-27, ALS-1	56.4	Very Good	96.5	62.6	Very Good	85.9		
NE03458	46.9	Poor	80.2	35.4	Very Poor	48.6		11,
NE04490	47.4	Poor	81.2	42.7	Average	58.6		
NE04537	56.4	Very Good	96.6	31.7	Very Poor	43.5		15,
Compass	53.3	Very Good	91.3	45.0	Average	61.7		11,13,14,
NI05711	47.3	Poor	80.9	54.8	Good	75.1		3,5,14,15,
NI05714	44.3	Very Poor	75.8	35.3	Very Poor	48.4		9,10,
NI05720W	38.5	Very Poor	66.0	64.2	Very Good	88.0		8,
NW03681	58.4	Very Good	100.0	53.1	Good	72.9		14,
N98L20040-44	40.6	Very Poor	69.6	44.7	Average	61.3		1,5,
SD96240-3-1	46.1	Poor	78.9	47.5	Average	65.1		16,
SD98W175-1	49.9	Average	85.4	58.6	Good	80.3		3,14,
SD05W012	45.6	Very Poor	78.1	30.5	Very Poor	41.9		12,16,17,
SD05W018	46.4	Poor	79.5	52.3	Good	71.7		13,16,17,
SD05W030	49.0	Average	83.8	35.6	Poor	48.8		16,
SD05W138	49.6	Average	84.9	41.8	Poor	57.4		9,13,
SD05W140	53.0	Good	90.7	38.0	Poor	52.1		12,16,17,
SD02804-1	46.8	Poor	80.2	65.3	Very Good	89.6		5,9,10,
SD05004	50.5	Good	86.5	34.9	Poor	47.9		12,14,15,16,17,
SD05118	56.0	Very Good	95.9	35.2	Very Poor	48.3		

Quality scores and ratings are calculated directly from the relative trait weightings (printed at the top of the page) and are applicable only to the nursery selected.



Hard Winter Wheat Quality Report 2007 NRPN-NCP

1 - Test weight	10	11 - Flour protein	8
2 - SKCS kernel weight	8	12 - Bake absorption	15
3 - Kernel weight SD	8	13 - Mixograph absorption	5
4 - SKCS kernel diameter	8	14 - Bake mix time	10
5 - Kernel diameter SD	8	15 - Mixograph mix time	5
6 - SKCS hardness	10	16 - Mixograph tolerance	5
7 - Hardness SD	8	17 - Dough weight	
8 - Flour yield	30	18 - Proof height	2
9 - Flour ash	10	19 - Loaf volume	20
10 - Milling score		20 - Volume regression	5
		21 - Crumb grain	25

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
SD05179	51.6	Good	88.4	60.7	Very Good	83.3		5,
SD05210	54.8	Very Good	93.9	52.2	Good	71.6		14,15,
BZ9W02-2051	45.7	Poor	78.3	42.3	Poor	58.0		
NX03Y2489	39.1	Very Poor	66.9	49.6	Average	68.0		8,16,21,
NWX03Y2459	43.0	Very Poor	73.5	32.6	Very Poor	44.7		15,16,21,
MT0419	47.6	Poor	81.4	50.2	Average	68.8		
MTCL0477	44.9	Very Poor	76.9	43.1	Poor	59.1		10,
MT0495	39.2	Very Poor	67.1	72.9	Very Good	100.0		1,2,8,

2007 NRPN Intraregional Production Zone

North Central Plains

LINE	Wt/Bu (lb)	SKCS Average Kernel						Hardness			
		Moisture		Weight		Diameter		SKCS	Class	Distribution	
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)				
Kharkof	60.0	12.9	0.5	28.9	7.9	2.12	0.44	43	19	MIXED	030-033-017-020-03
Harding	59.3	12.6	0.4	29.0	9.1	2.17	0.49	67	18	HARD	005-006-020-069-01
Nuplains	57.8	12.6	0.4	24.0	7.8	1.89	0.44	66	19	HARD	006-010-019-065-02
Wesley	57.1	12.4	0.4	29.6	10.2	2.17	0.55	57	19	MIXED	011-018-023-048-03
Jerry	57.8	12.4	0.4	29.9	8.7	2.10	0.45	52	17	MIXED	012-024-027-037-03
98x0435-15	58.9	12.3	0.5	28.2	8.5	2.17	0.52	62	15	HARD	002-016-026-056-01
BC98334-04\$-02\$	58.3	12.1	0.4	29.3	8.8	2.11	0.48	53	18	MIXED	013-023-032-032-03
BC98334-10W-8W	57.9	12.0	0.4	28.7	8.8	2.08	0.48	53	17	HARD	009-026-032-033-02
HV9W98A-1002R	59.2	12.0	0.4	24.4	8.0	1.85	0.45	58	19	HARD	009-015-026-050-02
HV9W02-846R	60.3	11.6	0.6	31.0	8.7	2.21	0.48	60	16	HARD	006-014-024-056-02
Millennium-27, ALS-1	60.2	11.6	0.5	28.3	8.2	2.08	0.46	65	17	HARD	003-010-023-064-01
NE03458	56.1	11.7	0.5	25.2	8.7	2.02	0.51	61	18	HARD	007-011-027-055-02
NE04490	58.2	11.4	0.5	30.1	9.2	2.20	0.53	56	17	HARD	010-015-032-043-02
NE04537	58.8	11.2	0.5	27.2	7.6	2.07	0.44	70	16	HARD	002-007-015-076-01
NH03614	58.9	11.5	0.5	31.0	9.0	2.19	0.51	59	17	HARD	007-015-027-051-02
NI05711	55.3	11.2	0.5	31.1	10.1	2.21	0.56	54	15	HARD	006-024-030-040-02
NI05714	58.1	11.3	0.5	27.9	9.2	2.12	0.49	73	18	HARD	003-005-011-081-01
NI05720W	55.4	11.0	0.6	25.7	8.5	2.01	0.47	57	19	MIXED	011-016-028-045-03
NW03681	60.8	11.0	0.4	31.0	9.4	2.31	0.53	67	15	HARD	001-007-018-074-01
N98L20040-44	53.2	11.2	0.5	29.6	9.8	2.16	0.56	54	19	MIXED	012-022-025-041-03
SD96240-3-1	56.3	11.0	0.5	28.8	9.0	2.15	0.49	62	17	HARD	006-012-024-058-02
SD98W175-1	59.2	11.4	0.5	30.3	9.9	2.26	0.52	67	17	HARD	002-008-022-068-01
SD05W012	57.0	11.8	0.5	32.2	9.4	2.17	0.46	50	17	MIXED	016-026-031-027-03
SD05W018	57.4	11.7	0.5	29.3	8.6	2.05	0.49	55	18	MIXED	012-019-027-042-03
SD05W030	58.6	11.2	0.5	26.8	7.3	2.00	0.45	65	18	HARD	003-010-025-062-01
SD05W138	59.1	11.5	0.5	27.5	9.2	2.10	0.46	62	17	HARD	005-012-022-061-01
SD05W140	60.1	11.3	0.5	30.1	8.4	2.25	0.46	60	16	HARD	004-016-030-050-01
SD02804-1	57.0	11.6	0.5	26.7	8.8	1.97	0.57	72	17	HARD	001-004-018-077-01
SD05004	58.8	11.5	0.5	28.0	9.4	2.05	0.47	62	16	HARD	005-010-030-055-01
SD05118	59.0	11.5	0.6	31.7	9.1	2.34	0.53	66	16	HARD	003-006-023-068-01
SD05179	59.2	11.7	0.6	31.8	9.7	2.23	0.56	65	16	HARD	002-010-025-063-01
SD05210	58.6	11.4	0.6	27.6	8.4	2.01	0.48	65	16	HARD	003-009-024-064-01
BZ9W02-2051	55.5	11.5	0.5	25.6	8.2	2.00	0.45	67	17	HARD	003-007-021-069-01
NX03Y2489	55.4	11.5	0.5	29.3	9.5	2.15	0.52	62	18	HARD	007-013-021-059-02
NWX03Y2459	56.9	11.6	0.5	27.7	9.2	2.12	0.51	55	17	HARD	008-024-030-038-02
MT0419	57.4	11.5	0.5	26.2	9.0	1.98	0.47	68	18	HARD	003-008-019-070-01
MTCL0477	55.1	11.4	0.5	25.4	8.2	1.98	0.45	62	18	HARD	006-012-024-058-02
MT0495	52.0	11.6	0.6	24.4	7.5	1.95	0.45	68	17	HARD	003-010-018-069-01

2007 NRPN Intraregional Production Zone

North Central Plains

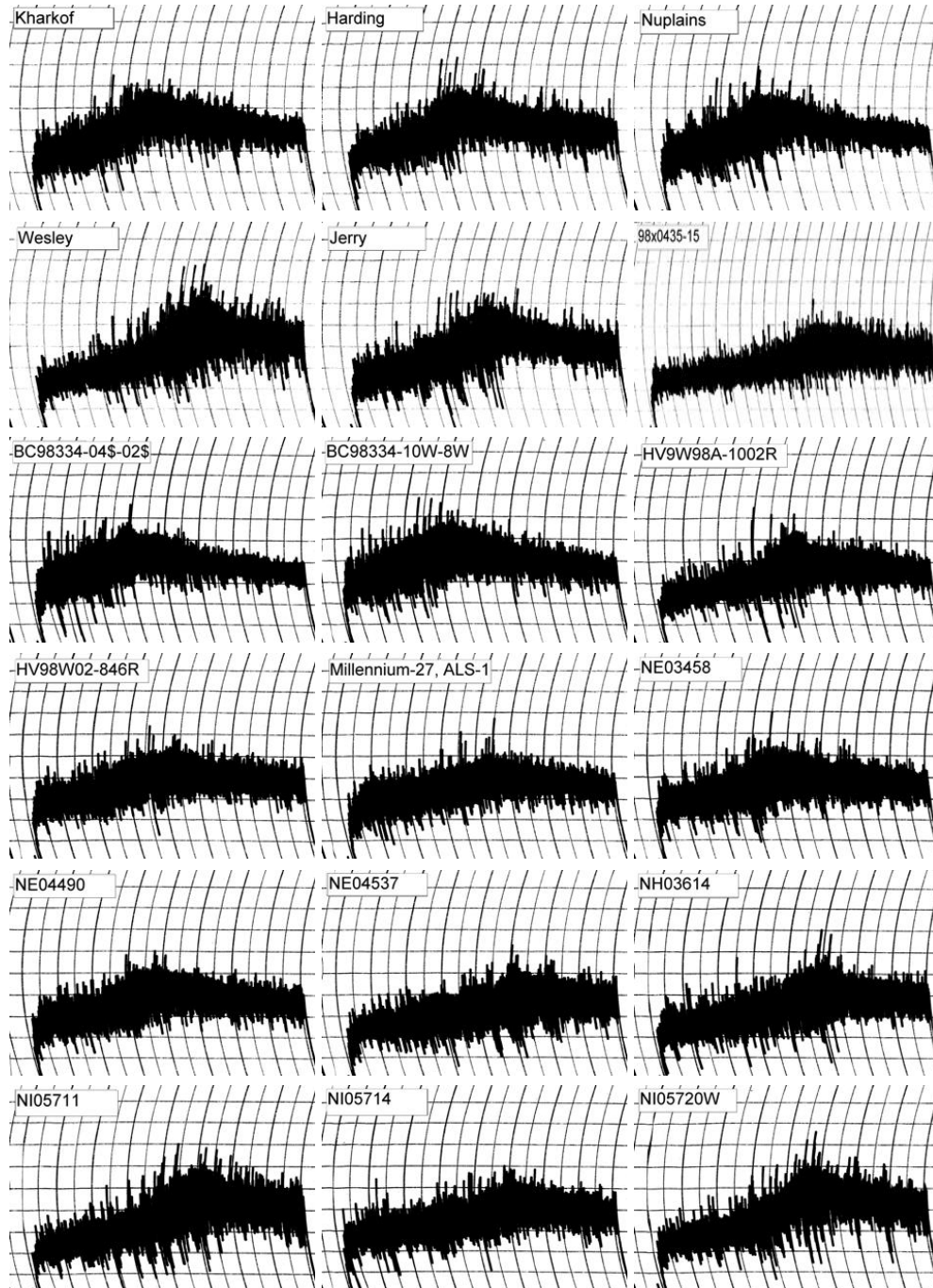
	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	12.8	64.3	3.63	3.63	4
Harding	12.7	64.1	3.50	3.50	4
Nuplains	12.0	62.9	3.25	3.24	3
Wesley	12.6	62.9	5.13	5.13	5
Jerry	12.4	63.7	4.38	4.38	4
98x0435-15	12.6	63.0	7.50	7.50	6
BC98334-04\$-02\$	11.6	62.2	3.00	2.85	2
BC98334-10W-8W	12.3	63.5	3.38	3.38	3
HV9W98A-1002R	11.8	62.6	4.38	4.26	4
HV9W02-846R	11.8	62.6	4.38	4.26	4
Millennium-27, ALS-1	11.6	62.3	3.75	3.58	4
NE03458	11.4	61.9	3.63	3.37	4
NE04490	11.8	62.6	3.88	3.78	4
NE04537	11.9	62.7	5.13	5.04	5
NH03614	11.4	61.0	5.00	4.66	5
NI05711	12.3	63.5	5.13	5.13	5
NI05714	12.0	62.9	5.00	5.00	5
NI05720W	12.9	63.4	4.88	4.88	5
NW03681	12.4	63.6	4.50	4.50	5
N98L20040-44	11.9	62.8	4.00	3.97	4
SD96240-3-1	12.2	63.2	3.50	3.50	2
SD98W175-1	13.1	64.8	4.63	4.63	5
SD05W012	12.0	62.9	2.63	2.62	1
SD05W018	11.9	61.3	3.63	3.59	2
SD05W030	11.6	62.2	3.50	3.31	2
SD05W138	12.2	61.3	4.25	4.25	3
SD05W140	13.1	61.7	4.00	4.00	1
SD02804-1	12.4	63.7	4.00	4.00	4
SD05004	12.8	63.3	1.78	1.78	0
SD05118	12.3	63.4	5.00	5.00	5
SD05179	11.8	62.6	3.63	3.54	4
SD05210	12.7	63.2	6.00	6.00	6
BZ9W02-2051	11.7	62.4	4.13	3.97	4
NX03Y2489	12.4	65.1	3.00	3.00	1
NWX03Y2459	13.0	64.6	1.38	1.38	1
MT0419	12.8	64.2	4.00	4.00	4
MTCL0477	12.6	63.9	4.25	4.25	4
MT0495	13.6	65.7	4.50	4.50	5

2007 NRPN Intraregional Production Zone

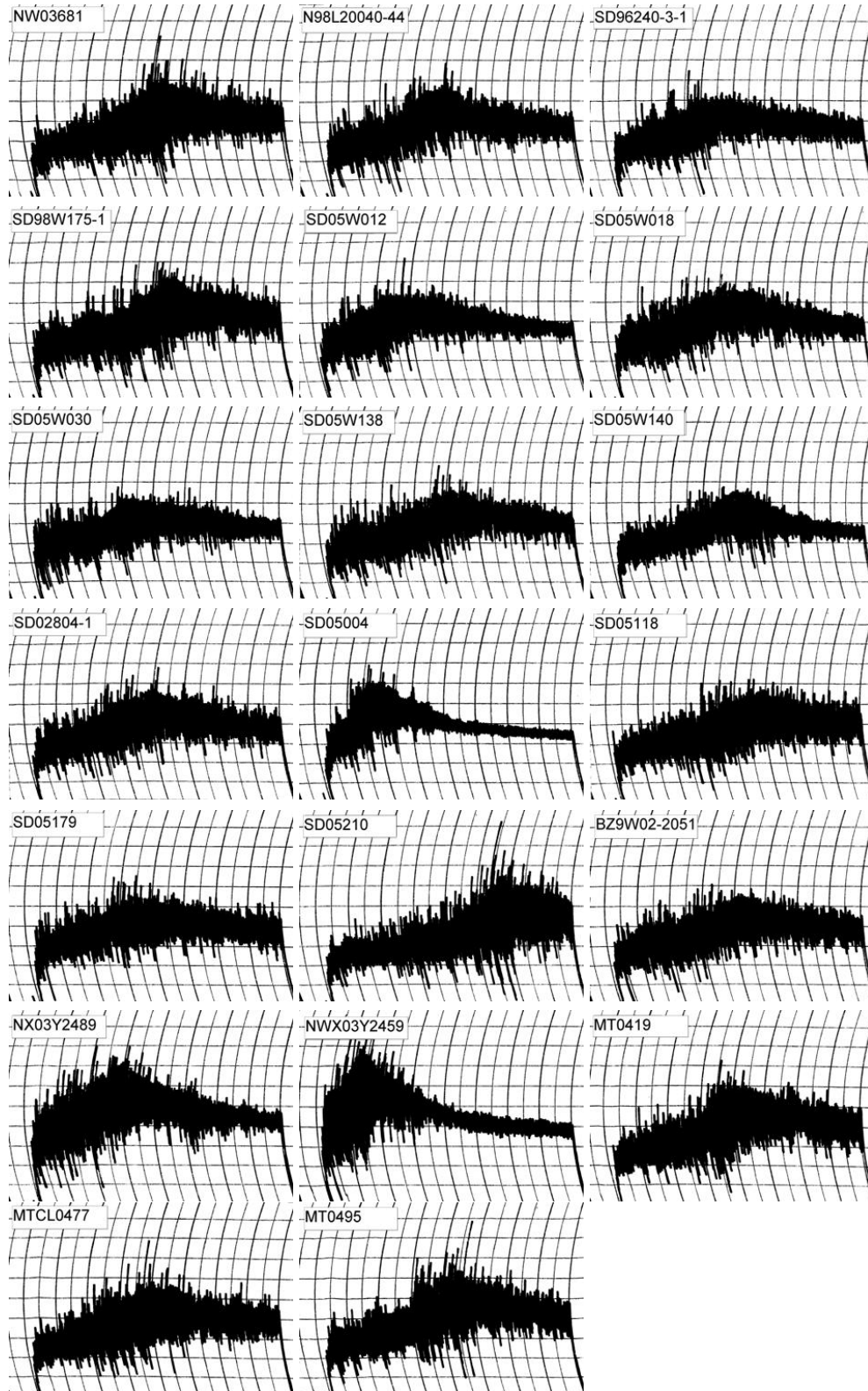
North Central Plains

Line	Flour Protein (%)	Mixograph			
		Absorption (%)	As-Is (min)	Corrected (min)	Tolerance
Kharkof	12.8	64.3	3.63	3.63	4
Harding	12.7	64.1	3.50	3.50	4
Nuplains	12.0	62.9	3.25	3.24	3
Wesley	12.6	62.9	5.13	5.13	5
Jerry	12.4	63.7	4.38	4.38	4
98x0435-15	12.6	63.0	7.50	7.50	6
BC98334-04\$-02\$	11.6	62.2	3.00	2.85	2
BC98334-10W-8W	12.3	63.5	3.38	3.38	3
HV9W98A-1002R	11.8	62.6	4.38	4.26	4
HV9W02-846R	11.8	62.6	4.38	4.26	4
Millennium-27, ALS-1	11.6	62.3	3.75	3.58	4
NE03458	11.4	61.9	3.63	3.37	4
NE04490	11.8	62.6	3.88	3.78	4
NE04537	11.9	62.7	5.13	5.04	5
NH03614	11.4	61.0	5.00	4.66	5
NI05711	12.3	63.5	5.13	5.13	5
NI05714	12.0	62.9	5.00	5.00	5
NI05720W	12.9	63.4	4.88	4.88	5
NW03681	12.4	63.6	4.50	4.50	5
N98L20040-44	11.9	62.8	4.00	3.97	4
SD96240-3-1	12.2	63.2	3.50	3.50	2
SD98W175-1	13.1	64.8	4.63	4.63	5
SD05W012	12.0	62.9	2.63	2.62	1
SD05W018	11.9	61.3	3.63	3.59	2
SD05W030	11.6	62.2	3.50	3.31	2
SD05W138	12.2	61.3	4.25	4.25	3
SD05W140	13.1	61.7	4.00	4.00	1
SD02804-1	12.4	63.7	4.00	4.00	4
SD05004	12.8	63.3	1.78	1.78	0
SD05118	12.3	63.4	5.00	5.00	5
SD05179	11.8	62.6	3.63	3.54	4
SD05210	12.7	63.2	6.00	6.00	6
BZ9W02-2051	11.7	62.4	4.13	3.97	4
NX03Y2489	12.4	65.1	3.00	3.00	1
NWX03Y2459	13.0	64.6	1.38	1.38	1
MT0419	12.8	64.2	4.00	4.00	4
MTCL0477	12.6	63.9	4.25	4.25	4
MT0495	13.6	65.7	4.50	4.50	5

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Line	RVA							Pasting Temp (Deg. C)
	Stirring Number (RVU)	Peak Viscosity (RVU)	Trough Viscosity (RVU)	Breakdown (RVU)	Final Viscosity (RVU)	Set back (RVU)	Peak Time (min)	
Kharkof	140.17	240.42	154.25	86.17	274.67	120.42	6.33	
Harding	130.83	236.83	161.17	75.67	285.67	124.50	6.40	
Nuplains	124.67	219.75	144.08	75.67	281.83	137.75	6.13	
Wesley	123.50	215.58	134.83	80.75	264.17	129.33	6.13	
Jerry	127.17	217.58	145.25	72.33	274.08	128.83	6.20	
98x0435-15	122.33	217.75	145.58	72.17	275.83	130.25	6.20	
BC98334-04\$-02\$	108.50	240.08	151.25	88.83	281.58	130.33	6.20	
BC98334-10W-8W	110.42	181.33	95.42	85.92	196.83	101.42	5.87	
HV9W98A-1002R	115.33	204.33	110.75	93.58	217.58	106.83	6.00	
HV9W02-846R	154.75	241.25	168.42	72.83	293.17	124.75	6.40	
Millennium-27, ALS-1	127.75	218.33	142.67	75.67	271.33	128.67	6.13	
NE03458	128.42	250.00	158.75	91.25	293.75	135.00	6.20	
NE04490	107.00	220.83	151.75	69.08	290.83	139.08	6.20	
NE04537	122.25	186.17	119.17	67.00	239.75	120.58	6.00	
NH03614	123.08	212.75	140.08	72.67	273.42	133.33	6.13	
NI05711	96.92	202.75	121.75	81.00	238.58	116.83	6.00	
NI05714	134.42	199.25	116.92	82.33	226.58	109.67	6.20	
NI05720W	114.08	200.67	121.75	78.92	238.08	116.33	6.07	
NW03681	116.33	248.75	137.25	111.50	241.08	103.83	6.13	
N98L20040-44	96.42	207.17	124.33	82.83	239.17	114.83	6.07	
SD96240-3-1	125.75	224.42	145.42	79.00	271.00	125.58	6.20	
SD98W175-1	119.50	224.50	143.17	81.33	268.75	125.58	6.20	
SD05W012	117.92	196.42	119.75	76.67	236.83	117.08	6.13	
SD05W018	133.92	222.08	149.00	73.08	282.17	133.17	6.27	
SD05W030	136.08	219.67	149.83	69.83	283.92	134.08	6.27	
SD05W138	121.92	227.83	149.83	78.00	272.50	122.67	6.33	
SD05W140	116.92	212.50	137.75	74.75	255.58	117.83	6.27	
SD02804-1	129.25	224.92	153.00	71.92	284.33	131.33	6.27	
SD05004	147.08	216.58	154.08	62.50	269.75	115.67	6.47	
SD05118	127.67	223.50	150.67	72.83	277.83	127.17	6.27	
SD05179	124.83	229.17	142.42	86.75	267.08	124.67	6.27	
SD05210	118.25	214.67	140.33	74.33	261.67	121.33	6.20	
BZ9W02-2051	114.83	241.33	150.17	91.17	273.00	122.83	6.27	
NX03Y2489	46.33	53.25	7.25	46.00	12.00	4.75	3.13	
NWX03Y2459	98.25	128.67	32.50	96.17	45.25	12.75	3.60	
MT0419	96.75	212.92	131.00	81.92	247.58	116.58	6.13	
MTCL0477	127.50	209.42	149.08	60.33	280.58	131.50	6.20	
MT0495	111.75	195.00	120.33	74.67	247.25	126.92	6.07	

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Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	12.8	62.4	5.00	5.00	171.8	7.8	4.5	940	6.3	65
Harding	12.7	63.6	5.25	5.25	172.4	8.0	4.2	1055	7.1	78
Nuplains	12.0	61.5	3.75	3.74	170.8	7.6	4.5	900	6.1	67
Wesley	12.6	62.4	7.50	7.50	171.2	7.4	5.0	920	6.2	65
Jerry	12.4	63.0	6.13	6.13	172.4	7.5	5.0	925	6.2	66
98x0435-15	12.6	61.5	10.00	10.00	171.0	7.3	4.5	920	6.2	64
BC98334-04\$-02\$	11.6	60.6	3.63	3.45	170.6	7.1	4.5	835	5.7	62
BC98334-10W-8W	12.3	61.4	4.13	4.13	171.6	7.4	4.5	895	6.0	64
HV9W98A-1002R	11.8	60.4	6.00	5.83	170.4	7.5	5.0	975	6.6	77
HV9W02-846R	11.8	61.5	5.75	5.59	170.6	7.2	4.0	860	5.8	64
Millennium-27, ALS-1	11.6	62.2	5.13	4.89	171.5	7.4	5.0	895	6.0	69
NE03458	11.4	62.2	6.50	6.03	171.1	7.3	3.8	855	5.8	66
NE04490	11.8	62.1	4.38	4.27	171.4	7.7	3.2	915	6.2	70
NE04537	11.9	61.9	7.00	6.88	170.9	7.5	3.5	865	5.8	64
NH03614	11.4	62.1	7.50	6.99	171.5	7.4	4.0	865	5.8	67
NI05711	12.3	63.6	8.50	8.50	172.9	7.6	5.0	925	6.1	67
NI05714	12.0	62.5	6.88	6.87	171.6	7.6	2.8	895	6.0	66
NI05720W	12.9	63.3	6.63	6.63	171.9	7.8	5.0	1015	6.8	73
NW03681	12.4	63.6	7.25	7.25	173.8	7.5	4.0	930	6.1	67
N98L20040-44	11.9	62.9	5.50	5.46	171.7	7.9	4.5	945	6.3	72
SD96240-3-1	12.2	60.1	4.50	4.50	169.7	7.5	3.0	880	5.9	63
SD98W175-1	13.1	62.8	7.25	7.25	170.8	7.3	5.0	960	6.4	65
SD05W012	12.0	58.6	3.75	3.74	168.1	7.3	3.5	875	5.9	64
SD05W018	11.9	59.7	4.50	4.45	168.4	7.5	4.0	885	6.0	66
SD05W030	11.6	60.0	4.50	4.26	168.9	7.3	3.5	860	5.8	65
SD05W138	12.2	61.1	5.25	5.25	171.2	7.8	4.5	945	6.4	70
SD05W140	13.1	59.0	3.75	3.75	168.1	8.0	4.8	965	6.7	66
SD02804-1	12.4	62.3	5.00	5.00	171.1	7.6	5.0	930	6.3	67
SD05004	12.8	58.1	2.50	2.50	167.0	7.6	3.0	900	6.2	61
SD05118	12.3	62.2	6.75	6.75	170.3	7.4	4.5	900	6.1	65
SD05179	11.8	62.2	5.13	5.00	170.6	7.7	4.0	950	6.4	74
SD05210	12.7	62.3	7.50	7.50	169.5	7.5	4.0	985	6.7	70
BZ9W02-2051	11.7	62.5	5.13	4.93	171.1	7.5	4.8	905	6.1	70
NX03Y2489	12.4	63.8	4.38	4.38	172.4	7.9	0.0	1050	7.1	80
NWX03Y2459	13.0	63.0	2.75	2.75	172.6	7.7	0.0	920	6.2	62
MT0419	12.8	64.0	5.50	5.50	172.8	7.8	4.8	1015	6.9	73
MTCL0477	12.6	63.8	6.38	6.38	172.1	7.9	3.8	955	6.4	69
MT0495	13.6	64.6	5.88	5.88	173.2	8.3	5.0	1055	7.1	71



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1 - Test weight	10	11 - Flour protein	8
2 - SKCS kernel weight	8	12 - Bake absorption	15
3 - Kernel weight SD	8	13 - Mixograph absorption	5
4 - SKCS kernel diameter	8	14 - Bake mix time	10
5 - Kernel diameter SD	8	15 - Mixograph mix time	5
6 - SKCS hardness	10	16 - Mixograph tolerance	5
7 - Hardness SD	8	17 - Dough weight	
8 - Flour yield	30	18 - Proof height	2
9 - Flour ash	10	19 - Loaf volume	20
10 - Milling score		20 - Volume regression	5
		21 - Crumb grain	25

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
Kharkof	45.7	Very Poor	71.4	57.1	Very Good	88.6		8,10,
Harding	50.3	Very Poor	78.6	54.7	Good	84.9		3,8,
Nuplains	61.1	Good	95.5	50.5	Good	78.4		
Wesley	58.0	Average	90.7	57.3	Very Good	88.9		
Jerry	56.6	Poor	88.5	41.8	Average	64.9		
Hawken	60.1	Good	94.0	27.5	Very Poor	42.7		18,
BC98334-04\$-02\$	58.2	Average	91.0	34.1	Poor	52.9		11,16,21,
BC98334-10W-8W	61.3	Very Good	95.9	31.8	Very Poor	49.4		
HV9W98A-1002R	61.2	Very Good	95.7	39.8	Poor	61.8		2,4,18,
Winterhawk	62.9	Very Good	98.3	31.8	Poor	49.3		5,18,
Millennium-27, ALS-1	59.3	Good	92.7	48.7	Good	75.6		
NE03458	61.1	Good	95.6	49.3	Good	76.5		
NE04490	55.2	Poor	86.4	38.6	Poor	59.9		
NE04537	56.3	Poor	88.0	41.0	Average	63.6		2,4,
Compass	58.9	Average	92.1	52.0	Good	80.7		
NI05711	53.3	Very Poor	83.3	38.2	Poor	59.2		1,9,
NI05714	49.2	Very Poor	77.0	42.3	Average	65.7		9,
NI05720W	54.9	Poor	85.9	62.7	Very Good	97.4		
NW03681	62.0	Very Good	96.9	44.9	Average	69.8		3,
N98L20040-44	56.5	Poor	88.4	61.6	Very Good	95.5		1,
SD96240-3-1	50.2	Very Poor	78.5	30.0	Very Poor	46.5		1,16,20,
SD98W175-1	58.2	Average	90.9	40.8	Average	63.3		17,
SD05W012	49.5	Very Poor	77.5	20.9	Very Poor	32.4		3,12,16,17,21,
SD05W018	59.7	Good	93.3	38.7	Average	60.0		11,16,
SD05W030	60.0	Good	93.8	27.9	Very Poor	43.2		16,
SD05W138	54.0	Poor	84.4	54.3	Very Good	84.3		16,
SD05W140	57.7	Average	90.2	24.4	Very Poor	37.9		12,13,15,16,17,
SD02804-1	64.0	Very Good	100.0	44.5	Average	69.1		9,
SD05004	56.8	Poor	88.8	18.9	Very Poor	29.3		14,15,16,21,
SD05118	62.5	Very Good	97.7	35.7	Poor	55.5		

Quality scores and ratings are calculated directly from the relative trait weightings (printed at the top of the page) and are applicable only to the nursery selected.



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1 - Test weight	10	11 - Flour protein	8
2 - SKCS kernel weight	8	12 - Bake absorption	15
3 - Kernel weight SD	8	13 - Mixograph absorption	5
4 - SKCS kernel diameter	8	14 - Bake mix time	10
5 - Kernel diameter SD	8	15 - Mixograph mix time	5
6 - SKCS hardness	10	16 - Mixograph tolerance	5
7 - Hardness SD	8	17 - Dough weight	
8 - Flour yield	30	18 - Proof height	2
9 - Flour ash	10	19 - Loaf volume	20
10 - Milling score		20 - Volume regression	5
		21 - Crumb grain	25

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
SD05179	59.1	Good	92.3	36.6	Poor	56.8		5,18,21,
SD05210	58.8	Average	91.9	51.2	Good	79.4		
BZ9W02-2051	62.3	Very Good	97.5	51.6	Good	80.0		
NX03Y2489	45.0	Very Poor	70.4	50.9	Good	79.0		1,3,8,16,21,
NWX03Y2459	52.2	Very Poor	81.5	24.4	Very Poor	37.9		14,15,16,20,21,
MT0419	56.9	Poor	88.9	63.1	Very Good	97.9		10,
MTCL0477	59.8	Good	93.5	36.7	Poor	57.0		
MT0495	57.5	Average	89.9	64.4	Very Good	100.0		

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LINE	Wt/Bu (lb)	SKCS Average Kernel						Hardness			
		Moisture		Weight		Diameter		SKCS	Class	Distribution	
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)				
Kharkof	61.0	12.0	0.3	27.7	7.3	2.05	0.42	49	19	MIXED	021-026-022-031-03
Harding	60.7	12.0	0.4	30.8	9.4	2.22	0.47	65	18	HARD	005-010-018-067-01
Nuplains	63.0	11.5	0.4	30.1	8.2	2.20	0.44	62	17	HARD	005-013-023-059-01
Wesley	60.5	11.5	0.3	31.8	8.6	2.25	0.46	54	17	MIXED	011-021-027-041-03
Jerry	60.3	12.0	0.4	31.1	8.0	2.13	0.43	57	18	HARD	008-021-028-043-02
98x0435-15	61.6	11.5	0.3	31.4	8.9	2.27	0.45	63	17	HARD	004-012-025-059-01
BC98334-04\$-02\$	60.4	11.6	0.3	29.6	6.8	2.12	0.41	60	17	HARD	005-017-028-050-01
BC98334-10W-8W	61.4	11.3	0.4	32.9	8.2	2.25	0.42	58	16	HARD	006-015-033-046-02
HV9W98A-1002R	62.3	11.4	0.4	26.9	7.4	1.95	0.34	59	16	HARD	007-017-023-053-02
HV9W02-846R	62.0	11.8	0.3	33.8	8.0	2.39	0.50	62	15	HARD	003-013-025-059-01
Millennium-27, ALS-1	61.3	11.5	0.3	28.0	7.4	2.07	0.45	71	15	HARD	001-005-014-080-01
NE03458	60.9	10.8	0.6	30.5	7.6	2.24	0.41	62	15	HARD	003-012-027-058-01
NE04490	60.2	10.4	0.8	28.2	7.4	2.13	0.44	64	16	HARD	003-011-026-060-01
NE04537	60.5	10.6	0.7	26.0	8.3	2.02	0.43	72	17	HARD	002-005-017-076-01
NH03614	60.6	10.7	0.7	29.4	8.0	2.13	0.41	65	16	HARD	004-010-021-065-01
NI05711	58.9	10.4	0.8	29.6	7.7	2.15	0.42	62	15	HARD	003-010-028-059-01
NI05714	59.7	10.7	0.7	29.2	7.8	2.14	0.44	70	23	HARD	007-011-015-067-02
NI05720W	59.9	10.8	0.6	29.3	8.4	2.21	0.45	63	16	HARD	002-013-024-061-01
NW03681	62.4	10.8	0.6	34.0	9.5	2.41	0.47	65	16	HARD	003-010-023-064-01
N98L20040-44	58.5	10.6	0.7	30.3	8.1	2.21	0.48	61	16	HARD	006-010-024-060-02
SD96240-3-1	58.3	10.4	0.6	28.2	8.6	2.09	0.47	63	15	HARD	002-013-026-059-01
SD98W175-1	62.1	10.9	0.6	29.9	8.5	2.23	0.45	69	16	HARD	002-008-012-078-01
SD05W012	59.5	11.4	0.6	32.0	9.7	2.15	0.46	57	18	HARD	009-020-023-048-02
SD05W018	62.1	11.1	0.5	31.1	7.3	2.18	0.47	64	17	HARD	004-012-022-062-01
SD05W030	61.5	11.2	0.5	31.4	7.8	2.24	0.45	67	14	HARD	002-006-023-069-01
SD05W138	62.1	11.1	0.5	28.8	8.6	2.06	0.42	63	17	HARD	004-010-024-062-01
SD05W140	61.9	11.1	0.7	32.2	8.6	2.35	0.46	67	16	HARD	003-005-025-067-01
SD02804-1	61.2	11.2	0.6	33.3	8.5	2.34	0.48	72	14	HARD	000-004-013-083-01
SD05004	61.0	10.9	0.6	29.6	9.0	2.14	0.48	63	17	HARD	006-009-025-060-02
SD05118	60.7	10.6	0.7	32.0	7.5	2.33	0.47	69	15	HARD	001-007-015-077-01
SD05179	61.5	10.8	0.6	33.1	8.8	2.30	0.51	68	15	HARD	002-004-018-076-01
SD05210	60.2	10.8	0.7	29.1	6.4	2.15	0.38	68	16	HARD	001-005-022-072-01
BZ9W02-2051	61.5	10.8	0.7	30.8	8.3	2.26	0.40	68	16	HARD	001-007-017-075-01
NX03Y2489	58.7	10.7	0.6	30.9	9.5	2.19	0.46	60	18	HARD	009-012-028-051-02
NWX03Y2459	61.2	10.4	0.7	29.1	8.2	2.20	0.44	54	17	MIXED	011-018-031-040-03
MT0419	60.0	10.7	0.5	28.5	8.1	2.11	0.45	68	15	HARD	002-007-016-075-01
MTCL0477	59.6	10.7	0.6	30.6	7.6	2.21	0.45	60	15	HARD	004-013-028-055-01
MT0495	59.6	10.6	0.6	28.7	7.3	2.22	0.43	70	16	HARD	003-004-013-080-01

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LINE	Wheat		Flour			Noodle Color					
	Protein	Milling Yield	Ash	Protein	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
	(%)	(%)	(%)	(%)							
Kharkof	14.3	67.3	0.48	13.3	0.490	80.39	-2.54	23.91	-12.66	1.49	1.18
Harding	12.9	68.7	0.45	11.9	0.476	81.01	-2.61	24.89	-11.70	1.31	1.22
Nuplains	12.3	72.3	0.42	11.4	0.505	82.05	-2.59	23.30	-11.28	1.27	2.42
Wesley	12.4	72.6	0.42	11.7	0.547	81.54	-2.57	22.67	-10.55	1.37	1.84
Jerry	12.9	72.2	0.45	12.0	0.499	81.74	-2.12	22.25	-12.68	1.17	4.39
98x0435-15	11.8	72.3	0.41	11.0	0.451	80.66	-2.50	22.96	-11.04	1.39	3.08
BC98334-04\$-02\$	11.6	71.1	0.41	10.5	0.668	82.43	-2.61	22.66	-10.73	1.41	2.80
BC98334-10W-8W	13.1	72.3	0.42	12.1	0.657	82.70	-2.21	21.63	-12.25	1.38	3.82
HV9W98A-1002R	12.3	72.8	0.41	11.5	0.611	82.34	-2.36	21.88	-10.33	1.15	3.62
HV9W02-846R	11.6	72.1	0.41	10.6	0.390	81.60	-2.40	23.73	-10.71	1.04	3.49
Millennium-27, ALS-1	12.7	71.7	0.47	11.4	0.468	81.03	-2.25	21.96	-12.86	1.58	2.97
NE03458	12.0	72.3	0.45	11.2	0.519	77.49	-2.13	21.05	-12.34	1.99	3.24
NE04490	12.9	70.3	0.44	11.7	0.687	78.43	-1.86	20.80	-12.82	1.68	4.13
NE04537	12.5	72.2	0.46	11.6	0.540	79.77	-2.47	23.42	-11.76	2.37	0.86
NH03614	12.5	72.0	0.44	11.7	0.573	81.85	-1.92	20.96	-13.14	1.41	4.29
NI05711	12.2	70.0	0.51	11.6	0.572	81.52	-2.54	24.24	-13.29	2.21	2.57
NI05714	12.7	70.0	0.51	11.9	0.553	81.78	-2.68	24.03	-12.88	1.62	0.95
NI05720W	12.7	70.6	0.45	11.8	0.496	82.09	-2.83	23.43	-14.22	2.13	3.01
NW03681	13.0	73.5	0.50	12.3	0.561	81.78	-2.35	21.63	-11.96	0.80	4.22
N98L20040-44	11.5	72.1	0.42	10.7	0.517	81.89	-2.25	22.51	-14.62	1.82	3.29
SD96240-3-1	13.4	69.5	0.45	12.7	0.498	79.08	-2.28	25.44	-13.19	1.71	0.49
SD98W175-1	12.5	71.3	0.48	11.9	0.434	82.04	-2.63	23.70	-11.71	1.16	3.63
SD05W012	11.7	70.4	0.50	11.1	0.423	81.94	-3.02	25.42	-11.65	1.65	2.33
SD05W018	11.6	72.0	0.46	10.5	0.496	83.17	-2.96	25.05	-11.31	0.98	3.71
SD05W030	12.2	71.1	0.46	11.1	0.331	83.23	-2.78	23.62	-10.83	0.80	4.87
SD05W138	13.3	70.4	0.49	12.4	0.677	82.50	-2.89	25.56	-12.27	1.00	3.14
SD05W140	12.7	70.6	0.49	11.8	0.531	81.53	-2.58	23.58	-12.30	1.35	1.30
SD02804-1	12.1	73.9	0.50	11.5	0.168	81.67	-2.66	23.24	-11.86	1.23	4.54
SD05004	12.4	72.5	0.44	11.7	0.566	81.23	-2.90	27.19	-13.62	1.81	0.36
SD05118	12.6	72.9	0.47	11.5	0.566	81.60	-2.06	22.44	-12.06	1.26	4.32
SD05179	11.5	71.5	0.47	10.7	0.562	82.22	-2.77	25.25	-12.51	1.55	3.58
SD05210	11.6	70.8	0.49	11.2	0.532	81.28	-2.26	22.63	-13.36	1.41	2.64
BZ9W02-2051	12.4	73.2	0.48	11.2	0.491	81.38	-2.15	21.76	-14.52	1.53	3.55
NX03Y2489	12.3	67.2	0.48	12.7	0.359	83.58	-2.10	19.93	-15.81	1.53	3.25
NWX03Y2459	13.8	69.4	0.45	13.4	0.607	84.02	-2.52	21.31	-14.15	1.39	3.61
MT0419	14.2	71.4	0.45	11.1	0.618	81.25	-2.27	23.26	-12.50	1.72	3.51
MTCL0477	11.5	72.6	0.44	10.7	0.491	81.77	-2.08	22.94	-12.14	1.52	4.54
MT0495	12.5	70.4	0.44	11.9	0.182	81.40	-2.34	24.92	-10.16	1.27	4.12

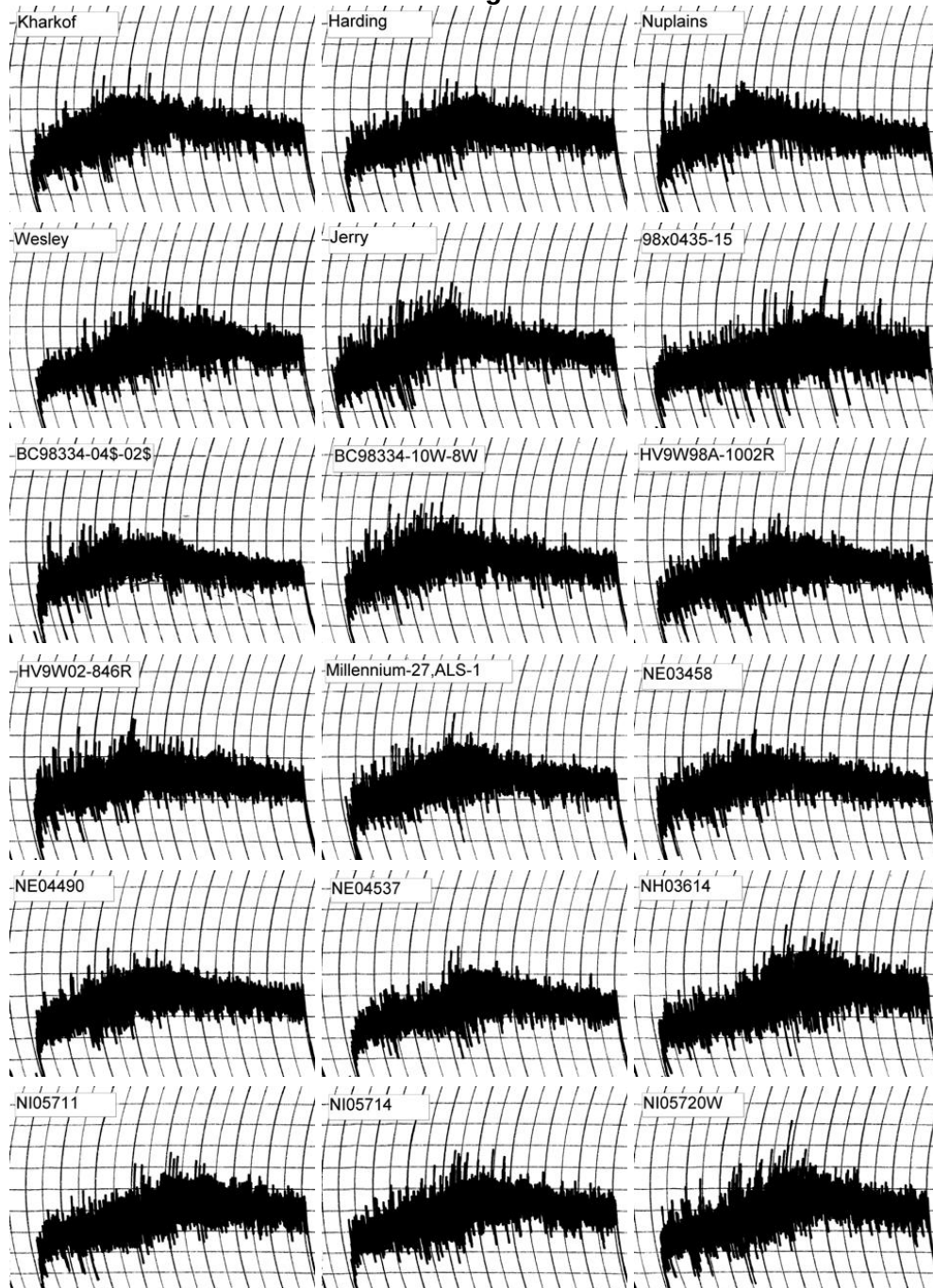
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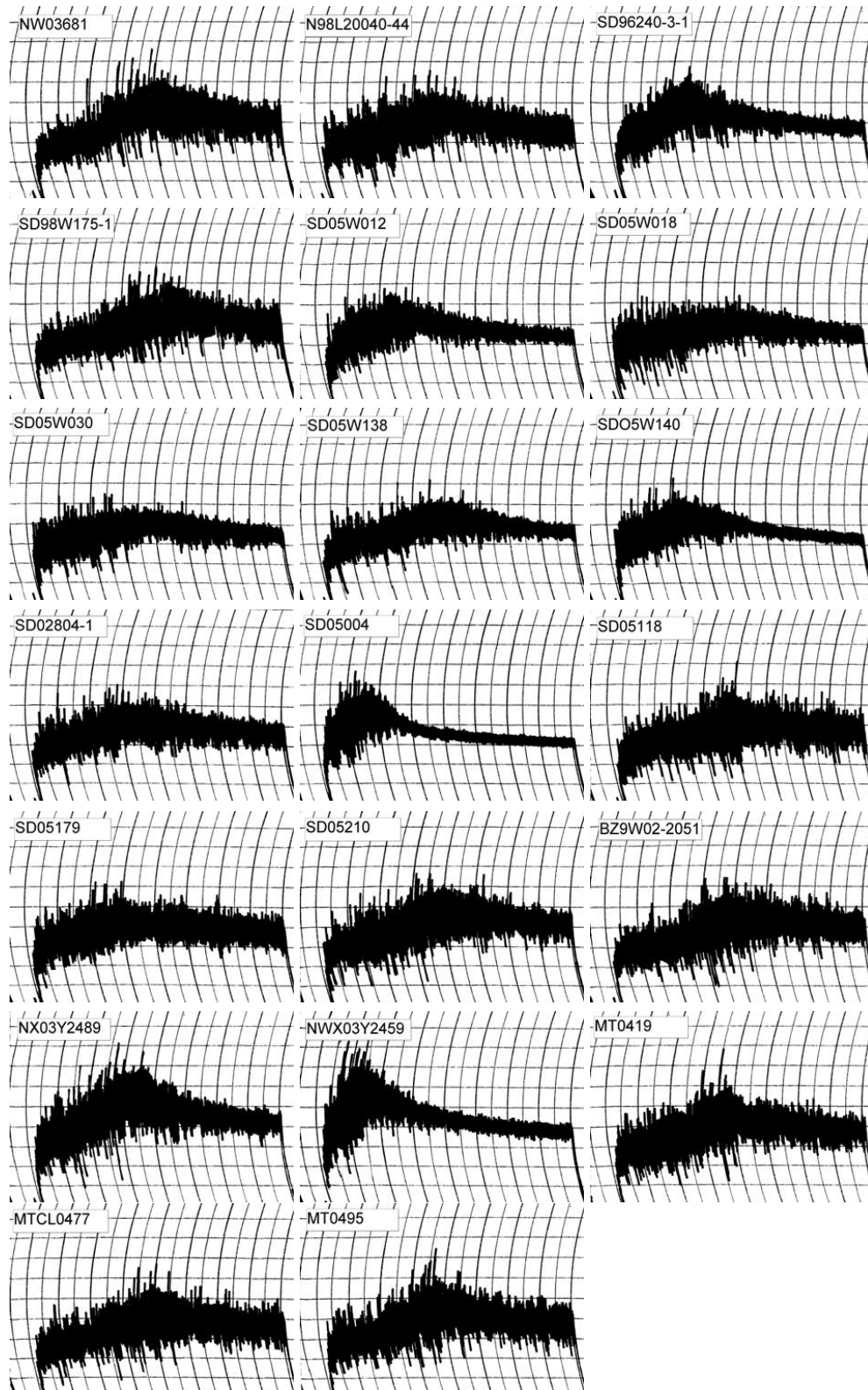
	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	13.3	64.1	3.38	3.38	3
Harding	11.9	62.8	3.88	3.85	4
Nuplains	11.4	62.0	2.88	2.69	3
Wesley	11.7	62.5	3.75	3.63	3
Jerry	12.0	62.9	3.50	3.49	4
98x0435-15	11.0	61.3	4.88	4.31	5
BC98334-04\$-02\$	10.5	60.4	3.25	2.65	2
BC98334-10W-8W	12.1	63.2	2.88	2.88	3
HV9W98A-1002R	11.5	62.1	3.75	3.54	4
HV9W02-846R	10.6	60.6	3.25	2.71	4
Millennium-27, ALS-1	11.4	60.5	3.50	3.26	4
NE03458	11.2	61.6	3.25	2.94	4
NE04490	11.7	62.4	3.50	3.37	3
NE04537	11.6	62.3	3.88	3.70	3
NH03614	11.7	62.4	4.88	4.68	5
NI05711	11.6	62.2	4.63	4.39	5
NI05714	11.9	62.9	4.13	4.10	4
NI05720W	11.8	62.6	4.38	4.29	4
NW03681	12.3	63.4	4.25	4.25	5
N98L20040-44	10.7	60.8	3.75	3.18	4
SD96240-3-1	12.7	62.6	2.50	2.50	1
SD98W175-1	11.9	62.7	4.50	4.43	5
SD05W012	11.1	61.5	2.38	2.13	1
SD05W018	10.5	60.4	3.88	3.17	2
SD05W030	11.1	61.4	3.38	3.00	2
SD05W138	12.4	61.6	4.00	4.00	1
SD05W140	11.8	60.1	2.25	2.19	0
SD02804-1	11.5	62.1	3.25	3.05	3
SD05004	11.7	62.4	1.50	1.45	0
SD05118	11.5	62.2	4.00	3.78	4
SD05179	10.7	60.8	3.00	2.54	3
SD05210	11.2	61.7	4.00	3.63	4
BZ9W02-2051	11.2	61.5	4.25	3.82	4
NX03Y2489	12.7	66.7	3.38	3.38	2
NWX03Y2459	13.4	65.2	1.25	1.25	0
MT0419	11.1	61.5	3.88	3.48	4
MTCL0477	10.7	60.8	4.00	3.39	4
MT0495	11.9	62.7	3.63	3.58	4

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Line	RVA							Pasting Temp (Deg. C)
	Stirring Number (RVU)	Peak Viscosity (RVU)	Trough Viscosity (RVU)	Breakdown (RVU)	Final Viscosity (RVU)	Set back (RVU)	Peak Time (min)	
Kharkof	149.33	236.42	179.08	57.33	298.25	119.17	6.60	
Harding	172.42	234.00	185.50	48.50	315.83	130.33	6.53	
Nuplains	169.17	217.08	177.83	39.25	304.67	126.83	6.60	
Wesley	140.42	211.92	160.25	51.67	288.75	128.50	6.40	
Jerry	149.08	201.75	162.67	39.08	285.08	122.42	6.47	
98x0435-15	142.50	214.42	164.17	50.25	291.58	127.42	6.40	
BC98334-04\$-02\$	149.08	235.58	175.92	59.67	307.00	131.08	6.40	
BC98334-10W-8W	138.92	229.67	166.58	63.08	298.08	131.50	6.40	
HV9W98A-1002R	132.17	254.75	180.33	74.42	307.00	126.67	6.47	
HV9W02-846R	155.92	237.50	193.33	44.17	314.33	121.00	6.67	
Millennium-27, ALS-1	144.17	197.83	157.00	40.83	278.17	121.17	6.40	
NE03458	148.00	225.08	178.42	46.67	302.33	123.92	6.47	
NE04490	161.50	210.08	164.83	45.25	295.58	130.75	6.40	
NE04537	115.83	189.42	141.08	48.33	267.58	126.50	6.20	
NH03614	144.67	210.08	163.92	46.17	298.67	134.75	6.33	
NI05711	138.08	206.67	156.67	50.00	276.08	119.42	6.47	
NI05714	160.58	221.00	168.75	52.25	287.00	118.25	6.53	
NI05720W	140.50	230.00	175.58	54.42	304.67	129.08	6.47	
NW03681	141.00	247.00	165.25	81.75	273.50	108.25	6.40	
N98L20040-44	128.58	208.00	146.42	61.58	257.67	111.25	6.33	
SD96240-3-1	159.50	225.83	172.75	53.08	289.92	117.17	6.60	
SD98W175-1	156.50	226.67	167.33	59.33	285.17	117.83	6.53	
SD05W012	150.67	214.67	171.17	43.50	293.58	122.42	6.60	
SD05W018	159.75	224.58	178.42	46.17	308.67	130.25	6.53	
SD05W030	163.08	220.00	169.08	50.92	293.17	124.08	6.47	
SD05W138	154.83	238.17	187.08	51.08	314.83	127.75	6.60	
SD05W140	155.58	206.00	157.75	48.25	274.33	116.58	6.47	
SD02804-1	157.75	202.83	161.83	41.00	288.08	126.25	6.40	
SD05004	168.42	205.50	162.67	42.83	272.83	110.17	6.60	
SD05118	180.25	217.83	175.83	42.00	295.75	119.92	6.60	
SD05179	144.67	217.17	160.67	56.50	277.58	116.92	6.47	
SD05210	68.17	169.92	116.25	53.67	191.58	75.33	6.27	
BZ9W02-2051	130.75	237.42	172.92	64.50	289.67	116.75	6.53	
NX03Y2489	104.17	165.17	86.67	78.50	140.92	54.25	4.13	
NWX03Y2459	129.08	219.83	161.08	58.75	283.00	121.92	6.40	
MT0419	135.08	217.67	158.42	59.25	281.25	122.83	6.40	
MTCL0477	168.42	198.67	165.00	33.67	288.33	123.33	6.53	
MT0495	136.50	196.17	144.83	51.33	267.42	122.58	6.33	

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Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	13.3	60.8	4.25	4.25	169.7	7.9	4.0	930	6.3	61
Harding	11.9	62.4	5.00	4.96	171.4	7.6	3.0	930	6.3	70
Nuplains	11.4	60.2	3.25	3.03	169.3	7.2	5.0	860	5.8	66
Wesley	11.7	61.3	4.75	4.59	170.0	7.3	4.0	920	6.2	71
Jerry	12.0	63.0	4.25	4.24	172.1	7.6	4.8	890	5.9	66
98x0435-15	11.0	62.3	7.00	6.18	170.6	6.9	2.8	795	5.3	61
BC98334-04\$-02\$	10.5	60.2	4.25	3.46	168.5	7.0	2.0	795	5.3	66
BC98334-10W-8W	12.1	60.0	3.50	3.50	168.7	7.3	3.8	855	5.7	61
HV9W98A-1002R	11.5	62.0	5.13	4.84	171.0	6.8	4.5	865	5.7	66
HV9W02-846R	10.6	62.1	4.00	3.33	171.6	6.9	3.5	790	5.3	64
Millennium-27, ALS-1	11.4	61.5	4.50	4.19	170.5	7.3	3.0	860	5.7	66
NE03458	11.2	60.8	4.25	3.84	169.4	7.2	4.0	820	5.5	63
NE04490	11.7	62.6	4.13	3.98	171.7	7.6	3.5	870	5.8	65
NE04537	11.6	61.9	5.13	4.90	171.3	7.6	3.2	895	6.0	69
NH03614	11.7	62.7	6.50	6.23	171.7	7.7	4.0	900	6.1	69
NI05711	11.6	62.1	5.88	5.58	171.0	7.5	3.8	885	6.0	68
NI05714	11.9	62.7	5.25	5.22	172.1	7.5	2.2	900	6.0	67
NI05720W	11.8	62.7	5.50	5.38	171.9	7.6	5.0	935	6.3	72
NW03681	12.3	61.7	4.75	4.75	171.0	7.4	5.5	930	6.3	68
N98L20040-44	10.7	60.8	5.00	4.25	169.7	7.7	5.0	900	6.2	77
SD96240-3-1	12.7	58.9	4.00	4.00	170.6	7.6	2.5	850	5.8	57
SD98W175-1	11.9	61.7	5.50	5.42	167.1	7.2	4.8	910	6.2	69
SD05W012	11.1	57.4	3.00	2.68	167.2	7.1	1.8	795	5.5	61
SD05W018	10.5	60.0	3.75	3.06	169.1	7.3	3.0	800	5.4	66
SD05W030	11.1	58.8	3.38	3.00	168.9	7.3	3.5	820	5.6	64
SD05W138	12.4	59.0	3.75	3.75	169.5	7.5	5.0	910	6.2	65
SD05W140	11.8	57.9	3.00	2.93	166.6	7.4	3.5	875	6.1	65
SD02804-1	11.5	60.6	3.38	3.18	170.1	7.4	3.0	885	6.0	69
SD05004	11.7	58.8	1.88	1.81	168.3	7.2	1.8	830	5.6	61
SD05118	11.5	62.0	5.75	5.43	170.9	7.2	4.5	835	5.5	63
SD05179	10.7	61.1	4.25	3.60	174.5	6.9	2.0	815	5.5	66
SD05210	11.2	63.0	5.75	5.22	171.8	7.4	3.0	915	6.1	74
BZ9W02-2051	11.2	63.7	5.50	4.94	173.1	7.3	4.0	820	5.4	63
NX03Y2489	12.7	64.9	3.75	3.75	174.1	7.6	0.0	1060	7.0	78
NWX03Y2459	13.4	61.1	2.50	2.50	178.7	7.5	0.0	825	5.5	51
MT0419	11.1	63.1	5.13	4.60	172.2	7.6	5.0	905	6.0	74
MTCL0477	10.7	63.1	4.75	4.02	172.1	7.1	4.5	805	5.3	65
MT0495	11.9	63.2	4.63	4.56	172.4	7.2	5.0	915	6.1	69



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1 - Test weight	10	11 - Flour protein	8
2 - SKCS kernel weight	8	12 - Bake absorption	15
3 - Kernel weight SD	8	13 - Mixograph absorption	5
4 - SKCS kernel diameter	8	14 - Bake mix time	10
5 - Kernel diameter SD	8	15 - Mixograph mix time	5
6 - SKCS hardness	10	16 - Mixograph tolerance	5
7 - Hardness SD	8	17 - Dough weight	
8 - Flour yield	30	18 - Proof height	2
9 - Flour ash	10	19 - Loaf volume	20
10 - Milling score		20 - Volume regression	5
		21 - Crumb grain	25

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
Kharkof	47.4	Very Poor	76.7	56.8	Very Good	92.5		8,10,20,
Harding	50.5	Very Poor	81.7	34.9	Poor	56.9		8,16,
Nuplains	58.6	Very Good	94.8	50.3	Good	81.9		16,
Wesley	55.8	Poor	90.3	60.5	Very Good	98.5		
Jerry	52.7	Poor	85.2	37.5	Poor	61.1		
Hawken	57.6	Good	93.2	29.0	Very Poor	47.2		14,15,
BC98334-04\$-02\$	56.2	Average	90.9	28.6	Very Poor	46.6		16,18,19,
BC98334-10W-8W	56.3	Average	91.1	44.0	Good	71.7		16,
HV9W98A-1002R	57.4	Good	92.9	40.2	Poor	65.5		2,4,16,
Winterhawk	56.2	Average	90.9	53.8	Good	87.6		5,11,18,
Millennium-27, ALS-1	60.3	Very Good	97.6	57.6	Very Good	93.8		
NE03458	54.8	Poor	88.6	32.7	Very Poor	53.3		11,
NE04490	56.2	Average	91.0	46.7	Good	76.0		
NE04537	49.5	Very Poor	80.1	42.6	Average	69.4		1,12,13,16,17,
Compass	57.8	Good	93.6	28.7	Very Poor	46.7		11,12,17,
NI05711	52.9	Poor	85.6	49.1	Good	80.0		3,
NI05714	57.2	Good	92.6	40.7	Poor	66.3		9,10,
NI05720W	55.1	Poor	89.1	61.4	Very Good	100.0		
NW03681	61.8	Very Good	100.0	45.6	Average	74.2		9,
N98L20040-44	53.8	Poor	87.1	58.5	Very Good	95.2		11,16,
SD96240-3-1	56.1	Average	90.7	26.4	Very Poor	43.0		12,16,17,20,
SD98W175-1	55.6	Poor	90.0	45.4	Good	73.9		9,10,
SD05W012	50.7	Very Poor	82.0	33.7	Poor	54.9		15,16,
SD05W018	56.2	Good	90.9	40.6	Average	66.1		16,
SD05W030	58.5	Very Good	94.7	39.5	Average	64.3		16,
SD05W138	51.2	Very Poor	82.9	35.9	Poor	58.4		2,4,13,
SD05W140	56.8	Good	91.8	40.7	Average	66.2		12,16,
SD02804-1	56.0	Average	90.6	36.0	Poor	58.6		
SD05004	57.4	Good	92.9	22.9	Very Poor	37.2		12,14,15,16,18,20,21,
SD05118	56.1	Average	90.7	53.3	Good	86.8		

Quality scores and ratings are calculated directly from the relative trait weightings (printed at the top of the page) and are applicable only to the nursery selected.



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1 - Test weight	10	11 - Flour protein	8
2 - SKCS kernel weight	8	12 - Bake absorption	15
3 - Kernel weight SD	8	13 - Mixograph absorption	5
4 - SKCS kernel diameter	8	14 - Bake mix time	10
5 - Kernel diameter SD	8	15 - Mixograph mix time	5
6 - SKCS hardness	10	16 - Mixograph tolerance	5
7 - Hardness SD	8	17 - Dough weight	
8 - Flour yield	30	18 - Proof height	2
9 - Flour ash	10	19 - Loaf volume	20
10 - Milling score		20 - Volume regression	5
		21 - Crumb grain	25

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
SD05179	58.4	Very Good	94.4	33.6	Very Poor	54.7		16,
SD05210	61.5	Very Good	99.4	55.8	Very Good	90.9		14,15,
BZ9W02-2051	58.2	Very Good	94.2	49.4	Good	80.5		
NX03Y2489	47.2	Very Poor	76.4	40.3	Average	65.6		8,16,21,
NWX03Y2459	51.7	Very Poor	83.6	26.0	Very Poor	42.3		8,14,15,16,21,
MT0419	57.2	Good	92.6	43.2	Average	70.3		
MTCL0477	51.7	Very Poor	83.7	36.4	Poor	59.3		
MT0495	53.7	Poor	86.8	58.0	Very Good	94.5		

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LINE	Wt/Bu (lb)	SKCS Average Kernel						Hardness			
		Moisture		Weight		Diameter		SKCS	Class	Distribution	
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)				
Kharkof	61.0	10.6	0.7	30.4	7.9	2.20	0.44	46	22	"MIXED	'029-023-019-029-03'
Harding	60.6	10.1	0.7	33.3	9.7	2.40	0.53	66	19	"HARD	'006-008-017-069-02'
Nuplains	62.2	10.1	0.8	29.3	8.7	2.21	0.48	67	16	"HARD	'003-006-023-068-01'
Wesley	60.6	10.1	0.8	33.7	9.9	2.41	0.56	57	17	"HARD	'008-018-025-049-02'
Jerry	59.1	10.7	0.8	31.2	9.4	2.18	0.52	57	18	"HARD	'010-015-028-047-02'
98x0435-15	61.5	10.4	0.9	31.3	9.4	2.39	0.54	66	17	"HARD	'004-009-019-068-01'
BC98334-04\$-02\$	61.0	10.0	0.7	32.1	8.4	2.28	0.48	58	18	"HARD	'010-016-022-052-02'
BC98334-10W-8W	61.4	9.3	0.8	34.2	9.2	2.40	0.53	59	17	"HARD	'008-017-025-050-02'
HV9W98A-1002R	62.2	9.4	1.0	26.9	8.3	2.05	0.46	66	19	"HARD	'004-014-019-063-01'
HV9W02-846R	62.0	9.2	0.7	33.2	9.4	2.42	0.66	63	16	"HARD	'004-010-023-063-01'
Millennium-27, ALS-1	62.3	9.8	0.5	31.2	8.1	2.28	0.47	66	16	"HARD	'003-010-018-069-01'
NE03458	60.4	9.9	0.7	32.0	10.0	2.37	0.58	59	17	"HARD	'009-013-022-056-02'
NE04490	61.9	9.5	0.5	32.3	8.7	2.31	0.51	58	18	"HARD	'008-017-026-049-02'
NE04537	50.9	9.4	0.5	29.3	9.2	2.21	0.52	70	18	"HARD	'002-008-018-072-01'
NH03614	61.4	9.7	0.6	34.2	9.2	2.38	0.56	59	18	"HARD	'008-017-023-052-02'
NI05711	59.7	9.3	0.6	35.4	10.5	2.41	0.57	53	18	"MIXED	'015-019-027-039-03'
NI05714	61.0	10.0	0.6	31.2	8.0	2.30	0.46	75	17	"HARD	'002-002-011-085-01'
NI05720W	61.1	8.6	0.4	31.1	9.1	2.28	0.50	61	18	"HARD	'007-012-023-058-02'
NW03681	63.0	10.0	0.5	34.8	9.7	2.47	0.51	70	17	"HARD	'002-008-014-076-01'
N98L20040-44	58.0	10.2	0.5	30.5	9.5	2.17	0.54	60	17	"HARD	'006-016-024-054-02'
SD96240-3-1	59.5	10.4	0.7	32.6	8.9	2.34	0.52	63	17	"HARD	'004-011-025-060-01'
SD98W175-1	61.1	10.6	0.8	31.4	9.8	2.33	0.57	67	16	"HARD	'003-007-021-069-01'
SD05W012	59.3	10.1	0.8	33.4	8.9	2.25	0.49	58	18	"HARD	'009-017-024-050-02'
SD05W018	61.3	9.8	0.8	31.0	8.5	2.19	0.50	63	18	"HARD	'007-012-019-062-02'
SD05W030	62.0	9.9	0.8	31.7	7.7	2.26	0.50	66	16	"HARD	'003-006-024-067-01'
SD05W138	61.3	10.0	0.9	27.8	8.5	2.08	0.43	66	20	"HARD	'005-011-021-063-01'
SD05W140	61.5	9.8	0.8	31.2	8.6	2.29	0.43	65	18	"HARD	'004-011-017-068-01'
SD02804-1	60.3	9.9	0.7	30.3	9.0	2.16	0.53	71	17	"HARD	'002-005-016-077-01'
SD05004	60.6	9.7	0.7	29.3	8.8	2.17	0.52	65	15	"HARD	'003-008-024-065-01'
SD05118	60.4	9.7	0.8	32.8	9.4	2.40	0.58	68	17	"HARD	'002-009-018-071-01'
SD05179	61.5	9.8	0.8	35.0	9.6	2.41	0.58	68	16	"HARD	'002-006-018-074-01'
SD05210	60.7	9.7	0.8	32.2	8.4	2.29	0.47	66	17	"HARD	'004-010-018-068-01'
BZ9W02-2051	61.3	10.1	0.8	31.8	9.4	2.28	0.48	63	17	"HARD	'004-010-022-064-01'
NX03Y2489	59.0	10.0	0.8	30.0	8.6	2.19	0.46	67	17	"HARD	'002-008-022-068-01'
NWX03Y2459	60.7	10.0	0.9	30.8	8.7	2.28	0.46	56	18	"HARD	'009-022-029-040-02'
MT0419	59.8	10.1	0.9	30.6	8.9	2.24	0.51	68	16	"HARD	'002-008-022-068-01'
MTCL0477	58.3	10.0	0.9	30.1	9.7	2.18	0.57	61	17	"HARD	'004-014-026-056-01'
MT0495	58.1	9.9	0.8	29.1	8.1	2.21	0.51	68	16	"HARD	'002-007-019-072-01'

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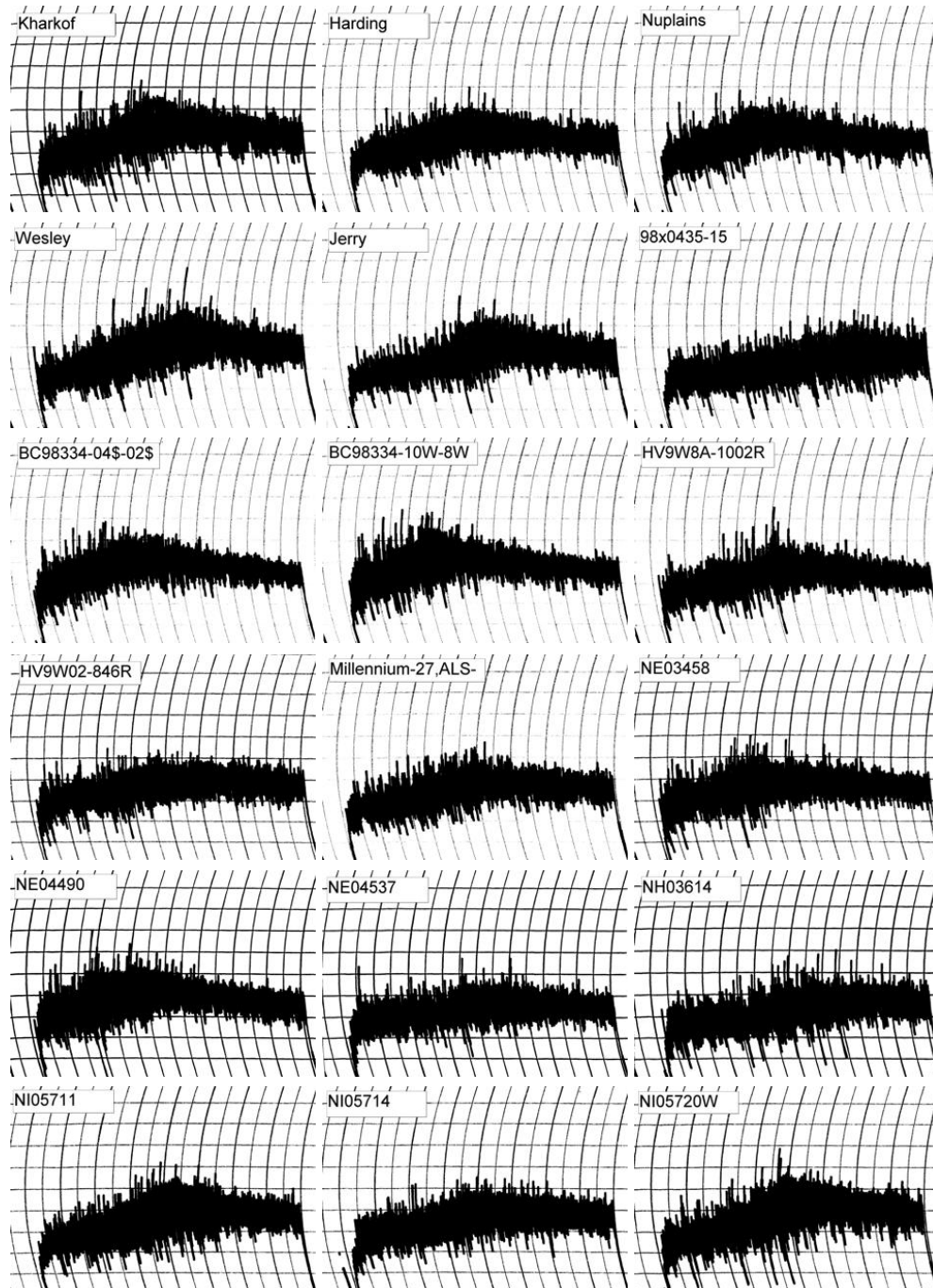
LINE	Wheat		Flour			Noodle Color					
	Protein	Milling Yield	Ash	Protein	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
	(%)	(%)	(%)	(%)							
Kharkof	13.9	68.9	0.44	12.3	0.537	79.39	-2.11	22.25	-11.58	1.38	2.30
Harding	12.9	69.1	0.47	11.6	0.538	80.10	-1.83	22.64	-13.42	1.64	2.60
Nuplains	12.3	71.5	0.43	10.9	0.576	80.03	-2.29	22.15	-10.68	1.38	1.54
Wesley	13.0	72.4	0.44	11.7	0.613	80.48	-2.04	21.19	-11.26	1.53	2.05
Jerry	12.4	72.5	0.45	11.7	0.606	80.20	-1.94	23.77	-12.17	1.55	3.17
98x0435-15	13.0	71.8	0.42	11.7	0.549	80.57	-1.93	22.42	-12.80	1.25	3.86
BC98334-04\$-02\$	11.8	70.9	0.41	10.7	0.706	80.99	-1.77	21.12	-11.31	1.21	3.89
BC98334-10W-8W	12.6	70.9	0.42	11.4	0.700	81.40	-1.69	20.37	-11.94	1.35	3.79
HV9W98A-1002R	11.8	73.2	0.46	10.8	0.706	82.21	-2.06	21.22	-10.97	1.04	3.83
HV9W02-846R	11.1	71.5	0.42	10.1	0.458	82.18	-2.18	21.85	-11.41	1.10	4.78
Millennium-27, ALS-1	12.1	71.0	0.41	10.7	0.537	81.45	-2.02	20.71	-11.24	1.10	3.79
NE03458	11.0	72.4	0.42	10.1	0.531	77.09	-1.62	18.13	-11.93	1.42	4.12
NE04490	11.7	71.2	0.43	10.3	0.683	79.49	-1.87	21.11	-12.92	1.69	3.04
NE04537	11.4	72.0	0.44	10.2	0.566	81.65	-2.07	21.35	-13.26	1.84	2.35
NH03614	11.2	72.3	0.41	10.1	0.604	81.17	-1.85	19.91	-12.99	1.68	3.10
NI05711	11.6	71.5	0.40	10.6	0.593	81.49	-2.24	22.16	-12.24	1.72	2.23
NI05714	11.6	71.1	0.54	10.7	0.612	82.17	-2.42	22.13	-13.13	1.84	2.91
NI05720W	12.1	71.4	0.44	11.1	0.574	82.35	-3.02	25.35	-13.11	2.46	1.12
NW03681	12.3	73.5	0.51	11.3	0.605	80.08	-1.90	18.97	-13.43	1.49	4.51
N98L20040-44	11.2	73.0	0.43	10.2	0.577	81.02	-1.91	20.89	-13.24	1.32	3.60
SD96240-3-1	13.1	72.4	0.49	12.0	0.546	77.14	-1.90	23.69	-14.37	1.79	0.99
SD98W175-1	13.7	72.7	0.52	12.4	0.521	79.55	-2.24	24.38	-12.38	1.78	1.48
SD05W012	12.4	69.9	0.48	11.7	0.452	80.87	-2.31	23.70	-12.69	1.58	2.28
SD05W018	12.6	72.3	0.47	11.3	0.535	80.84	-2.29	22.75	-12.66	1.46	3.96
SD05W030	12.7	70.8	0.45	11.2	0.356	81.87	-2.23	22.80	-10.73	2.38	4.49
SD05W138	12.3	70.1	0.48	11.4	0.671	82.29	-2.60	24.37	-12.99	1.21	3.40
SD05W140	13.7	70.6	0.46	12.4	0.638	80.85	-2.16	23.07	-14.49	0.16	-0.64
SD02804-1	12.1	72.8	0.49	11.3	0.227	80.41	-2.49	24.70	-9.19	1.31	2.55
SD05004	12.8	72.7	0.47	11.7	0.668	80.07	-2.56	26.98	-12.50	1.90	0.61
SD05118	13.2	72.5	0.49	11.9	0.661	79.31	-2.02	23.73	-11.16	1.73	1.96
SD05179	12.0	71.5	0.45	10.8	0.599	80.73	-2.45	24.80	-12.17	1.74	3.17
SD05210	12.9	73.6	0.44	12.0	0.661	79.39	-1.88	22.96	-13.30	1.67	2.57
BZ9W02-2051	11.8	72.2	0.43	10.7	0.583	81.19	-2.11	21.95	-13.47	1.86	2.96
NX03Y2489	12.5	66.7	0.48	11.4	0.387	84.41	-1.85	18.43	-11.57	1.43	2.88
NWX03Y2459	12.8	69.3	0.44	12.0	0.642	84.31	-2.18	19.36	-13.35	1.24	4.38
MT0419	12.5	71.9	0.42	11.2	0.665	80.20	-1.79	21.77	-13.12	1.58	3.62
MTCL0477	12.2	71.5	0.41	10.9	0.583	80.71	-1.76	22.24	-12.15	1.64	3.53
MT0495	12.4	70.6	0.44	11.4	0.231	78.24	-1.76	23.75	-11.09	1.47	3.45

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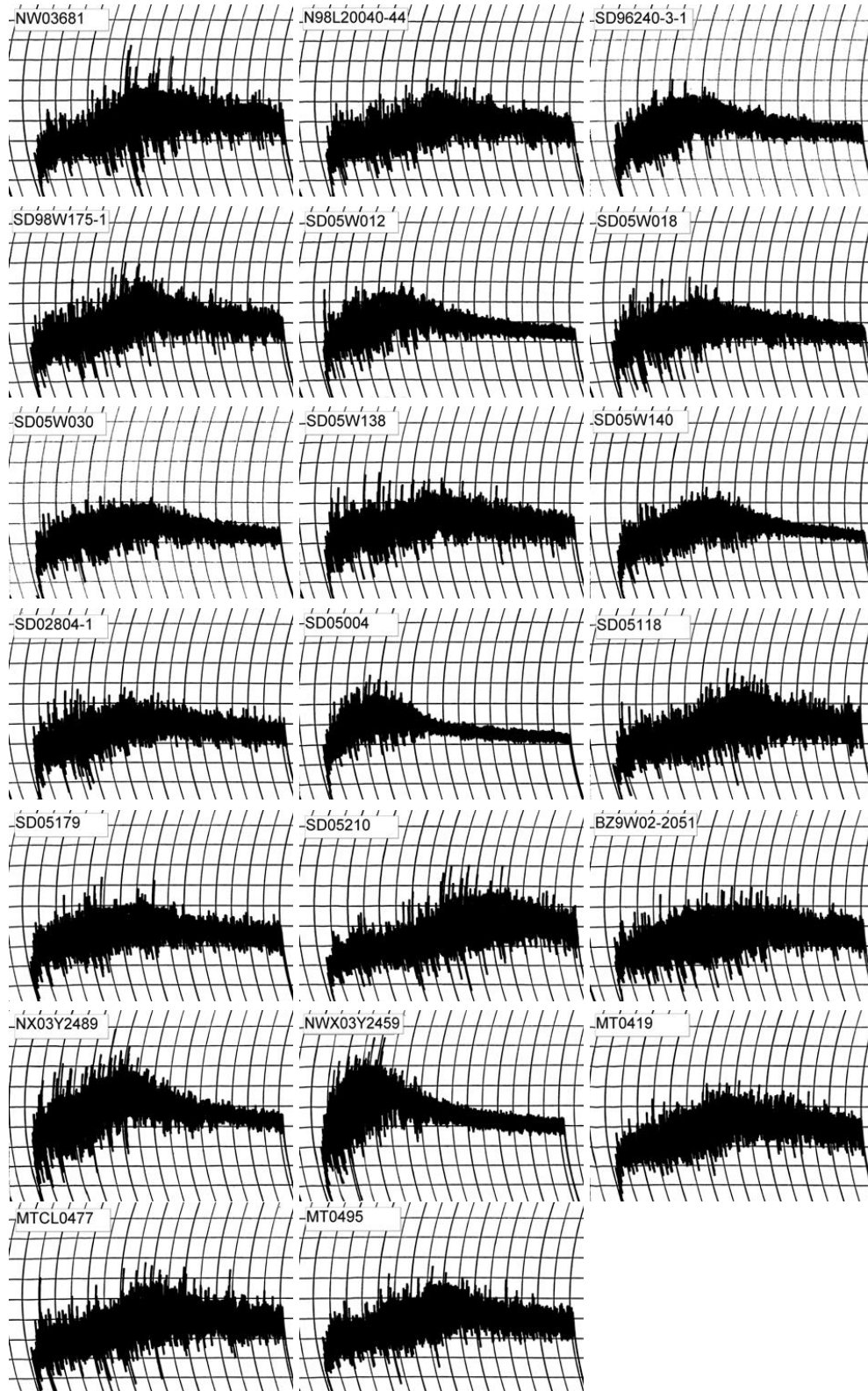
Northern Plains

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	12.3	62.4	3.63	3.63	4
Harding	11.6	61.3	3.75	3.59	2
Nuplains	10.9	61.2	3.00	2.62	2
Wesley	11.7	62.5	4.50	4.36	5
Jerry	11.7	62.5	4.38	4.24	5
98x0435-15	11.7	62.4	5.88	5.64	6
BC98334-04\$-02\$	10.7	60.7	3.13	2.63	2
BC98334-10W-8W	11.4	61.9	2.63	2.44	2
HV9W98A-1002R	10.8	61.0	3.63	3.11	2
HV9W02-846R	10.1	60.8	3.88	3.00	3
Millennium-27, ALS-1	10.7	60.8	4.00	3.38	4
NE03458	10.1	59.7	3.13	2.40	3
NE04490	10.3	60.1	3.38	2.70	3
NE04537	10.2	59.0	4.88	3.85	2
NH03614	10.1	59.7	4.63	3.57	5
NI05711	10.6	60.6	4.38	3.65	4
NI05714	10.7	60.8	4.38	3.71	4
NI05720W	11.1	61.4	4.00	3.55	4
NW03681	11.3	61.8	3.88	3.55	5
N98L20040-44	10.2	60.4	3.75	2.94	2
SD96240-3-1	12.0	63.0	2.63	2.63	1
SD98W175-1	12.4	63.7	3.63	3.63	3
SD05W012	11.7	61.5	2.25	2.17	1
SD05W018	11.3	60.7	3.00	2.74	2
SD05W030	11.2	61.6	3.38	3.06	2
SD05W138	11.4	59.0	3.50	3.27	3
SD05W140	12.4	61.7	3.13	3.13	0
SD02804-1	11.3	61.8	3.25	2.98	3
SD05004	11.7	62.5	1.88	1.82	0
SD05118	11.9	62.7	4.13	4.06	4
SD05179	10.8	60.9	3.38	2.88	2
SD05210	12.0	62.9	5.13	5.11	5
BZ9W02-2051	10.7	60.8	4.38	3.69	4
NX03Y2489	11.4	64.0	2.88	2.68	1
NWX03Y2459	12.0	62.9	1.63	1.63	1
MT0419	11.2	61.6	3.63	3.28	4
MTCL0477	10.9	61.2	4.13	3.61	4
MT0495	11.4	61.9	3.88	3.58	4

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Line	RVA							Pasting Temp (Deg. C)
	Stirring Number (RVU)	Peak Viscosity (RVU)	Trough Viscosity (RVU)	Breakdown (RVU)	Final Viscosity (RVU)	Set back (RVU)	Peak Time (min)	
Kharkof	166.17	239.67	170.50	69.17	292.42	121.92	6.47	
Harding	144.42	229.08	168.25	60.83	290.42	122.17	6.47	
Nuplains	152.08	227.50	169.50	58.00	300.83	131.33	6.40	
Wesley	142.33	222.50	160.25	62.25	288.00	127.75	6.40	
Jerry	120.08	147.92	88.42	59.50	180.50	92.08	5.93	
98x0435-15	133.00	210.92	135.67	75.25	251.83	116.17	6.13	
BC98334-04\$-02\$	127.83	226.08	147.08	79.00	262.83	115.75	6.27	
BC98334-10W-8W	124.50	169.25	87.92	81.33	179.17	91.25	5.87	
HV9W98A-1002R	110.92	190.50	103.75	86.75	199.50	95.75	6.00	
HV9W02-846R	173.92	238.83	169.75	69.08	290.17	120.42	6.40	
Millennium-27, ALS-1	135.08	204.25	138.75	65.50	259.58	120.83	6.20	
NE03458	137.50	254.75	171.00	83.75	302.17	131.17	6.33	
NE04490	124.83	227.00	164.75	62.25	299.33	134.58	6.33	
NE04537	125.42	181.17	123.42	57.75	239.75	116.33	6.13	
NH03614	128.42	208.50	146.92	61.58	274.83	127.92	6.20	
NI05711	129.83	213.25	144.17	69.08	262.00	117.83	6.20	
NI05714	133.75	162.67	91.50	71.17	182.25	90.75	6.07	
NI05720W	117.42	222.67	161.42	61.25	284.25	122.83	6.33	
NW03681	130.42	220.00	128.50	91.50	225.17	96.67	6.20	
N98L20040-44	111.00	195.08	128.50	66.58	244.33	115.83	6.07	
SD96240-3-1	141.17	218.83	156.25	62.58	273.75	117.50	6.40	
SD98W175-1	129.58	222.17	154.25	67.92	270.58	116.33	6.40	
SD05W012	127.67	173.42	105.83	67.58	206.17	100.33	6.07	
SD05W018	143.67	213.92	152.00	61.92	277.75	125.75	6.33	
SD05W030	148.67	215.50	158.83	56.67	282.75	123.92	6.40	
SD05W138	146.83	217.50	152.33	65.17	274.67	122.33	6.40	
SD05W140	137.83	210.17	150.08	60.08	266.83	116.75	6.40	
SD02804-1	157.42	218.92	166.50	52.42	295.08	128.58	6.40	
SD05004	154.83	211.00	159.08	51.92	273.92	114.83	6.53	
SD05118	160.67	224.92	164.00	60.92	287.33	123.33	6.40	
SD05179	134.25	228.17	157.83	70.33	276.58	118.75	6.40	
SD05210	147.75	214.17	152.42	61.75	272.67	120.25	6.33	
BZ9W02-2051	137.92	245.25	167.67	77.58	287.58	119.92	6.40	
NX03Y2489	44.50	58.58	8.00	50.58	13.25	5.25	3.33	
NWX03Y2459	97.00	142.33	40.50	101.83	56.58	16.08	3.73	
MT0419	91.67	213.50	137.33	76.17	250.33	113.00	6.20	
MTCL0477	148.00	211.67	165.33	46.33	291.00	125.67	6.40	
MT0495	119.92	198.58	133.92	64.67	253.17	119.25	6.20	

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Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	12.3	62.3	4.88	4.88	169.1	7.5	4.0	860	5.8	60
Harding	11.6	59.2	3.88	3.72	169.1	7.5	4.5	890	6.1	68
Nuplains	10.9	59.6	3.50	3.06	169.1	7.4	5.0	865	5.9	71
Wesley	11.7	61.0	5.25	5.09	170.0	7.4	5.0	905	6.2	69
Jerry	11.7	60.6	5.75	5.56	169.5	7.2	4.8	880	6.0	66
98x0435-15	11.7	61.7	7.13	6.84	171.0	7.4	3.8	830	5.6	61
BC98334-04\$-02\$	10.7	59.0	4.88	4.09	168.4	6.8	3.8	775	5.2	61
BC98334-10W-8W	11.4	60.8	3.50	3.25	170.4	7.1	4.0	835	5.6	63
HV9W98A-1002R	10.8	61.9	5.00	4.29	171.2	7.3	5.5	900	6.0	76
HV9W02-846R	10.1	60.7	5.50	4.25	169.9	7.0	5.0	830	5.6	73
Millennium-27, ALS-1	10.7	60.9	4.25	3.59	170.6	7.4	5.0	875	5.9	74
NE03458	10.1	60.5	5.13	3.94	170.0	7.1	3.2	815	5.5	72
NE04490	10.3	58.7	3.38	2.70	168.2	7.5	4.0	875	6.0	77
NE04537	10.2	57.6	5.50	4.34	166.9	7.2	4.0	845	5.9	74
NH03614	10.1	57.6	6.25	4.81	166.6	7.1	3.5	840	5.8	75
NI05711	10.6	60.5	5.75	4.79	169.6	7.2	4.0	855	5.8	72
NI05714	10.7	60.4	6.13	5.19	169.2	7.3	3.0	815	5.5	66
NI05720W	11.1	61.4	5.63	5.00	171.1	7.4	5.0	930	6.2	78
NW03681	11.3	63.0	6.00	5.49	171.8	7.2	4.5	985	6.5	82
N98L20040-44	10.2	60.5	4.75	3.72	169.4	7.5	5.0	885	5.9	80
SD96240-3-1	12.0	57.7	3.50	3.50	167.0	7.4	2.5	830	5.7	59
SD98W175-1	12.4	62.8	5.13	5.13	171.8	7.4	5.8	940	6.3	68
SD05W012	11.7	58.9	2.75	2.66	168.4	7.2	3.0	845	5.8	62
SD05W018	11.3	61.0	3.50	3.19	170.6	7.4	3.0	850	5.7	66
SD05W030	11.2	59.2	3.75	3.39	168.6	7.3	3.0	825	5.6	64
SD05W138	11.4	59.1	4.25	3.97	168.1	7.4	2.8	900	6.2	71
SD05W140	12.4	58.2	3.00	3.00	167.5	7.6	3.0	925	6.4	66
SD02804-1	11.3	59.1	3.88	3.56	168.3	7.4	4.2	915	6.3	74
SD05004	11.7	58.2	2.00	1.94	168.2	7.0	2.0	825	5.6	60
SD05118	11.9	62.3	5.50	5.41	171.5	7.3	4.0	865	5.8	64
SD05179	10.8	59.1	4.00	3.41	168.2	7.4	3.2	885	6.1	75
SD05210	12.0	61.9	7.13	7.10	170.9	7.4	5.0	945	6.4	72
BZ9W02-2051	10.7	60.9	6.00	5.06	169.9	7.4	4.0	870	5.9	73
NX03Y2489	11.4	62.0	3.88	3.62	171.1	7.4	0.0	970	6.6	79
NWX03Y2459	12.0	61.0	2.50	2.50	170.4	7.5	0.0	870	5.9	63
MT0419	11.2	61.2	5.00	4.52	170.1	7.5	3.8	925	6.4	76
MTCL0477	10.9	62.3	6.00	5.24	171.0	7.6	3.2	870	5.8	71
MT0495	11.4	61.1	4.50	4.16	170.5	7.4	4.0	940	6.5	76

Southern Regional Performance Nursery

2007 SRPN Intraregional Production Zone

Entry	Selection No.	Pedigree	Source
1	Kharkof	Kharkof	check
2	Scout 66	Scout 66	check
3	TAM-107	TAM-107	check
4	Trego	Trego	check
5	OK Bullet06ERU	KS96WGRC39/Jagger	OSU
6	OK05737W	KS96WGRC39/Jagger	OSU
7	OK03305	N40/OK94P455	OSU
8	OK03522	N566/OK94P597	OSU
9	OK02522W	KS96WGRC39/Jagger	OSU
10	OK02125	GA84200+/2*Jagger	OSU
11	KS04HW47-3-4	X921012-A-7-1/TGO	KSU-Hays
12	T151	T81/KS93U206	Trio
13	T153	T136/T151	Trio
14	T154	T88/2180//T811	Trio
15	T158	KS93U206/2*T81	Trio
16	98x0338-13	Jagger/W94-244-132	Agripro
17	98x0435-15	W95-091/W96-427	Agripro
18	99x0212-2	Mason/Jagger	Agripro
19	BC98331-03\$-2W	KS920709B-5-2/2137//KS920709B5-2	Agripro
20	BC98334-10W-8W	KS920709B-5-2/Stanof//KS920709B5-2	Agripro
21	BC98334-04\$-02\$	KS920709B-5-2/Stanof//KS920709B5-2	Agripro
22	HV9W96-1271R-1	B1551-WH / KS94U326	Westbred
23	HV9W02-267W	97H79(87H6//TX81V6607-2/87H66-2)/TGO	Westbred
24	HV9W02-112W	96HW94-5/TGO	Westbred
25	HV9W02-271W	97HW216(91HW19/WGRC15)/97HW349(ARL//TA2460/3*T107)	Westbred
26	KS990498-3-&-2	KS91W049-1-5-1/CM95091//X920709-B-5-2/3/X84W063-9-45-1/X85W663-7	KSU-Manhattan
27	KS970093-8-9-#1	HBK1064-3/KS84063-9-39-3-4W//X960103	KSU-Manhattan
28	KS980512-2-2	T67/X84W063-9-45//K92/3/SNF/4/X86509-1-1/X84W063-9-39-2//K92	KSU-Manhattan
29	KS980512-11-22	T67/X84W063-9-45//K92/3/SNF/4/X86509-1-1/X84W063-9-39-2//K92	KSU-Manhattan
30	CO01385-A1	Yumar/Arlin	CSU
31	CO02W280	98HW521(93HW91/93HW255)/98HW165(ARL/WGRC15)	CSU
32	CO03W054	KS96HW94//Trego/CO960293	CSU
33	CO03W239	KS01-5539/CO99W165	CSU
34	CO03W269	KS01-5539/CO99W191	CSU
35	CO03443	CO960691/CO970655	CSU
36	NI04420	NE96644(=ODESSKAYA P./CODY)/PAVON/*3SCOUT66 X NE94653(=ARA	UNL
37	NI04421	NE96644(=ODESSKAYA P./CODY)/PAVON/*3SCOUT66 X NE94653(=ARA	UNL
38	NE04424	KS92H363-2/COUGAR SIB(=NE85707/TBIRD) X NE94632(=ABILENE/NO	UNL
39	NI04428	KS98HW22//W95-615W/N94L189	UNL
40	SD05W012	NW96S016/SDW327	SDSU
41	SD05W138	SD98416/SD98W331	SDSU
42	T159	T136//T812*2/Karl	Trio
43	TX99A0153-1	OGALLALA/TAM-202	TAMU
44	TX03M1096	MASON/JAGGER	TAMU
45	TX01V5136RC	TAM-200/JAGGER	TAMU
46	TX01A7340	TX93V5723(TAM-200/TX82D5668)//JAGGER	TAMU
47	TX02A0252	TX90V6313//TX94V3724(TAM-200 BC41254-1-8-1-1/TX86V1405	TAMU

Entry	Selection No.	Pedigree	Source
48	TX04M410068	TX93D2385//2137/VERDE	TAMU
49	TX03A0148	TX89A7137/TIPACNA	TAMU
50	TX03A0563	X96V107/OGALLALA	TAMU



Hard Winter Wheat Quality Report 2007 SRPN-NCP

1 - Test weight	10	11 - Flour protein	8
2 - SKCS kernel weight	8	12 - Bake absorption	15
3 - Kernel weight SD	8	13 - Mixograph absorption	5
4 - SKCS kernel diameter	8	14 - Bake mix time	10
5 - Kernel diameter SD	8	15 - Mixograph mix time	5
6 - SKCS hardness	10	16 - Mixograph tolerance	5
7 - Hardness SD	8	17 - Dough weight	
8 - Flour yield	30	18 - Proof height	2
9 - Flour ash	10	19 - Loaf volume	20
10 - Milling score		20 - Volume regression	5
		21 - Crumb grain	25

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
Kharkof	43.4	Very Poor	75.9	42.3	Average	66.5		10,
Scout66	54.9	Very Good	96.1	51.6	Good	81.2		
TAM 107	38.1	Very Poor	66.7	59.4	Very Good	93.4	1AL	
Trego	48.5	Good	84.9	34.6	Very Poor	54.4		11,16,
OK Bullet06ERU	47.2	Average	82.5	62.6	Very Good	98.5		
OK05737W	48.2	Average	84.3	44.1	Average	69.4		
OK03305	53.1	Very Good	92.8	43.1	Average	67.8		
OK03522	55.3	Very Good	96.7	44.4	Average	69.8		3,
OK02522W	46.2	Average	80.9	60.4	Very Good	95.0		
OK02125	43.8	Poor	76.6	37.9	Poor	59.6		9,16,
KS04HW47-3-4	45.2	Poor	79.0	38.6	Poor	60.7		16,
T151	51.9	Very Good	90.8	42.4	Average	66.7	1AL	11,
T153	48.8	Good	85.4	59.9	Very Good	94.2	1AL	
T154	44.4	Poor	77.6	58.4	Very Good	91.9		3,5,
T158	52.3	Very Good	91.6	55.9	Good	87.9		
Art	48.6	Good	85.1	40.1	Poor	63.1	1BL	10,13,
Hawken	50.8	Very Good	88.9	52.4	Good	82.5		14,15,
99x0212-2	43.0	Very Poor	75.2	58.8	Very Good	92.4		
BC98331-03\$-2W	49.0	Good	85.8	51.5	Good	81.0		
BC98334-10W-8W	47.3	Average	82.8	35.3	Very Poor	55.5		
BC98334-04\$-02\$	46.9	Average	82.1	21.8	Very Poor	34.3		12,16,17,18,19,20,
HV9W96-1271R-1	45.8	Poor	80.2	49.5	Good	77.9		9,
HV9W02-267W	45.7	Poor	80.0	37.7	Poor	59.3		4,
HV9W02-112W	42.6	Very Poor	74.5	35.5	Very Poor	55.9		15,
HV9W02-271W	50.2	Good	87.9	42.1	Average	66.3		16,
KS990498-3-&~2	49.3	Good	86.3	39.4	Poor	62.0		
KS970093-8-9-#1	57.2	Very Good	100.0	27.7	Very Poor	43.6		12,16,17,20,
KS980512-2-2	50.3	Good	88.1	51.6	Good	81.2		
KS980512-11-22	43.6	Poor	76.3	39.4	Poor	62.0		
Bill Brown	42.6	Very Poor	74.5	60.4	Very Good	94.9		2,4,

Quality scores and ratings are calculated directly from the relative trait weightings (printed at the top of the page) and are applicable only to the nursery selected.



Hard Winter Wheat Quality Report 2007 SRPN-NCP

1 - Test weight	10	11 - Flour protein	8
2 - SKCS kernel weight	8	12 - Bake absorption	15
3 - Kernel weight SD	8	13 - Mixograph absorption	5
4 - SKCS kernel diameter	8	14 - Bake mix time	10
5 - Kernel diameter SD	8	15 - Mixograph mix time	5
6 - SKCS hardness	10	16 - Mixograph tolerance	5
7 - Hardness SD	8	17 - Dough weight	
8 - Flour yield	30	18 - Proof height	2
9 - Flour ash	10	19 - Loaf volume	20
10 - Milling score		20 - Volume regression	5
		21 - Crumb grain	25

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
CO02W280	42.9	Very Poor	75.0	40.9	Poor	64.3		
CO03W054	46.2	Average	80.8	29.2	Very Poor	46.0		14,15,
CO03W239	40.0	Very Poor	70.0	43.3	Average	68.1		1,2,4,
CO03W269	43.4	Poor	75.9	57.7	Very Good	90.7		1,2,4,16,
CO03443	47.2	Average	82.6	56.2	Good	88.4		
NI04420	47.8	Average	83.6	63.6	Very Good	100.0		
NI04421	44.5	Poor	78.0	34.0	Very Poor	53.5	1BL	
NE04424	52.7	Very Good	92.2	41.0	Poor	64.4		
NI04428	45.9	Average	80.4	37.4	Poor	58.9		15,21,
SD05W012	45.9	Average	80.4	25.4	Very Poor	40.0		12,16,17,19,
SD05W138	43.5	Poor	76.2	56.8	Good	89.4		6,
T159	39.1	Very Poor	68.5	31.7	Very Poor	49.8		6,8,10,19,20,
TX99A0153-1	51.0	Very Good	89.2	29.2	Very Poor	45.9	1AL	12,16,17,
TX03M1096	48.5	Good	84.9	58.9	Very Good	92.7		
TX01V5136RC	54.4	Very Good	95.2	42.9	Average	67.5		
TX01A7340	42.3	Very Poor	73.9	50.0	Good	78.7		8,
TX02A0252	48.7	Good	85.2	43.4	Average	68.2		
TX04M410068	49.1	Good	86.0	49.3	Average	77.6		18,20,
TX03A0148	38.1	Very Poor	66.7	35.6	Poor	56.1		1,3,5,8,20,
TX03A0563	44.9	Poor	78.6	57.5	Good	90.5		

2007 SRPN Intraregional Production Zone

North Central Plains

LINE	Wt/Bu (lb)	SKCS Average Kernel						Hardness			
		Moisture		Weight		Diameter		SKCS	Class	Distribution	
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)				
								(sd)			
Kharkof	60.1	11.2	0.6	28.5	8.5	2.13	0.46	47 22	MIXED	030-022-020-028-03	
Scout 66	59.9	11.3	0.6	31.2	9.1	2.29	0.53	59 16	HARD	007-015-027-051-02	
TAM-107	55.5	11.1	0.6	26.8	9.4	2.04	0.55	63 20	HARD	007-013-021-059-02	
Trego	59.6	11.3	0.6	29.3	9.4	2.12	0.51	59 18	HARD	010-013-024-053-02	
OK Bullet06ERU	58.2	10.9	0.5	30.4	9.6	2.30	0.57	68 19	HARD	004-010-017-069-01	
OK05737W	57.3	11.2	0.6	30.2	8.5	2.27	0.54	57 18	HARD	007-017-029-047-02	
OK03305	59.6	11.2	0.6	31.2	9.7	2.27	0.56	57 16	HARD	006-019-030-045-02	
OK03522	60.2	11.3	0.6	36.6	10.8	2.51	0.57	64 15	HARD	004-009-024-063-01	
OK02522W	56.0	11.1	0.6	29.1	8.7	2.24	0.52	65 19	HARD	006-010-020-064-02	
OK02125	57.7	10.9	0.5	29.5	9.9	2.22	0.57	70 18	HARD	002-007-013-078-01	
KS04HW47-3-4	55.8	10.8	0.6	29.4	10.0	2.16	0.57	72 18	HARD	003-006-014-077-01	
T151	58.9	10.7	0.6	31.0	9.6	2.22	0.56	62 18	HARD	007-010-028-055-02	
T153	58.4	11.1	0.7	30.0	9.3	2.23	0.56	62 16	HARD	004-011-028-057-01	
T154	59.8	11.0	0.6	30.7	9.4	2.24	0.52	64 16	HARD	004-009-024-063-01	
T158	58.5	10.7	0.8	33.6	11.3	2.40	0.63	53 20	MIXED	016-020-025-039-03	
98x0338-13	58.6	10.9	0.6	26.8	7.4	2.15	0.45	59 17	HARD	005-018-026-051-01	
98x0435-15	58.3	10.9	0.6	28.7	7.5	2.24	0.45	61 17	HARD	005-012-026-057-01	
99x0212-2	56.7	10.8	0.7	29.3	9.0	2.18	0.49	68 16	HARD	003-007-020-070-01	
BC98331-03\$-2W	58.6	10.7	0.5	28.1	8.3	2.16	0.47	54 17	MIXED	011-019-030-040-03	
BC98334-10W-8W	57.8	10.8	0.6	30.1	9.7	2.20	0.52	55 18	HARD	010-021-026-043-02	
BC98334-04\$-02\$	58.0	10.7	0.6	28.4	8.3	2.09	0.48	56 18	HARD	009-022-026-043-02	
HV9W96-1271R-1	56.5	11.4	0.5	28.8	9.8	2.06	0.53	61 16	HARD	004-016-024-056-01	
HV9W02-267W	56.0	11.1	0.6	30.9	9.0	2.18	0.50	52 18	MIXED	017-019-027-037-03	
HV9W02-112W	55.7	11.0	0.6	25.9	8.4	1.98	0.44	57 19	MIXED	011-017-026-046-03	
HV9W02-271W	57.7	10.7	0.6	31.3	9.3	2.27	0.53	46 18	MIXED	023-028-027-022-03	
KS990498-3-&~2	55.4	10.8	0.5	26.4	8.4	2.01	0.49	67 17	HARD	002-009-019-070-01	
KS970093-8-9-#1	61.9	10.4	0.5	33.1	9.0	2.36	0.46	58 16	HARD	007-015-032-046-02	
KS980512-2-2	60.0	10.7	0.5	32.0	9.3	2.27	0.50	56 17	HARD	009-019-029-043-02	
KS980512-11-22	56.6	10.5	0.6	27.4	7.9	2.14	0.46	56 18	HARD	010-015-032-043-02	
CO01385-A1	56.7	10.5	0.5	26.5	9.2	2.08	0.55	63 21	HARD	009-013-015-063-02	
CO02W280	56.8	10.4	0.5	25.6	9.2	1.98	0.49	73 18	HARD	002-004-013-081-01	
CO03W054	58.2	10.5	0.4	30.5	10.2	2.25	0.55	66 19	HARD	005-011-018-066-01	
CO03W239	54.6	10.2	0.5	27.2	9.0	2.04	0.51	60 19	HARD	007-015-020-058-02	
CO03W269	55.0	10.1	0.5	24.9	8.2	1.97	0.49	62 18	HARD	005-012-025-058-01	
CO03443	56.4	10.6	0.5	23.9	7.7	1.98	0.46	67 18	HARD	002-010-019-069-01	
NI04420	59.3	10.5	0.5	30.0	9.0	2.29	0.56	63 17	HARD	005-008-024-063-01	
NI04421	56.0	10.6	0.5	26.4	9.0	2.08	0.47	61 19	HARD	008-012-024-056-02	
NE04424	60.2	10.7	0.5	32.6	9.6	2.42	0.53	58 18	HARD	007-015-029-049-02	
NI04428	59.6	10.6	0.5	29.1	8.9	2.25	0.52	64 18	HARD	005-008-025-062-01	
SD05W012	57.9	11.1	0.5	31.7	10.4	2.21	0.57	56 18	HARD	008-019-028-045-02	
SD05W138	59.6	10.9	0.4	27.5	8.8	2.10	0.47	66 18	HARD	004-007-019-070-01	
T159	58.8	10.6	0.4	31.4	9.0	2.18	0.47	9 18	SOFT	094-003-002-001-05	
TX99A0153-1	58.9	11.0	0.5	32.1	9.7	2.24	0.49	58 18	HARD	006-016-032-046-02	
TX03M1096	58.4	10.4	0.4	29.8	9.1	2.17	0.48	66 17	HARD	003-007-022-068-01	
TX01V5136RC	60.7	10.6	0.5	32.0	9.1	2.46	0.53	70 17	HARD	003-007-010-080-01	

LINE	Wt/Bu (lb)	SKCS Average Kernel						Hardness			
		Moisture		Weight		Diameter		SKCS		Class	Distribution
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)	(sd)			
TX01A7340	57.7	10.5	0.5	28.3	9.6	2.16	0.54	69	18	HARD	003-008-019-070-01
TX02A0252	58.8	10.8	0.4	29.8	9.6	2.26	0.47	60	19	HARD	008-015-022-055-02
TX04M410068	56.9	10.6	0.4	26.8	8.0	2.12	0.49	73	16	HARD	002-004-012-082-01
TX03A0148	55.1	10.8	0.5	36.1	12.2	2.54	0.65	58	18	HARD	009-016-028-047-02
TX03A0563	58.6	10.3	0.4	29.5	10.2	2.26	0.56	54	19	MIXED	013-018-030-039-03

2007 SRPN Intraregional Production Zone

North Central Plains

LINE	Wheat		Flour			Noodle Color					
	Protein	Milling Yield	Ash	Protein	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
	(%)	(%)	(%)	(%)							
Kharkof	13.8	69.5	0.52	12.3	0.566	80.56	-2.23	23.78	-13.32	3.06	-0.65
Scout 66	13.2	73.0	0.52	12.1	0.611	79.00	-1.77	22.39	-13.21	1.76	2.38
TAM-107	12.7	68.3	0.53	11.6	0.736	80.22	-1.88	23.53	-14.70	2.11	3.62
Trego	12.4	71.2	0.52	11.1	0.739	80.97	-1.83	21.36	-16.14	2.53	2.89
OK Bullet06ERU	13.6	70.8	0.55	12.3	0.547	79.94	-1.41	22.56	-13.93	2.08	2.84
OK05737W	13.3	71.3	0.53	12.0	0.645	81.04	-1.32	20.43	-14.50	1.78	5.14
OK03305	12.9	72.8	0.51	11.7	0.589	80.28	-1.48	21.30	-13.95	1.86	3.71
OK03522	13.4	71.5	0.49	11.9	0.244	80.66	-1.48	21.54	-12.56	1.29	4.30
OK02522W	14.0	71.1	0.55	12.6	0.637	78.66	-1.19	22.43	-14.81	2.02	3.33
OK02125	12.6	69.5	0.58	11.8	0.782	80.34	-1.74	23.75	-14.05	1.62	4.20
KS04HW47-3-4	12.7	71.1	0.56	11.6	0.600	79.99	-1.65	23.27	-14.10	1.95	2.35
T151	12.1	71.6	0.48	11.1	0.658	80.60	-2.15	24.00	-11.86	1.62	4.27
T153	12.9	69.1	0.47	11.5	0.711	79.96	-1.71	23.06	-13.06	1.55	3.48
T154	12.8	69.6	0.46	11.6	0.645	79.73	-1.83	23.36	-13.45	1.62	2.76
T158	12.2	70.3	0.43	11.1	0.657	79.60	-1.57	23.18	-11.85	1.15	3.59
98x0338-13	13.5	68.6	0.54	11.9	0.743	79.04	-1.59	23.25	-12.48	1.54	4.14
98x0435-15	13.6	70.0	0.47	12.7	0.641	79.14	-1.43	22.35	-12.93	1.33	3.46
99x0212-2	13.2	68.1	0.52	12.0	0.731	80.05	-1.64	24.02	-11.72	1.47	3.10
BC98331-03\$-2W	12.7	71.0	0.46	11.8	0.712	81.54	-1.92	21.92	-14.07	1.64	4.28
BC98334-10W-8W	13.6	69.5	0.45	12.0	0.772	80.40	-1.49	22.09	-14.01	2.08	2.52
BC98334-04\$-02\$	12.6	69.5	0.44	11.5	0.778	79.93	-1.21	19.97	-13.17	1.54	5.53
HV9W96-1271R-1	13.8	71.8	0.58	12.6	0.711	80.08	-1.78	22.78	-15.44	2.21	2.94
HV9W02-267W	12.5	71.1	0.49	11.4	0.816	81.31	-1.67	20.68	-16.77	2.20	3.39
HV9W02-112W	12.6	69.3	0.48	11.4	0.744	80.25	-1.65	22.33	-14.69	1.80	2.85
HV9W02-271W	12.9	72.1	0.52	12.1	0.738	80.44	-2.43	25.09	-14.37	2.34	1.81
KS990498-3-&-2	12.4	70.7	0.54	11.5	0.650	79.88	-1.52	21.39	-15.31	2.03	4.35
KS970093-8-9-#1	13.1	73.0	0.47	12.1	0.675	81.55	-1.53	19.47	-13.67	1.05	7.07
KS980512-2-2	12.4	70.0	0.47	11.4	0.647	80.60	-1.47	21.61	-12.75	1.57	3.81
KS980512-11-22	12.9	70.6	0.47	11.9	0.749	80.09	-1.84	23.46	-13.57	1.75	1.87
CO01385-A1	12.7	68.1	0.51	11.7	0.667	80.93	-1.92	22.85	-13.75	1.40	3.75
CO02W280	12.8	69.1	0.54	11.2	0.770	81.04	-1.93	22.49	-14.52	2.16	3.42
CO03W054	12.6	70.6	0.51	11.3	0.706	81.11	-1.75	20.21	-14.94	1.60	5.03
CO03W239	13.3	68.1	0.51	11.9	0.855	79.78	-1.66	21.97	-17.03	2.18	1.99
CO03W269	13.6	69.0	0.51	12.7	0.780	79.19	-1.60	22.33	-13.68	1.67	2.53
CO03443	12.7	70.6	0.52	11.4	0.448	79.94	-1.92	25.21	-11.97	1.30	3.78
NI04420	12.7	70.9	0.51	11.4	0.671	80.45	-1.86	22.99	-12.36	1.45	3.07
NI04421	12.6	69.6	0.56	11.9	0.590	73.06	-0.99	15.32	-16.19	1.76	5.54
NE04424	12.3	71.7	0.50	11.2	0.692	78.75	-1.67	20.82	-14.36	1.57	3.24
NI04428	12.9	69.9	0.50	11.6	0.725	78.57	-1.65	21.88	-13.00	1.19	3.07
SD05W012	12.6	69.5	0.55	11.5	0.458	80.94	-1.65	22.16	-12.90	1.32	4.93
SD05W138	13.1	69.8	0.55	12.0	0.651	79.84	-1.98	25.63	-12.12	1.49	2.63
T159	13.4	66.2	0.52	11.9	0.245	80.77	-2.10	22.73	-13.26	1.86	4.21

LINE	Wheat		Flour			Noodle Color					
	Protein	Milling Yield	Ash	Protein	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
	(%)	(%)	(%)	(%)							
TX99A0153-1	13.0	71.9	0.54	11.7	0.584	81.09	-2.00	22.56	-12.58	1.25	3.24
TX03M1096	13.7	68.8	0.47	11.8	0.747	80.57	-1.79	23.30	-13.29	1.48	3.23
TX01V5136RC	13.7	70.7	0.53	12.3	0.689	79.72	-1.84	22.95	-14.41	1.32	3.58
TX01A7340	14.0	68.0	0.54	12.7	0.453	79.36	-1.64	22.52	-14.94	1.59	4.05
TX02A0252	12.7	71.4	0.55	11.4	0.693	79.90	-1.44	22.32	-15.03	1.43	3.49
TX04M410068	14.2	70.6	0.56	12.9	0.474	79.20	-1.47	23.26	-15.17	1.83	1.76
TX03A0148	13.6	67.5	0.53	12.2	0.545	78.79	-1.28	23.25	-13.63	1.64	4.71
TX03A0563	13.7	69.9	0.47	12.3	0.672	77.99	-1.08	23.09	-12.78	2.03	-0.59

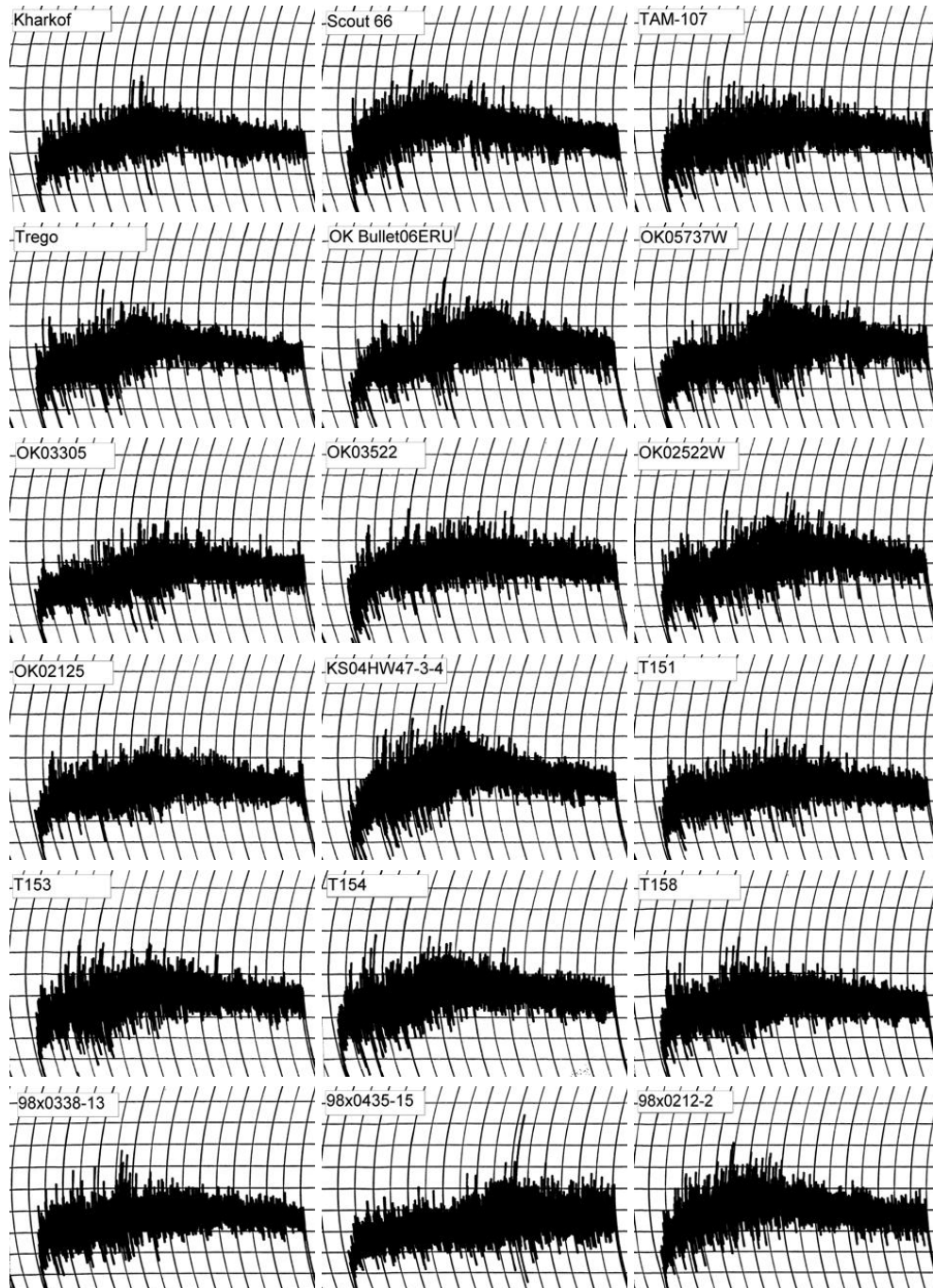
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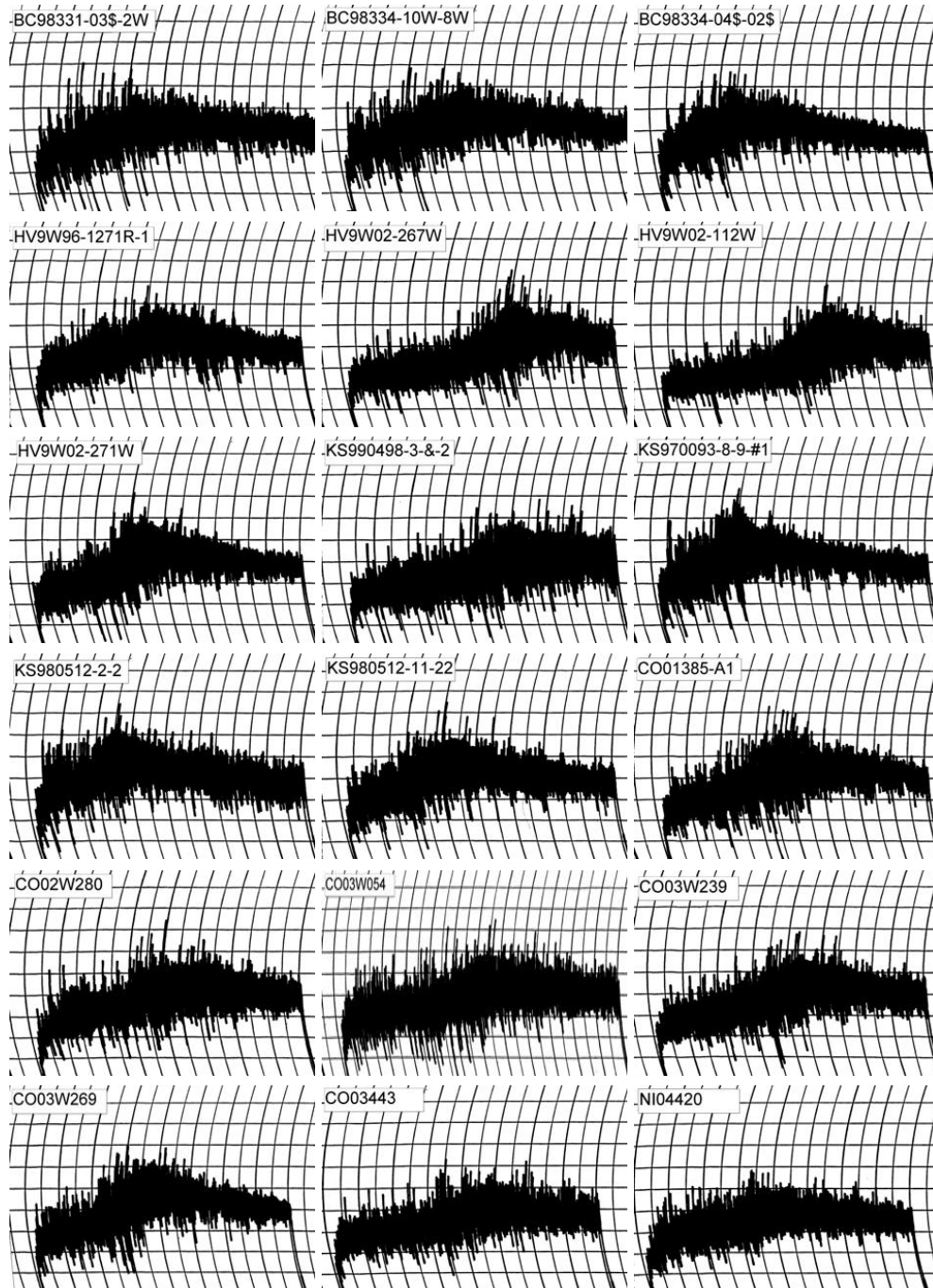
	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	12.3	63.4	3.63	3.63	3
Scout 66	12.1	63.0	2.75	2.75	3
TAM-107	11.6	62.2	3.13	2.97	4
Trego	11.1	61.4	3.38	3.01	2
OK Bullet06ERU	12.3	63.5	4.25	4.25	4
OK05737W	12.0	63.0	3.75	3.75	4
OK03305	11.7	62.5	4.00	3.86	3
OK03522	11.9	62.8	3.75	3.70	4
OK02522W	12.6	63.9	4.13	4.13	4
OK02125	11.8	62.7	3.88	3.81	2
KS04HW47-3-4	11.6	62.3	3.50	3.33	2
T151	11.1	61.4	3.88	3.44	4
T153	11.5	62.1	3.50	3.30	4
T154	11.6	62.2	3.38	3.20	4
T158	11.1	61.5	3.13	2.81	3
98x0338-13	11.9	60.8	3.00	2.98	3
98x0435-15	12.7	64.2	6.13	6.13	6
99x0212-2	12.0	62.9	3.00	2.99	4
BC98331-03\$-2W	11.8	62.6	3.50	3.42	4
BC98334-10W-8W	12.0	62.9	3.50	3.48	4
BC98334-04\$-02\$	11.5	62.0	2.50	2.34	2
HV9W96-1271R-1	12.6	64.0	3.63	3.63	3
HV9W02-267W	11.4	63.0	5.00	4.66	5
HV9W02-112W	11.4	63.4	5.25	4.84	5
HV9W02-271W	12.1	63.2	3.50	3.50	2
KS990498-3-&~2	11.5	62.1	5.00	4.70	6
KS970093-8-9-#1	12.1	63.2	2.50	2.50	2
KS980512-2-2	11.4	61.9	2.50	2.32	4
KS980512-11-22	11.9	62.7	3.38	3.32	4
CO01385-A1	11.7	62.4	4.00	3.86	4
CO02W280	11.2	61.7	4.63	4.21	5
CO03W054	11.3	61.8	7.38	6.78	6
CO03W239	11.9	62.7	4.38	4.31	5
CO03W269	12.7	64.2	3.88	3.88	2
CO03443	11.4	61.9	5.00	4.61	4
NI04420	11.4	61.9	3.88	3.59	3
NI04421	11.9	62.8	4.88	4.84	4
NE04424	11.2	61.6	3.88	3.50	4
NI04428	11.6	62.2	6.00	5.68	6
SD05W012	11.5	62.1	2.88	2.70	0
SD05W138	12.0	62.9	4.75	4.74	4
T159	11.9	62.7	3.38	3.33	3

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
TX99A0153-1	11.7	62.5	3.00	2.90	1
TX03M1096	11.8	62.7	3.38	3.31	4
TX01V5136RC	12.3	65.0	3.50	3.50	3
TX01A7340	12.7	64.0	3.50	3.50	4
TX02A0252	11.4	61.9	3.38	3.14	4
TX04M410068	12.9	64.5	3.13	3.13	4
TX03A0148	12.2	63.2	3.00	3.00	4
TX03A0563	12.3	63.4	3.50	3.50	4

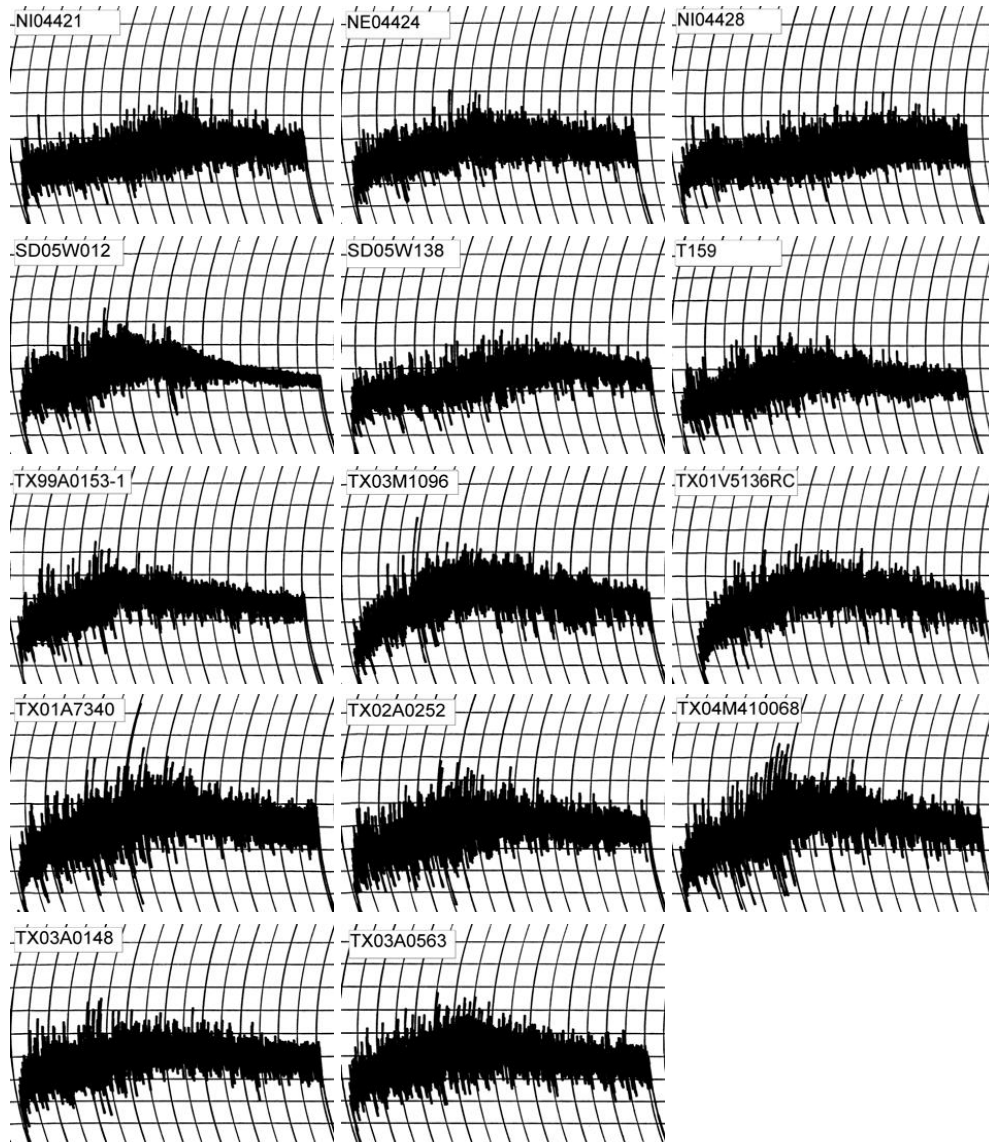
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Line	RVA							
	Stirring Number	Peak Viscosity	Trough Viscosity	Breakdown	Final Viscosity	Set back	Peak Time	Pasting Temp
	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(min)	(Deg. C)
Kharkof	132.92	220.58	136.50	84.08	243.17	106.67	6.20	
Scout 66	110.33	186.58	100.08	86.50	198.33	98.25	5.93	
TAM-107	125.08	256.08	160.08	96.00	288.83	128.75	6.33	
Trego	94.33	191.92	83.92	108.00	166.83	82.92	5.87	
OK Bullet06ERU	94.08	136.25	53.33	82.92	123.67	70.33	5.53	
OK05737W	111.67	205.17	112.25	92.92	220.00	107.75	6.00	
OK03305	86.50	190.92	87.00	103.92	170.67	83.67	5.87	
OK03522	114.00	195.75	118.50	77.25	230.33	111.83	5.93	
OK02522W	121.50	200.75	113.17	87.58	221.50	108.33	6.00	
OK02125	126.50	209.42	137.67	71.75	262.25	124.58	6.20	
KS04HW47-3-4	96.33	159.17	81.58	77.58	170.92	89.33	5.80	
T151	119.67	232.92	143.33	89.58	258.83	115.50	6.27	
T153	99.50	165.25	83.58	81.67	172.33	88.75	5.93	
T154	92.92	151.42	71.58	79.83	152.92	81.33	5.73	
T158	121.17	227.75	134.75	93.00	244.42	109.67	6.20	
98x0338-13	122.25	206.08	132.00	74.08	246.75	114.75	6.20	
98x0435-15	111.58	211.17	125.33	85.83	235.92	110.58	6.07	
99x0212-2	119.75	183.75	117.17	66.58	233.75	116.58	6.07	
BC98331-03\$-2W	83.83	122.92	49.17	73.75	112.83	63.67	5.40	
BC98334-10W-8W	56.00	95.58	22.50	73.08	56.00	33.50	5.00	
BC98334-04\$-02\$	92.92	177.92	91.83	86.08	184.25	92.42	5.87	
HV9W96-1271R-1	107.58	202.00	123.08	78.92	239.75	116.67	6.07	
HV9W02-267W	99.58	179.83	87.58	92.25	184.92	97.33	5.93	
HV9W02-112W	108.58	230.33	119.33	111.00	221.25	101.92	6.13	
HV9W02-271W	90.83	167.50	81.50	86.00	174.08	92.58	5.80	
KS990498-3-&~2	98.08	168.00	79.67	88.33	170.33	90.67	5.73	
KS970093-8-9-#1	155.75	239.42	162.25	77.17	272.75	110.50	6.40	
KS980512-2-2	104.92	224.08	133.33	90.75	250.33	117.00	6.13	
KS980512-11-22	117.58	221.25	135.00	86.25	259.33	124.33	6.13	
CO01385-A1	113.67	201.67	128.33	73.33	254.75	126.42	6.07	
CO02W280	52.50	95.17	19.92	75.25	49.75	29.83	4.87	
CO03W054	98.92	171.00	91.75	79.25	180.25	88.50	6.00	
CO03W239	44.50	91.83	15.50	76.33	39.50	24.00	4.87	
CO03W269	69.42	120.33	37.50	82.83	90.92	53.42	5.40	
CO03443	98.83	164.00	79.00	85.00	168.33	89.33	5.87	
NI04420	120.92	179.67	110.08	69.58	212.00	101.92	6.07	
NI04421	126.33	197.08	129.92	67.17	257.33	127.42	6.20	
NE04424	117.58	189.33	123.83	65.50	238.00	114.17	6.20	
NI04428	131.92	216.92	153.25	63.67	289.58	136.33	6.27	
SD05W012	86.50	118.92	49.25	69.67	116.50	67.25	5.47	
SD05W138	99.08	145.08	70.42	74.67	153.83	83.42	5.73	
T159	132.67	248.08	147.83	100.25	252.67	104.83	6.33	
TX99A0153-1	121.58	224.33	149.92	74.42	271.42	121.50	6.33	
TX03M1096	111.17	212.67	137.75	74.92	262.75	125.00	6.07	
TX01V5136RC	120.33	216.75	139.83	76.92	258.92	119.08	6.27	
TX01A7340	116.67	246.67	151.33	95.33	254.08	102.75	6.33	

RVA								
	Stirring Number	Peak Viscosity	Trough Viscosity	Breakdown	Final Viscosity	Set back	Peak Time	Pasting Temp
Line	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(min)	(Deg. C)
TX02A0252	126.50	224.75	141.08	83.67	266.17	125.08	6.20	
TX04M410068	102.00	166.00	94.83	71.17	195.25	100.42	5.80	
TX03A0148	107.33	178.50	93.25	85.25	188.83	95.58	5.93	
TX03A0563	113.58	212.08	136.83	75.25	262.67	125.83	6.13	

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Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	12.3	60.8	3.75	3.75	170.3	8.0	4.5	960	6.4	71
Scout 66	12.1	62.1	2.88	2.88	171.9	8.1	4.0	940	6.3	71
TAM-107	11.6	61.1	5.25	4.99	170.1	7.5	4.0	980	6.6	79
Trego	11.1	59.1	3.75	3.34	168.4	7.6	4.8	910	6.2	75
OK Bullet06ERU	12.3	63.2	5.00	5.00	171.2	7.5	5.0	890	6.0	63
OK05737W	12.0	62.2	5.44	5.44	171.6	7.8	4.5	935	6.3	70
OK03305	11.7	61.2	4.50	4.34	170.3	7.8	3.9	953	6.5	75
OK03522	11.9	61.9	5.50	5.43	170.6	7.8	2.5	945	6.5	73
OK02522W	12.6	62.9	5.00	5.00	172.2	7.8	4.0	925	6.3	65
OK02125	11.8	60.8	5.13	5.03	170.6	7.6	3.5	870	5.9	64
KS04HW47-3-4	11.6	62.1	4.25	4.05	171.8	7.6	3.8	890	6.0	68
T151	11.1	61.2	4.13	3.67	171.0	7.4	4.5	955	6.6	81
T153	11.5	61.9	4.50	4.24	171.2	7.7	4.0	950	6.5	76
T154	11.6	60.8	4.00	3.79	170.3	7.7	4.0	975	6.7	79
T158	11.1	61.0	4.00	3.59	170.3	7.7	4.0	965	6.5	81
98x0338-13	11.9	59.8	4.50	4.47	170.0	7.9	3.8	945	6.3	72
98x0435-15	12.7	63.9	8.50	8.50	172.3	8.0	4.0	960	6.4	68
99x0212-2	12.0	65.0	3.88	3.86	174.2	7.8	4.0	935	6.1	71
BC98331-03\$-2W	11.8	60.2	3.75	3.66	169.9	7.4	4.0	880	6.0	66
BC98334-10W-8W	12.0	60.1	3.50	3.48	173.4	7.4	4.5	870	5.9	64
BC98334-04\$-02\$	11.5	58.8	2.75	2.57	167.6	7.3	3.2	795	5.3	58
HV9W96-1271R-1	12.6	62.8	4.50	4.50	172.4	8.1	5.2	1005	6.8	73
HV9W02-267W	11.4	61.2	6.00	5.59	170.3	7.5	4.5	920	6.2	73
HV9W02-112W	11.4	64.2	6.88	6.35	172.9	7.5	3.8	895	6.0	71
HV9W02-271W	12.1	60.6	4.50	4.50	170.4	7.6	3.5	945	6.4	71
KS990498-3-&~2	11.5	60.8	7.01	6.58	170.7	7.7	4.8	995	6.8	82
KS970093-8-9-#1	12.1	58.0	3.38	3.38	167.7	7.6	3.5	853	5.8	61
KS980512-2-2	11.4	59.1	3.00	2.79	169.2	7.6	5.0	905	6.2	72
KS980512-11-22	11.9	61.1	3.38	3.32	171.1	7.5	4.5	940	6.4	72
CO01385-A1	11.7	60.3	4.63	4.46	169.9	7.6	5.0	900	6.1	69
CO02W280	11.2	61.1	5.25	4.77	170.0	7.7	4.5	920	6.3	75
CO03W054	11.3	61.1	9.50	8.72	168.6	7.7	4.5	890	6.1	71
CO03W239	11.9	61.3	5.75	5.66	170.4	7.8	4.8	970	6.6	76
CO03W269	12.7	59.5	4.38	4.38	169.0	7.9	4.0	980	6.8	70
CO03443	11.4	62.2	6.50	6.00	171.1	7.7	5.0	930	6.3	75
NI04420	11.4	60.2	4.50	4.17	169.3	7.9	5.0	975	6.8	80
NI04421	11.9	60.1	6.38	6.32	172.0	7.5	3.5	905	6.2	68
NE04424	11.2	60.2	5.25	4.74	169.2	7.7	3.8	920	6.4	75
NI04428	11.6	60.3	6.25	5.92	169.4	7.5	2.0	870	6.0	66
SD05W012	11.5	58.0	3.32	3.11	167.6	7.4	2.5	830	5.7	62
SD05W138	12.0	61.0	5.00	4.99	170.8	7.7	4.0	935	6.3	71
T159	11.9	59.4	3.50	3.44	168.7	7.5	2.8	830	5.6	60
TX99A0153-1	11.7	57.7	3.25	3.15	167.1	7.5	3.8	880	6.1	66
TX03M1096	11.8	62.3	3.50	3.43	173.0	7.4	5.0	910	6.0	69

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
TX01V5136RC	12.3	62.0	3.38	3.38	175.5	7.8	3.8	975	6.6	73
TX01A7340	12.7	64.0	5.00	5.00	173.4	7.7	3.8	980	6.6	70
TX02A0252	11.4	63.0	4.75	4.41	172.6	7.4	3.2	905	6.1	72
TX04M410068	12.9	63.1	3.88	3.88	172.6	7.2	3.0	875	5.9	58
TX03A0148	12.2	59.8	4.13	4.13	169.6	7.4	3.2	860	5.9	61
TX03A0563	12.3	61.2	4.25	4.25	171.6	7.6	4.0	930	6.3	68



Hard Winter Wheat Quality Report 2007 SRPN-NHP

1 - Test weight	10	11 - Flour protein	8
2 - SKCS kernel weight	8	12 - Bake absorption	15
3 - Kernel weight SD	8	13 - Mixograph absorption	5
4 - SKCS kernel diameter	8	14 - Bake mix time	10
5 - Kernel diameter SD	8	15 - Mixograph mix time	5
6 - SKCS hardness	10	16 - Mixograph tolerance	5
7 - Hardness SD	8	17 - Dough weight	
8 - Flour yield	30	18 - Proof height	2
9 - Flour ash	10	19 - Loaf volume	20
10 - Milling score		20 - Volume regression	5
		21 - Crumb grain	25

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
Kharkof	42.2	Very Poor	73.0	44.5	Good	72.2		4,8,10,16,
Scout66	53.9	Good	93.2	54.0	Very Good	87.6		14,15,16,
TAM 107	51.0	Poor	88.2	31.0	Poor	50.3	1AL	14,16,
Trego	54.1	Good	93.6	25.1	Very Poor	40.7		14,15,16,18,
OK Bullet06ERU	54.9	Very Good	94.9	59.1	Very Good	96.0		16,
OK05737W	52.5	Good	90.8	47.5	Very Good	77.1		16,
OK03305	55.0	Very Good	95.2	35.5	Average	57.6		3,11,13,16,
OK03522	52.8	Good	91.4	41.1	Average	66.7		3,
OK02522W	53.3	Good	92.2	41.9	Average	68.1		16,
OK02125	49.7	Very Poor	85.9	27.6	Very Poor	44.7		9,16,19,20,
KS04HW47-3-4	55.7	Very Good	96.4	31.6	Poor	51.3		16,
T151	51.4	Poor	88.9	29.8	Poor	48.4	1AL	14,16,
T153	51.0	Poor	88.2	24.4	Very Poor	39.6	1AL	14,16,19,
T154	49.0	Very Poor	84.8	22.2	Very Poor	36.0		3,14,15,16,18,19,
T158	57.8	Very Good	100.0	27.6	Very Poor	44.9		13,14,15,16,
Art	52.5	Average	90.8	27.8	Very Poor	45.2	1BL	13,16,20,
Hawken	52.9	Good	91.5	57.1	Very Good	92.7		
99x0212-2	51.7	Poor	89.5	31.8	Poor	51.7		14,15,16,19,20,21,
BC98331-03\$-2W	52.4	Average	90.7	47.9	Very Good	77.7		16,
BC98334-10W-8W	54.8	Very Good	94.8	34.5	Poor	56.0		16,
BC98334-04\$-02\$	51.8	Average	89.6	34.7	Average	56.3		13,15,16,19,
HV9W96-1271R-1	51.7	Poor	89.5	45.2	Good	73.3		16,
HV9W02-267W	55.6	Very Good	96.2	47.3	Good	76.9		
HV9W02-112W	56.4	Very Good	97.6	59.3	Very Good	96.3		
HV9W02-271W	51.1	Poor	88.4	34.1	Poor	55.4		16,
KS990498-3-&~2	48.4	Very Poor	83.7	46.3	Good	75.2		1,
KS970093-8-9-#1	54.4	Very Good	94.2	30.5	Poor	49.5		16,
KS980512-2-2	52.3	Average	90.4	29.5	Poor	47.9		11,13,14,16,
KS980512-11-22	51.4	Poor	88.9	28.8	Very Poor	46.8		14,15,16,
Bill Brown	52.2	Average	90.4	55.3	Very Good	89.8		11,

Quality scores and ratings are calculated directly from the relative trait weightings (printed at the top of the page) and are applicable only to the nursery selected.



Hard Winter Wheat Quality Report 2007 SRPN-NHP

1 - Test weight	10	11 - Flour protein	8
2 - SKCS kernel weight	8	12 - Bake absorption	15
3 - Kernel weight SD	8	13 - Mixograph absorption	5
4 - SKCS kernel diameter	8	14 - Bake mix time	10
5 - Kernel diameter SD	8	15 - Mixograph mix time	5
6 - SKCS hardness	10	16 - Mixograph tolerance	5
7 - Hardness SD	8	17 - Dough weight	
8 - Flour yield	30	18 - Proof height	2
9 - Flour ash	10	19 - Loaf volume	20
10 - Milling score		20 - Volume regression	5
		21 - Crumb grain	25

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
CO02W280	52.6	Good	91.1	46.6	Good	75.7		10,
CO03W054	49.6	Very Poor	85.8	38.9	Average	63.2		14,15,
CO03W239	52.5	Average	90.9	45.2	Good	73.3		11,
CO03W269	51.9	Average	89.7	40.1	Average	65.1		1,16,
CO03443	50.9	Very Poor	88.1	61.6	Very Good	100.0		2,4,
NI04420	56.1	Very Good	97.1	37.4	Average	60.7		
NI04421	52.4	Average	90.7	43.4	Good	70.4	1BL	
NE04424	53.3	Good	92.1	44.0	Good	71.5		
NI04428	51.1	Poor	88.4	45.4	Good	73.8		2,16,
SD05W012	43.8	Very Poor	75.8	25.9	Very Poor	42.0		1,4,12,14,15,16,17,19,20,21,
SD05W138	50.9	Very Poor	88.1	40.6	Average	65.9		2,4,12,16,17,
T159	30.6	Very Poor	53.0	34.8	Average	56.5		6,8,16,
TX99A0153-1	53.5	Good	92.5	41.3	Good	67.0	1AL	3,14,15,16,
TX03M1096	50.1	Very Poor	86.6	28.3	Very Poor	46.0		2,4,15,16,
TX01V5136RC	52.4	Average	90.7	29.6	Very Poor	48.0		9,10,14,15,16,
TX01A7340	52.6	Average	91.1	39.5	Average	64.1		10,16,
TX02A0252	51.4	Poor	88.9	34.4	Poor	55.8		15,16,
TX04M410068	55.8	Very Good	96.5	48.1	Very Good	78.1		16,
TX03A0148	51.2	Poor	88.6	50.9	Very Good	82.6		1,10,16,
TX03A0563	54.3	Good	93.9	30.5	Poor	49.5		14,15,16,

2007 SRPN Intraregional Production Zone

Northern High Plains

LINE	Wt/Bu (lb)	SKCS Average Kernel						Hardness			
		Moisture		Weight		Diameter		SKCS	Class	Distribution	
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)				
								(sd)			
Kharkof	59.0	11.5	0.6	27.9	7.5	2.03	0.43	47 19	MIXED	022-031-023-024-03	
Scout 66	59.3	12.3	0.8	32.3	9.3	2.28	0.47	59 18	MIXED	011-016-022-051-03	
TAM-107	58.7	11.5	0.9	32.2	8.6	2.25	0.54	64 18	HARD	005-008-025-062-01	
Trego	60.6	11.2	1.0	32.2	9.3	2.26	0.48	60 18	HARD	009-016-019-056-02	
OK Bullet06ERU	60.1	11.1	1.2	31.4	9.1	2.37	0.53	72 18	HARD	002-006-016-076-01	
OK05737W	58.7	11.4	1.2	29.0	8.4	2.16	0.48	63 18	HARD	005-011-026-058-01	
OK03305	60.9	11.6	0.9	32.3	10.2	2.25	0.51	61 19	HARD	008-012-025-055-02	
OK03522	60.0	11.5	0.7	35.4	11.3	2.39	0.52	64 18	HARD	003-015-019-063-01	
OK02522W	58.9	10.9	0.8	29.2	8.7	2.22	0.51	69 18	HARD	003-007-019-071-01	
OK02125	59.4	10.9	0.8	29.0	8.8	2.18	0.48	72 18	HARD	002-007-014-077-01	
KS04HW47-3-4	59.8	10.7	1.0	32.2	9.5	2.29	0.51	73 18	HARD	001-006-016-077-01	
T151	59.6	10.9	0.8	30.2	9.6	2.13	0.53	65 17	HARD	002-013-021-064-01	
T153	59.6	11.0	0.9	30.1	9.2	2.19	0.52	67 17	HARD	002-009-023-066-01	
T154	59.5	11.2	0.9	30.3	10.2	2.17	0.53	64 17	HARD	003-012-025-060-01	
T158	60.5	11.0	1.0	33.6	8.7	2.34	0.50	61 17	HARD	006-013-025-056-02	
98x0338-13	59.8	11.1	1.2	27.0	7.3	2.07	0.37	63 19	HARD	004-018-020-058-01	
98x0435-15	60.2	10.2	0.6	31.4	9.4	2.30	0.51	63 19	HARD	007-011-020-062-02	
99x0212-2	59.2	10.7	0.6	31.7	9.1	2.27	0.52	71 18	HARD	001-009-016-074-01	
BC98331-03\$-2W	59.6	10.8	0.5	31.4	8.3	2.29	0.48	57 18	HARD	009-022-023-046-02	
BC98334-10W-8W	59.4	10.2	0.6	32.3	8.1	2.24	0.44	60 17	HARD	006-017-026-051-02	
BC98334-04\$-02\$	58.9	10.3	0.6	29.3	7.9	2.15	0.43	60 18	HARD	006-014-024-056-02	
HV9W96-1271R-1	60.0	10.9	0.6	29.7	8.9	2.12	0.50	64 20	HARD	007-013-019-061-02	
HV9W02-267W	60.5	10.6	0.7	35.2	8.8	2.37	0.51	53 18	MIXED	013-021-026-040-03	
HV9W02-112W	60.4	10.5	0.7	31.0	9.3	2.20	0.51	60 18	HARD	006-016-025-053-02	
HV9W02-271W	59.6	10.6	0.6	30.9	9.5	2.26	0.54	50 18	MIXED	022-018-029-031-03	
KS990498-3-&~2	57.6	10.6	0.6	27.5	8.4	2.07	0.47	68 18	HARD	003-009-019-069-01	
KS970093-8-9-#1	61.2	10.6	0.6	31.7	8.3	2.27	0.47	58 19	HARD	009-015-027-049-02	
KS980512-2-2	61.2	10.3	0.6	33.4	9.2	2.30	0.51	59 19	HARD	010-016-022-052-02	
KS980512-11-22	59.5	10.3	0.8	29.2	8.0	2.21	0.47	58 19	HARD	010-018-024-048-02	
CO01385-A1	61.4	10.5	0.7	31.0	9.3	2.29	0.52	65 18	HARD	003-011-023-063-01	
CO02W280	60.0	10.8	0.7	30.3	8.9	2.24	0.49	71 19	HARD	003-006-015-076-01	
CO03W054	59.1	11.0	0.6	30.9	9.2	2.28	0.52	67 19	HARD	003-011-019-067-01	
CO03W239	58.9	10.7	0.7	29.0	8.4	2.12	0.48	63 17	HARD	003-013-027-057-01	
CO03W269	58.3	10.4	0.7	28.7	8.3	2.15	0.48	61 17	HARD	004-017-025-054-01	
CO03443	59.7	10.3	0.7	25.9	7.4	2.04	0.47	67 18	HARD	004-007-022-067-01	
NI04420	61.9	10.0	0.7	30.4	8.0	2.29	0.48	63 18	HARD	007-011-022-060-02	
NI04421	59.9	10.0	0.7	27.5	7.8	2.13	0.43	63 19	HARD	006-011-020-063-02	
NE04424	60.6	10.2	0.7	30.8	8.8	2.31	0.54	59 19	HARD	008-017-025-050-02	
NI04428	60.4	10.2	0.7	26.6	8.2	2.08	0.46	66 19	HARD	004-013-019-064-01	
SD05W012	57.6	9.9	0.8	27.9	8.5	2.02	0.46	63 20	HARD	006-014-024-056-02	
SD05W138	60.1	9.7	0.7	25.2	6.9	1.92	0.37	65 18	HARD	004-011-019-066-01	
T159	58.9	10.0	0.6	28.8	9.7	2.04	0.46	18 19	SOFT	080-012-006-002-05	
TX99A0153-1	60.3	10.4	0.8	32.5	10.3	2.23	0.51	58 17	HARD	007-015-029-049-02	
TX03M1096	58.6	9.7	0.6	26.0	8.5	1.97	0.42	74 18	HARD	002-005-013-080-01	
TX01V5136RC	61.1	10.0	0.7	30.8	9.2	2.33	0.54	70 17	HARD	002-006-016-076-01	

SKCS Average Kernel								Hardness			
LINE	Wt/Bu (lb)	Moisture		Weight		Diameter		SKCS		Class	Distribution
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)	(sd)			
TX01A7340	60.2	10.0	0.7	29.3	8.7	2.17	0.49	72	18	HARD	003-005-016-076-01
TX02A0252	61.1	10.6	0.8	30.2	9.7	2.21	0.47	63	19	HARD	005-014-027-054-01
TX04M410068	59.9	10.5	1.0	29.6	8.3	2.21	0.43	73	17	HARD	001-005-016-078-01
TX03A0148	58.1	10.0	0.6	34.5	9.8	2.35	0.53	61	17	HARD	005-017-023-055-01
TX03A0563	61.3	9.8	0.8	29.1	9.2	2.22	0.48	63	18	HARD	007-011-020-062-02

2007 SRPN Intraregional Production Zone

Northern High Plains

LINE	Wheat		Flour			Noodle Color					
	Protein	Milling Yield	Ash	Protein	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
	(%)	(%)	(%)	(%)							
Kharkof	15.5	67.1	0.49	14.0	0.545	79.55	-1.88	22.87	-14.56	2.32	0.29
Scout 66	14.9	72.4	0.49	13.9	0.557	77.87	-1.36	22.93	-14.51	2.34	0.87
TAM-107	14.3	70.4	0.49	13.1	0.539	79.23	-1.78	24.10	-16.24	2.27	1.38
Trego	14.4	71.2	0.45	13.1	0.589	80.11	-1.82	22.59	-15.06	1.61	2.18
OK Bullet06ERU	15.3	71.8	0.52	14.0	0.461	80.41	-1.70	22.06	-16.24	2.26	1.96
OK05737W	15.1	71.9	0.49	13.9	0.494	80.59	-1.49	21.41	-16.80	1.75	2.61
OK03305	13.4	72.5	0.44	12.1	0.500	79.65	-2.08	24.50	-12.80	1.74	0.76
OK03522	14.4	71.0	0.46	13.0	0.187	80.84	-1.43	21.28	-14.73	1.31	4.44
OK02522W	14.8	72.2	0.50	13.6	0.464	80.29	-1.67	22.00	-15.87	1.95	1.90
OK02125	14.4	70.5	0.57	13.6	0.625	78.62	-1.86	25.50	-15.49	2.25	0.64
KS04HW47-3-4	13.5	72.1	0.49	12.8	0.511	80.95	-2.28	23.22	-14.25	1.99	1.63
T151	13.6	70.7	0.46	12.7	0.498	79.35	-1.94	25.11	-14.63	1.83	2.79
T153	13.8	70.2	0.49	12.6	0.552	78.68	-1.50	23.29	-16.88	2.59	1.21
T154	14.3	70.5	0.50	12.8	0.550	77.78	-1.47	22.97	-16.16	2.19	1.17
T158	13.5	72.1	0.45	12.3	0.505	78.53	-1.73	25.26	-14.28	1.98	0.86
98x0338-13	14.4	70.2	0.50	13.3	0.651	79.30	-1.75	24.29	-14.79	1.74	1.94
98x0435-15	14.1	70.3	0.41	12.9	0.526	79.73	-1.63	23.11	-13.95	1.80	2.41
99x0212-2	14.4	69.9	0.48	13.1	0.529	80.45	-1.88	23.21	-15.11	1.93	2.11
BC98331-03\$-2W	14.2	69.8	0.41	12.7	0.554	79.95	-2.31	24.72	-13.00	1.66	1.24
BC98334-10W-8W	14.8	70.7	0.47	13.4	0.660	79.49	-1.74	24.04	-14.00	1.98	0.20
BC98334-04\$-02\$	14.0	69.6	0.44	12.5	0.729	79.85	-1.37	21.43	-13.56	1.85	1.63
HV9W96-1271R-1	14.5	71.4	0.47	13.4	0.644	79.69	-2.28	25.31	-14.43	2.29	0.62
HV9W02-267W	14.1	71.0	0.40	12.7	0.724	81.87	-2.23	22.51	-13.94	1.76	1.39
HV9W02-112W	13.6	72.8	0.42	12.2	0.684	81.87	-2.23	22.51	-17.03	2.47	1.08
HV9W02-271W	14.0	71.9	0.45	13.0	0.593	81.11	-2.31	23.46	-14.74	2.33	0.86
KS990498-3-&-2	13.6	69.7	0.48	12.7	0.587	80.86	-1.76	22.27	-15.63	2.22	1.68
KS970093-8-9-#1	13.5	70.8	0.45	12.5	0.499	80.72	-2.13	24.55	-13.08	1.80	1.34
KS980512-2-2	13.1	69.5	0.42	11.9	0.507	79.84	-1.71	23.75	-11.35	1.59	0.71
KS980512-11-22	13.9	70.2	0.43	13.0	0.515	80.01	-1.62	21.98	-14.55	2.06	1.51
CO01385-A1	13.3	70.0	0.47	12.1	0.523	81.72	-2.40	23.32	-14.21	2.45	0.84
CO02W280	14.2	70.7	0.50	12.5	0.660	80.92	-1.95	22.76	-15.32	2.54	0.25
CO03W054	13.4	70.2	0.51	12.4	0.670	81.52	-2.14	22.28	-17.01	2.22	1.55
CO03W239	13.2	70.4	0.42	11.9	0.728	80.03	-2.32	24.55	-13.37	2.38	-0.49
CO03W269	14.5	70.7	0.44	13.1	0.586	80.36	-2.01	22.96	-13.86	2.23	0.14
CO03443	14.8	69.4	0.44	13.5	0.353	80.51	-2.26	25.31	-12.48	1.90	1.67
NI04420	14.0	70.8	0.45	13.0	0.520	80.35	-1.66	22.37	-13.35	1.62	2.02
NI04421	13.6	70.4	0.46	13.3	0.441	61.27	0.08	11.20	-17.02	1.57	0.82
NE04424	14.0	71.8	0.47	13.0	0.487	78.81	-1.77	22.40	-13.47	1.79	1.97
NI04428	14.6	70.0	0.46	13.2	0.609	75.74	-1.32	19.07	-16.21	1.74	3.50
SD05W012	14.2	68.6	0.51	13.2	0.360	78.10	-1.77	23.60	-13.80	1.98	1.02
SD05W138	14.8	69.5	0.50	13.6	0.512	79.31	-2.29	25.88	-14.01	2.15	0.31
T159	15.0	61.5	0.44	13.7	0.185	82.39	-2.01	21.17	-14.25	3.14	3.56

LINE	Wheat		Flour			Noodle Color					
	Protein	Milling	Ash	Protein	PPO	L @ 0	a @ 0	b @ 0	Delta L	Delta a	Delta b
	(%)	Yield							24 hrs	24 hrs	24 hrs
	(%)	(%)	(%)	(%)							
TX99A0153-1	13.9	71.7	0.46	12.7	0.502	79.75	-2.33	25.05	-14.61	2.63	-0.24
TX03M1096	14.3	69.6	0.47	12.6	0.677	79.34	-2.20	25.40	-14.60	2.48	0.82
TX01V5136RC	14.8	70.4	0.53	13.3	0.624	79.71	-2.00	24.17	-16.78	2.00	1.36
TX01A7340	15.1	70.6	0.51	13.7	0.388	78.36	-1.66	24.27	-17.60	2.21	0.92
TX02A0252	13.6	70.3	0.48	12.4	0.536	79.54	-1.89	23.83	-15.04	2.45	1.06
TX04M410068	14.8	71.1	0.51	13.8	0.392	78.23	-1.72	24.11	-15.91	2.27	-0.32
TX03A0148	14.9	70.2	0.44	12.5	0.408	79.70	-1.92	25.34	-13.36	2.26	1.57
TX03A0563	14.2	71.0	0.44	13.0	0.494	79.92	-1.75	22.87	-14.75	2.31	0.49

2007 SRPN Intraregional Production Zone

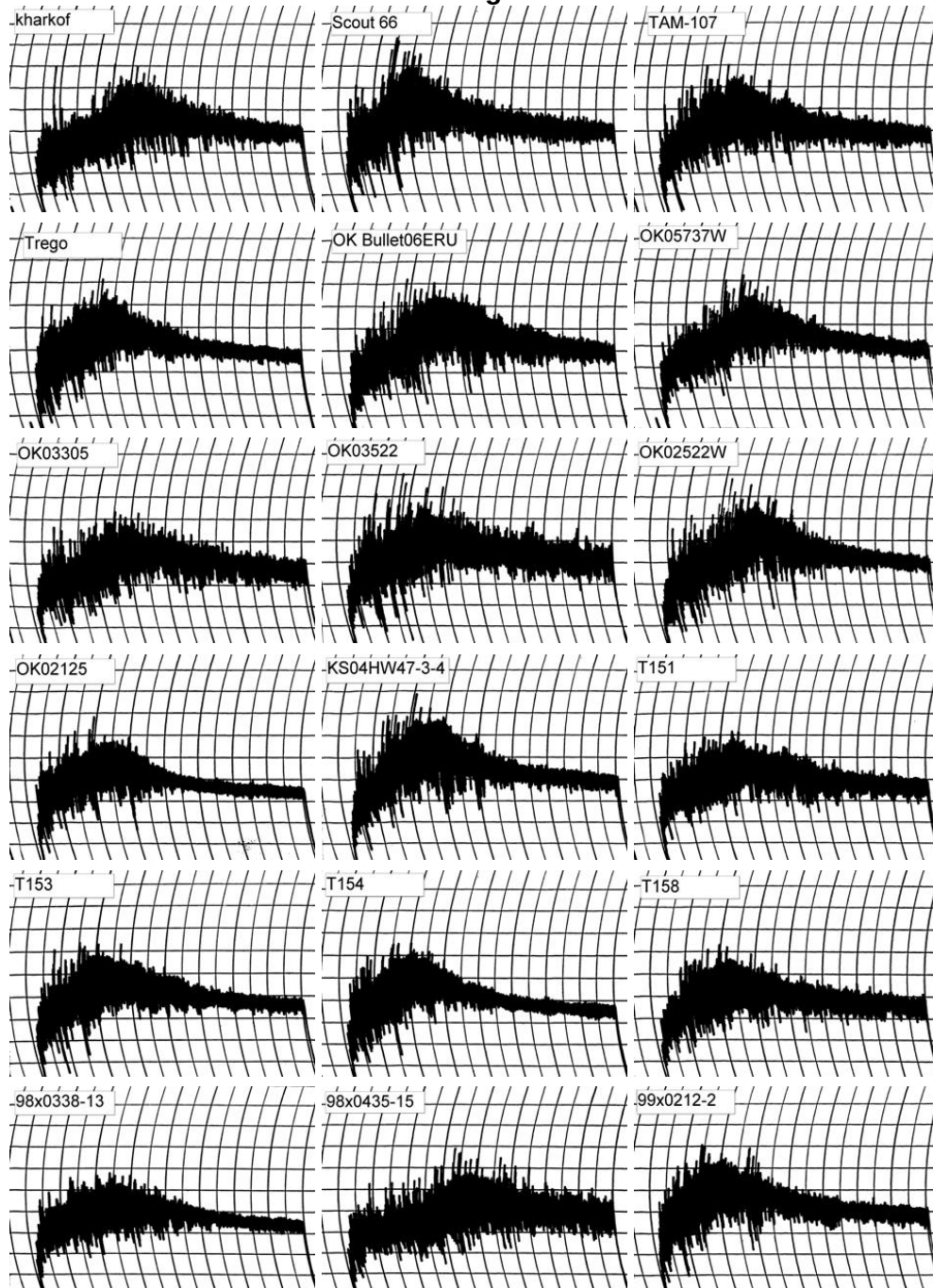
Northern High Plains

Line	Flour Protein (%)	Mixograph			
		Absorption (%)	As-Is (min)	Corrected (min)	Tolerance
Kharkof	14.0	66.3	3.13	3.13	1
Scout 66	13.9	66.1	2.00	2.00	1
TAM-107	13.1	63.9	2.50	2.50	1
Trego	13.1	64.8	2.25	2.25	0
OK Bullet06ERU	14.0	66.3	2.88	2.88	1
OK05737W	13.9	66.1	2.88	2.88	0
OK03305	12.1	62.1	2.75	2.75	2
OK03522	13.0	64.6	2.50	2.50	3
OK02522W	13.6	65.7	2.88	2.88	0
OK02125	13.6	64.6	2.50	2.50	0
KS04HW47-3-4	12.8	64.2	2.75	2.75	0
T151	12.7	63.2	2.50	2.50	1
T153	12.6	62.9	2.38	2.38	0
T154	12.8	63.3	2.13	2.13	0
T158	12.3	62.5	2.13	2.13	1
98x0338-13	13.3	62.6	2.50	2.50	0
98x0435-15	12.9	64.4	3.75	3.75	4
99x0212-2	13.1	64.7	1.88	1.88	0
BC98331-03\$-2W	12.7	64.2	2.38	2.38	2
BC98334-10W-8W	13.4	65.2	2.50	2.50	2
BC98334-04\$-02\$	12.5	62.7	2.13	2.13	0
HV9W96-1271R-1	13.4	64.2	3.00	3.00	0
HV9W02-267W	12.7	64.1	4.13	4.13	4
HV9W02-112W	12.2	63.2	4.00	4.00	4
HV9W02-271W	13.0	64.6	2.50	2.50	0
KS990498-3-&~2	12.7	64.1	4.13	4.13	4
KS970093-8-9-#1	12.5	63.8	2.38	2.38	0
KS980512-2-2	11.9	62.7	2.38	2.34	1
KS980512-11-22	13.0	64.6	2.13	2.13	0
CO01385-A1	12.1	63.0	3.50	3.50	3
CO02W280	12.5	63.8	4.00	4.00	4
CO03W054	12.4	65.7	5.13	5.13	6
CO03W239	11.9	64.2	4.38	4.32	5
CO03W269	13.1	64.8	3.00	3.00	0
CO03443	13.5	65.4	3.38	3.38	3
NI04420	13.0	64.7	2.88	2.88	3
NI04421	13.3	63.6	3.88	3.88	4
NE04424	13.0	64.6	3.88	3.88	3
NI04428	13.2	63.9	3.38	3.38	1
SD05W012	13.2	63.5	1.50	1.50	0
SD05W138	13.6	64.1	2.63	2.63	0
T159	13.7	64.3	2.50	2.50	2

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
TX99A0153-1	12.7	64.0	2.25	2.25	1
TX03M1096	12.6	64.0	2.25	2.25	1
TX01V5136RC	13.3	65.1	2.13	2.13	1
TX01A7340	13.7	65.7	2.63	2.63	2
TX02A0252	12.4	63.5	2.25	2.25	1
TX04M410068	13.8	66.0	2.38	2.38	0
TX03A0148	12.5	63.8	2.63	2.63	2
TX03A0563	13.0	64.6	2.00	2.00	1

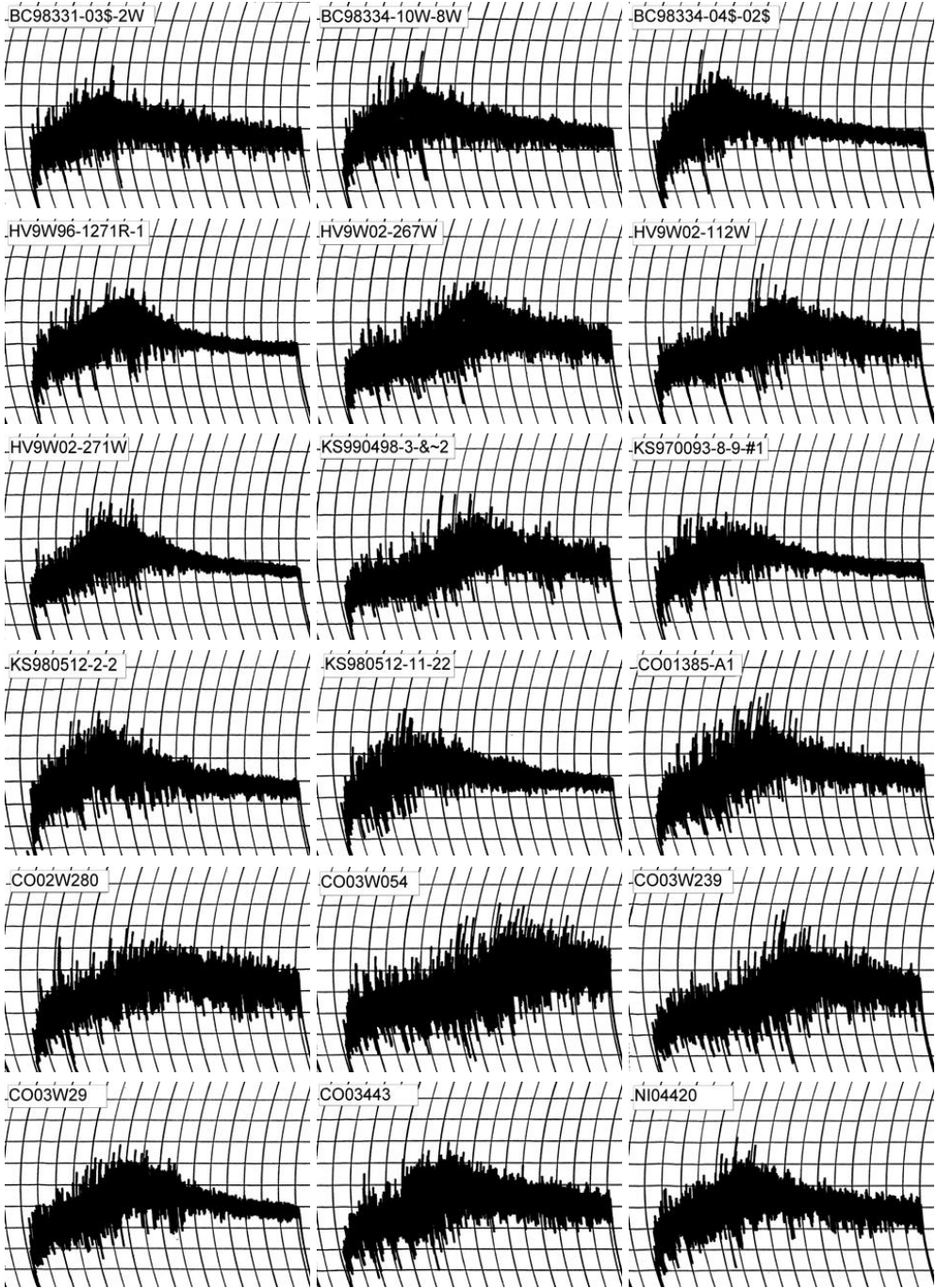
2007 SRPN Intraregional Production Zone

Northern High Plains



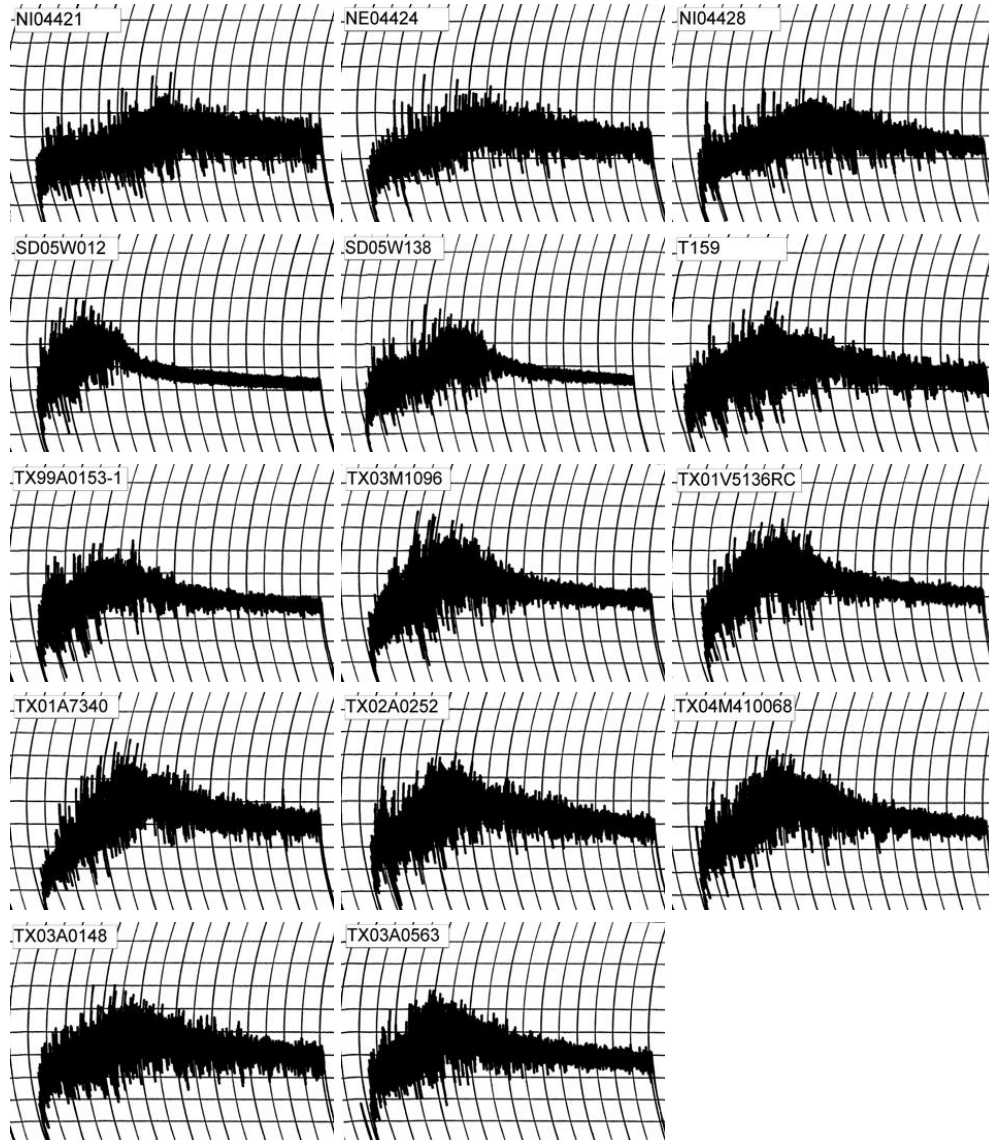
2007 SRPN Intraregional Production Zone

Northern High Plains



2007 SRPN Intraregional Production Zone

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2007 SRPN Intraregional Production Zone

Northern High Plains

Line	RVA							Pasting Temp (Deg. C)
	Stirring Number (RVU)	Peak Viscosity (RVU)	Trough Viscosity (RVU)	Breakdown (RVU)	Final Viscosity (RVU)	Set back (RVU)	Peak Time (min)	
Kharkof	146.67	209.25	153.33	55.92	265.42	112.08	6.40	
Scout 66	138.83	190.17	138.83	51.33	247.83	109.00	6.27	
TAM-107	136.17	225.92	171.17	54.75	285.92	114.75	6.53	
Trego	125.92	241.58	165.33	76.25	266.33	101.00	6.47	
OK Bullet06ERU	135.92	207.75	146.17	61.58	256.75	110.58	6.33	
OK05737W	137.08	228.58	166.42	62.17	285.25	118.83	6.40	
OK03305	108.08	212.00	130.75	81.25	228.33	97.58	6.13	
OK03522	128.92	172.17	130.17	42.00	239.83	109.67	6.20	
OK02522W	130.58	217.92	158.58	59.33	272.58	114.00	6.40	
OK02125	140.08	187.08	146.67	40.42	258.50	111.83	6.40	
KS04HW47-3-4	132.33	190.08	141.25	48.83	255.50	114.25	6.27	
T151	132.25	215.00	161.33	53.67	275.75	114.42	6.47	
T153	138.50	204.92	155.25	49.67	263.75	108.50	6.33	
T154	140.17	191.08	143.08	48.00	252.17	109.08	6.40	
T158	127.75	212.42	156.42	56.00	269.50	113.08	6.40	
98x0338-13	138.25	198.67	151.17	47.50	264.00	112.83	6.47	
98x0435-15	138.92	192.33	146.00	46.33	261.33	115.33	6.33	
99x0212-2	130.75	175.08	131.58	43.50	241.75	110.17	6.20	
BC98331-03\$-2W	147.00	185.33	143.08	42.25	257.58	114.50	6.33	
BC98334-10W-8W	130.75	180.42	128.67	51.75	235.25	106.58	6.20	
BC98334-04\$-02\$	144.08	210.67	152.50	58.17	272.17	119.67	6.33	
HV9W96-1271R-1	131.17	180.83	137.17	43.67	252.58	115.42	6.27	
HV9W02-267W	149.25	217.00	165.50	51.50	284.42	118.92	6.47	
HV9W02-112W	126.75	258.08	171.33	86.75	278.50	107.17	6.33	
HV9W02-271W	137.42	203.42	143.25	60.17	261.58	118.33	6.27	
KS990498-3-&~2	129.08	205.83	148.25	57.58	265.25	117.00	6.27	
KS970093-8-9-#1	180.75	230.67	185.17	45.50	293.50	108.33	6.60	
KS980512-2-2	129.25	212.00	157.08	54.92	274.75	117.67	6.33	
KS980512-11-22	134.50	200.33	148.58	51.75	266.33	117.75	6.33	
CO01385-A1	133.42	186.42	142.58	43.83	266.67	124.08	6.20	
CO02W280	142.42	202.33	139.58	62.75	250.08	110.50	6.27	
CO03W054	147.25	209.00	152.25	56.75	268.42	116.17	6.33	
CO03W239	122.92	221.00	142.75	78.25	253.00	110.25	6.27	
CO03W269	128.92	202.33	134.67	67.67	238.58	103.92	6.33	
CO03443	142.58	195.08	143.67	51.42	252.50	108.83	6.33	
NI04420	147.50	170.08	135.75	34.33	239.33	103.58	6.40	
NI04421	143.25	177.25	139.50	37.75	262.75	123.25	6.33	
NE04424	144.42	174.67	137.25	37.42	240.50	103.25	6.40	
NI04428	152.25	173.33	150.25	23.08	264.83	114.58	6.53	
SD05W012	143.50	175.25	129.75	45.50	240.33	110.58	6.27	
SD05W138	144.50	193.67	149.00	44.67	260.67	111.67	6.40	
T159	149.50	246.42	183.83	62.58	292.33	108.50	6.53	
TX99A0153-1	143.42	194.50	153.42	41.08	272.08	118.67	6.33	
TX03M1096	131.00	197.67	149.92	47.75	276.25	126.33	6.20	
TX01V5136RC	144.75	183.08	141.00	42.08	255.92	114.92	6.33	
TX01A7340	141.33	223.92	151.67	72.25	248.83	97.17	6.47	

RVA								
	Stirring Number	Peak Viscosity	Trough Viscosity	Breakdown	Final Viscosity	Set back	Peak Time	Pasting Temp
Line	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(min)	(Deg. C)
TX02A0252	140.08	192.50	147.25	45.25	262.17	114.92	6.33	
TX04M410068	140.25	162.67	124.17	38.50	230.00	105.83	6.20	
TX03A0148	158.58	218.92	168.08	50.83	278.75	110.67	6.53	
TX03A0563	142.67	182.50	148.33	34.17	268.33	120.00	6.33	

2007 SRPN Intraregional Production Zone

Northern High Plains

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	14.0	62.3	4.13	4.13	171.2	8.0	4.5	965	6.4	60
Scout 66	13.9	62.4	2.50	2.50	171.9	7.8	5.0	935	6.3	58
TAM-107	13.1	59.7	2.50	2.50	169.2	7.6	2.8	930	6.4	62
Trego	13.1	58.7	2.38	2.38	168.7	7.1	2.5	870	5.9	56
OK Bullet06ERU	14.0	62.4	3.00	3.00	171.9	7.8	5.0	960	6.5	60
OK05737W	13.9	61.7	3.25	3.25	171.4	7.8	3.0	935	6.4	58
OK03305	12.1	61.4	3.25	3.25	170.7	7.6	3.8	930	6.3	69
OK03522	13.0	62.7	3.50	3.50	172.5	8.0	3.2	965	6.5	66
OK02522W	13.6	63.2	3.13	3.13	173.7	8.0	4.2	1000	6.6	66
OK02125	13.6	59.3	2.75	2.75	169.2	7.4	2.8	865	5.8	53
KS04HW47-3-4	12.8	61.0	2.75	2.75	170.8	7.4	3.5	910	6.1	62
T151	12.7	59.9	2.50	2.50	169.5	7.4	2.8	920	6.3	64
T153	12.6	59.8	2.38	2.38	169.5	7.3	2.8	850	5.8	57
T154	12.8	58.4	2.25	2.25	168.4	7.1	2.5	845	5.8	56
T158	12.3	59.9	2.38	2.38	170.0	7.3	3.2	915	6.2	66
98x0338-13	13.3	60.7	2.69	2.69	173.2	7.5	2.5	868	5.9	55
98x0435-15	12.9	62.9	5.25	5.25	172.1	7.6	3.0	950	6.4	66
99x0212-2	13.1	62.0	2.50	2.50	173.0	7.5	2.0	858	5.8	55
BC98331-03\$-2W	12.7	62.8	3.00	3.00	172.9	7.4	4.0	885	5.8	60
BC98334-10W-8W	13.4	61.9	2.75	2.75	171.6	7.6	4.5	925	6.2	60
BC98334-04\$-02\$	12.5	60.1	2.75	2.75	169.9	7.4	3.0	845	5.8	58
HV9W96-1271R-1	13.4	60.0	3.13	3.13	169.8	7.5	3.0	950	6.5	63
HV9W02-267W	12.7	63.4	4.75	4.75	172.9	7.5	3.2	960	6.6	68
HV9W02-112W	12.2	61.7	4.50	4.50	171.1	7.5	4.0	940	6.5	70
HV9W02-271W	13.0	60.0	3.13	3.13	169.8	7.5	4.5	955	6.6	65
KS990498-3-&~2	12.7	60.9	4.88	4.88	170.2	7.8	4.5	965	6.6	69
KS970093-8-9-#1	12.5	60.1	2.75	2.75	169.1	7.9	3.5	920	6.3	65
KS980512-2-2	11.9	60.0	2.63	2.58	169.6	7.7	3.8	915	6.2	69
KS980512-11-22	13.0	59.1	2.63	2.63	168.7	7.5	3.8	925	6.3	63
CO01385-A1	12.1	62.1	3.75	3.75	171.4	7.6	4.0	925	6.2	69
CO02W280	12.5	61.8	4.50	4.50	170.8	7.8	4.5	970	6.6	70
CO03W054	12.4	63.7	8.00	8.00	172.4	7.6	4.5	965	6.5	71
CO03W239	11.9	63.0	5.50	5.42	172.2	7.5	4.2	950	6.4	73
CO03W269	13.1	60.0	4.00	4.00	169.6	7.7	4.5	980	6.7	67
CO03443	13.5	63.3	4.25	4.25	173.1	7.8	4.0	970	6.5	64
NI04420	13.0	59.9	3.38	3.38	169.3	7.7	3.2	940	6.4	64
NI04421	13.3	60.1	4.00	4.00	169.9	7.9	2.8	965	6.6	65
NE04424	13.0	59.7	3.50	3.50	169.9	7.9	3.8	1020	6.9	72
NI04428	13.2	58.9	3.63	3.63	168.5	7.6	3.0	915	6.3	61
SD05W012	13.2	58.0	2.13	2.13	167.8	7.3	2.0	850	5.9	54
SD05W138	13.6	57.9	3.00	3.00	167.7	7.5	3.0	925	6.4	59
T159	13.7	59.2	3.00	3.00	168.9	7.8	3.5	950	6.6	61
TX99A0153-1	12.7	60.7	2.50	2.50	170.3	7.5	3.0	935	6.4	66
TX03M1096	12.6	60.0	2.75	2.75	169.4	7.4	3.8	885	6.0	61

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
TX01V5136RC	13.3	60.1	2.50	2.50	169.8	7.5	2.5	915	6.2	60
TX01A7340	13.7	61.0	3.25	3.25	170.4	7.9	4.5	985	6.6	64
TX02A0252	12.4	59.8	3.50	3.50	169.3	7.6	3.8	950	6.5	69
TX04M410068	13.8	60.0	3.13	3.13	169.5	7.6	4.0	925	6.2	58
TX03A0148	12.5	60.9	3.25	3.25	170.7	7.3	4.0	950	6.5	68
TX03A0563	13.0	60.1	2.50	2.50	169.8	7.4	3.8	945	6.5	64



Hard Winter Wheat Quality Report 2007 SRPN-SCP

1 - Test weight	10	11 - Flour protein	8
2 - SKCS kernel weight	8	12 - Bake absorption	15
3 - Kernel weight SD	8	13 - Mixograph absorption	5
4 - SKCS kernel diameter	8	14 - Bake mix time	10
5 - Kernel diameter SD	8	15 - Mixograph mix time	5
6 - SKCS hardness	10	16 - Mixograph tolerance	5
7 - Hardness SD	8	17 - Dough weight	
8 - Flour yield	30	18 - Proof height	2
9 - Flour ash	10	19 - Loaf volume	20
10 - Milling score		20 - Volume regression	5
		21 - Crumb grain	25

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
Kharkof	47.2	Very Poor	69.3	46.1	Good	75.6		2,4,10,
Scout66	61.4	Very Good	90.0	60.4	Very Good	99.1		
TAM 107	52.9	Poor	77.6	60.9	Very Good	100.0	1AL	
Trego	55.6	Average	81.6	46.2	Very Good	75.8		16,
OK Bullet06ERU	60.6	Very Good	88.8	35.5	Poor	58.2		16,
OK05737W	59.3	Good	86.9	35.0	Poor	57.4		16,
OK03305	63.4	Very Good	93.0	29.6	Very Poor	48.6		11,13,16,
OK03522	68.2	Very Good	100.0	41.0	Good	67.2		
OK02522W	60.1	Good	88.2	56.9	Very Good	93.3		16,
OK02125	59.7	Good	87.6	44.4	Good	72.8		9,16,
KS04HW47-3-4	58.2	Good	85.3	32.2	Very Poor	52.8		16,
T151	60.8	Very Good	89.2	39.4	Average	64.6	1AL	
T153	57.1	Average	83.7	40.6	Average	66.6	1AL	3,
T154	56.6	Average	83.0	39.9	Average	65.5		16,
T158	62.0	Very Good	90.9	32.8	Poor	53.8		12,
Art	55.6	Average	81.6	43.9	Good	72.1	1BL	10,16,17,
Hawken	54.0	Poor	79.2	34.9	Poor	57.2		14,15,
99x0212-2	55.2	Poor	81.0	46.6	Good	76.4		16,
BC98331-03\$-2W	55.5	Average	81.5	36.3	Poor	59.6		18,
BC98334-10W-8W	51.4	Very Poor	75.5	33.4	Poor	54.8		16,
BC98334-04\$-02\$	55.0	Poor	80.6	27.1	Very Poor	44.4		16,18,
HV9W96-1271R-1	57.0	Average	83.6	38.6	Average	63.4		16,
HV9W02-267W	61.2	Very Good	89.8	37.7	Poor	61.9		
HV9W02-112W	56.2	Average	82.5	56.8	Very Good	93.1		11,
HV9W02-271W	49.9	Very Poor	73.3	32.7	Poor	53.7		16,
KS990498-3-&~2	52.5	Poor	77.0	58.5	Very Good	96.1		1,
KS970093-8-9-#1	59.6	Good	87.5	38.3	Average	62.8		12,16,17,
KS980512-2-2	57.4	Good	84.1	30.5	Very Poor	50.1		
KS980512-11-22	59.5	Good	87.3	46.3	Very Good	76.0		16,
Bill Brown	53.0	Poor	77.7	38.0	Average	62.3		5,

Quality scores and ratings are calculated directly from the relative trait weightings (printed at the top of the page) and are applicable only to the nursery selected.



Hard Winter Wheat Quality Report 2007 SRPN-SCP

1 - Test weight	10	11 - Flour protein	8
2 - SKCS kernel weight	8	12 - Bake absorption	15
3 - Kernel weight SD	8	13 - Mixograph absorption	5
4 - SKCS kernel diameter	8	14 - Bake mix time	10
5 - Kernel diameter SD	8	15 - Mixograph mix time	5
6 - SKCS hardness	10	16 - Mixograph tolerance	5
7 - Hardness SD	8	17 - Dough weight	
8 - Flour yield	30	18 - Proof height	2
9 - Flour ash	10	19 - Loaf volume	20
10 - Milling score		20 - Volume regression	5
		21 - Crumb grain	25

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
CO02W280	51.4	Very Poor	75.5	40.9	Average	67.2		
CO03W054	52.6	Poor	77.1	26.2	Very Poor	42.9		14,15,
CO03W239	47.3	Very Poor	69.3	29.3	Very Poor	48.1		1,8,15,
CO03W269	53.9	Poor	79.0	45.3	Good	74.3		1,16,
CO03443	50.0	Very Poor	73.3	46.5	Good	76.3		1,2,4,
NI04420	55.3	Poor	81.1	49.7	Very Good	81.5		
NI04421	52.0	Very Poor	76.3	33.7	Poor	55.4	1BL	2,
NE04424	56.7	Average	83.2	35.9	Poor	58.9		
NI04428	55.2	Average	81.0	44.7	Good	73.4		13,
SD05W012	46.7	Very Poor	68.5	26.4	Very Poor	43.3		1,4,9,12,16,17,19,20,21,
SD05W138	50.4	Very Poor	73.9	31.4	Very Poor	51.6		3,9,16,20,
T159	42.4	Very Poor	62.3	39.2	Average	64.2		6,8,
TX99A0153-1	54.3	Poor	79.7	30.5	Very Poor	50.1	1AL	3,5,11,13,16,
TX03M1096	57.5	Good	84.4	40.0	Good	65.6		14,16,
TX01V5136RC	63.3	Very Good	92.8	30.8	Very Poor	50.6		
TX01A7340	60.6	Good	89.0	55.0	Very Good	90.2		
TX02A0252	59.3	Good	86.9	47.7	Very Good	78.3		
TX04M410068	62.4	Very Good	91.5	38.6	Average	63.3		21,
TX03A0148	55.5	Average	81.3	43.4	Good	71.3		3,5,
TX03A0563	61.4	Very Good	90.1	37.4	Average	61.3		

2007 SRPN Intraregional Production Zone

South Central Plains

LINE	Wt/Bu (lb)	SKCS Average Kernel						Hardness			
		Moisture		Weight		Diameter		SKCS	Class	Distribution	
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)				
								(sd)			
Kharkof	59.7	12.7	0.5	26.7	8.1	2.05	0.47	52 20	MIXED	017-022-026-035-03	
Scout 66	60.5	12.2	0.4	32.0	8.1	2.33	0.47	57 16	HARD	006-018-029-047-02	
TAM-107	58.2	12.1	0.3	32.6	9.0	2.29	0.52	58 18	HARD	008-017-028-047-02	
Trego	60.1	12.1	0.3	31.5	8.4	2.28	0.45	58 19	HARD	007-021-027-045-02	
OK Bullet06ERU	60.0	12.0	0.4	33.3	8.4	2.49	0.52	66 17	HARD	004-005-024-067-01	
OK05737W	59.6	12.0	0.3	33.4	8.4	2.43	0.55	56 16	HARD	006-021-033-040-02	
OK03305	62.1	12.0	0.5	34.3	8.9	2.38	0.52	61 18	HARD	007-011-028-054-02	
OK03522	61.0	12.2	0.3	37.3	8.1	2.59	0.46	65 16	HARD	003-010-022-065-01	
OK02522W	59.6	9.7	0.5	31.6	8.4	2.44	0.55	62 17	HARD	005-013-020-062-01	
OK02125	60.2	10.6	0.4	30.3	7.3	2.30	0.43	71 16	HARD	002-005-012-081-01	
KS04HW47-3-4	58.8	10.8	0.5	33.1	8.8	2.40	0.51	69 18	HARD	003-010-017-070-01	
T151	60.7	11.0	0.5	33.3	8.6	2.31	0.53	61 16	HARD	005-010-030-055-01	
T153	60.1	11.3	0.4	34.6	9.9	2.40	0.47	61 16	HARD	005-012-024-059-01	
T154	60.5	11.4	0.3	31.5	9.6	2.28	0.49	63 16	HARD	002-011-026-061-01	
T158	61.1	11.4	0.3	34.3	8.7	2.39	0.53	56 16	HARD	008-019-033-040-02	
98x0338-13	59.7	11.9	0.3	28.0	7.7	2.19	0.44	56 16	HARD	007-017-035-041-02	
98x0435-15	59.9	11.7	0.4	29.1	9.6	2.21	0.52	64 18	HARD	003-011-022-064-01	
99x0212-2	59.5	11.7	0.4	32.1	8.5	2.33	0.52	66 19	HARD	003-012-019-066-01	
BC98331-03\$-2W	58.0	11.6	0.3	31.7	7.8	2.38	0.50	53 18	MIXED	012-028-027-033-03	
BC98334-10W-8W	58.0	11.7	0.3	31.7	8.9	2.24	0.50	49 17	MIXED	017-025-029-029-03	
BC98334-04\$-02\$	58.3	11.4	0.3	30.9	7.7	2.19	0.45	55 17	HARD	010-021-028-041-02	
HV9W96-1271R-1	59.0	12.2	0.4	31.3	8.5	2.12	0.47	59 18	HARD	008-013-030-049-02	
HV9W02-267W	59.3	11.6	0.3	36.6	8.2	2.37	0.49	46 16	MIXED	023-032-023-022-03	
HV9W02-112W	58.5	11.8	0.3	31.6	9.3	2.24	0.50	54 17	HARD	010-025-024-041-02	
HV9W02-271W	58.4	11.6	0.3	31.0	9.0	2.26	0.50	47 18	MIXED	023-024-027-026-03	
KS990498-3-&~2	57.2	12.0	0.3	28.6	7.6	2.12	0.47	61 16	HARD	004-015-024-057-01	
KS970093-8-9-#1	61.3	11.9	0.3	31.1	8.6	2.27	0.47	55 16	HARD	007-024-032-037-02	
KS980512-2-2	59.9	11.7	0.3	33.8	8.0	2.33	0.51	51 16	MIXED	013-026-029-032-03	
KS980512-11-22	59.4	11.5	0.4	30.5	7.3	2.31	0.47	53 16	HARD	010-023-035-032-02	
CO01385-A1	60.5	11.7	0.4	31.9	9.6	2.35	0.56	59 19	HARD	008-015-024-053-02	
CO02W280	58.6	11.6	0.4	27.7	8.4	2.15	0.49	70 19	HARD	002-007-018-073-01	
CO03W054	58.9	12.0	0.4	31.5	9.8	2.32	0.54	68 18	HARD	003-010-017-070-01	
CO03W239	56.6	12.0	0.4	28.7	9.1	2.16	0.53	61 18	HARD	006-017-025-052-02	
CO03W269	57.5	11.8	0.4	27.5	7.8	2.12	0.43	60 17	HARD	006-014-028-052-02	
CO03443	57.4	12.2	0.4	23.6	7.5	1.94	0.45	67 18	HARD	002-010-023-065-01	
NI04420	60.5	12.2	0.4	31.3	9.3	2.35	0.53	63 17	HARD	005-012-024-059-01	
NI04421	59.1	12.1	0.3	26.9	8.8	2.10	0.47	61 16	HARD	005-016-025-054-01	
NE04424	60.9	12.1	0.4	33.9	9.7	2.46	0.54	57 18	HARD	007-021-027-045-02	
NI04428	58.4	11.6	0.3	27.8	8.4	2.13	0.47	62 15	HARD	003-012-027-058-01	
SD05W012	56.9	12.3	0.4	29.1	9.6	2.06	0.48	59 18	HARD	009-017-024-050-02	
SD05W138	59.1	12.3	0.3	32.1	10.2	2.24	0.55	57 16	HARD	005-021-032-042-01	
T159	59.6	11.7	0.3	29.2	8.2	2.10	0.45	12 19	SOFT	088-009-002-001-05	
TX99A0153-1	60.1	12.4	0.3	32.5	10.1	2.27	0.57	56 17	HARD	009-015-033-043-02	
TX03M1096	59.7	11.9	0.3	28.9	7.0	2.10	0.45	65 16	HARD	003-007-025-065-01	
TX01V5136RC	62.1	12.1	0.3	32.6	8.1	2.43	0.47	72 15	HARD	000-005-014-081-01	

LINE	Wt/Bu (lb)	SKCS Average Kernel						Hardness			
		Moisture		Weight		Diameter		SKCS		Class	Distribution
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)	(sd)			
TX01A7340	61.1	11.7	0.3	31.8	8.5	2.29	0.46	69	14	HARD	001-005-018-076-01
TX02A0252	61.0	12.0	0.3	32.8	9.0	2.37	0.46	57	16	HARD	006-019-031-044-02
TX04M410068	61.3	12.1	0.4	32.4	9.4	2.39	0.52	69	16	HARD	002-005-020-073-01
TX03A0148	58.7	11.8	0.3	39.7	10.7	2.62	0.57	53	16	HARD	008-026-028-038-02
TX03A0563	60.5	11.4	0.3	28.5	7.2	2.21	0.43	58	15	HARD	004-019-031-046-01

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LINE	Wheat		Flour			Noodle Color					
	Protein	Milling Yield	Ash	Protein	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
	(%)	(%)	(%)	(%)							
Kharkof	14.2	70.3	0.48	12.7	0.633	80.51	-2.21	23.64	-14.12	2.76	-0.63
Scout 66	13.1	74.2	0.45	12.2	0.720	80.36	-2.04	23.06	-12.98	2.84	-0.26
TAM-107	12.3	71.5	0.43	11.2	0.695	78.93	-2.15	25.77	-12.30	2.66	-0.07
Trego	12.4	71.7	0.42	10.9	0.793	80.32	-2.07	22.00	-13.11	2.30	1.81
OK Bullet06ERU	14.1	73.1	0.46	12.4	0.542	78.76	-1.37	21.73	-12.30	2.33	-0.02
OK05737W	13.3	73.9	0.45	11.8	0.691	80.52	-1.36	19.18	-15.60	2.47	4.03
OK03305	11.9	75.5	0.45	10.6	0.548	78.29	-1.85	23.60	-11.31	2.74	-0.86
OK03522	12.7	74.0	0.40	11.3	0.214	81.64	-1.87	20.48	-14.85	1.84	4.61
OK02522W	13.3	74.3	0.45	12.1	0.629	78.79	-1.37	21.58	-13.79	1.89	3.64
OK02125	13.5	72.1	0.51	12.3	0.752	79.59	-1.90	23.85	-13.81	1.69	3.58
KS04HW47-3-4	12.4	73.4	0.46	11.1	0.577	80.97	-1.92	21.52	-12.69	1.37	3.73
T151	12.2	73.5	0.44	11.0	0.654	80.19	-2.46	25.02	-10.58	1.07	3.88
T153	12.7	71.8	0.45	11.2	0.689	78.78	-2.01	24.05	-12.29	1.55	1.18
T154	12.5	72.0	0.45	11.4	0.625	80.12	-2.13	22.71	-12.84	1.53	2.58
T158	12.2	74.3	0.42	11.0	0.616	79.36	-1.89	23.51	-11.10	1.50	3.40
98x0338-13	14.1	72.1	0.48	12.5	0.812	79.33	-1.61	21.95	-14.28	1.47	4.92
98x0435-15	13.9	72.3	0.44	12.4	0.717	79.52	-1.71	22.21	-12.08	1.12	4.10
99x0212-2	13.1	71.9	0.47	11.8	0.618	79.94	-1.93	23.18	-12.62	1.42	3.18
BC98331-03\$-2W	12.4	72.1	0.39	11.3	0.802	79.42	-2.09	23.44	-10.81	1.08	1.90
BC98334-10W-8W	13.3	71.3	0.42	12.0	0.835	79.47	-1.65	21.22	-12.46	1.20	2.27
BC98334-04\$-02\$	12.4	70.9	0.38	10.7	0.927	80.32	-1.84	21.21	-9.74	1.04	2.33
HV9W96-1271R-1	12.9	74.3	0.48	11.3	0.847	80.05	-2.48	24.54	-11.82	1.16	2.32
HV9W02-267W	12.3	74.2	0.40	11.0	0.539	82.03	-2.04	20.60	-12.64	1.01	4.77
HV9W02-112W	11.9	74.0	0.43	10.5	0.806	80.82	-2.29	22.84	-12.32	1.48	2.61
HV9W02-271W	12.7	71.3	0.44	11.5	0.757	80.94	-2.27	23.08	-11.53	1.27	1.72
KS990498-3-&-2	12.5	71.7	0.49	11.2	0.669	81.09	-1.92	21.20	-12.20	0.99	4.92
KS970093-8-9-#1	12.6	73.1	0.41	11.3	0.685	81.17	-2.15	22.17	-10.28	0.98	4.37
KS980512-2-2	12.2	71.6	0.40	10.7	0.688	79.77	-1.51	20.89	-10.38	0.99	3.94
KS980512-11-22	12.7	73.2	0.42	11.4	0.706	81.21	-1.81	19.99	-12.22	1.37	4.62
CO01385-A1	12.0	71.8	0.46	10.7	0.703	82.02	-2.25	20.98	-12.15	0.92	6.07
CO02W280	11.8	70.9	0.48	10.7	0.775	82.32	-2.11	20.45	-14.63	1.36	4.39
CO03W054	12.1	71.8	0.49	10.8	0.809	82.11	-2.18	21.48	-12.75	1.16	5.06
CO03W239	12.6	69.8	0.40	11.2	0.903	79.85	-2.36	23.50	-13.34	1.61	0.91
CO03W269	12.8	71.7	0.43	11.7	0.801	80.15	-2.22	22.73	-12.15	1.33	1.42
CO03443	12.3	71.3	0.48	11.1	0.490	81.21	-2.42	24.28	-11.91	1.32	5.41
NI04420	12.7	71.9	0.46	11.4	0.700	80.25	-2.26	24.04	-11.63	1.81	1.91
NI04421	13.1	71.6	0.47	11.6	0.707	80.33	-2.34	24.31	-12.39	1.45	2.68
NE04424	12.1	72.7	0.45	11.3	0.664	81.69	-2.08	21.27	-12.46	1.02	5.05
NI04428	12.9	72.3	0.45	11.8	0.754	80.71	-1.79	21.11	-14.38	1.40	6.52
SD05W012	12.5	71.4	0.52	11.5	0.464	81.22	-2.22	23.23	-13.44	1.42	4.79
SD05W138	12.1	71.9	0.52	12.0	0.709	80.98	-2.30	24.13	-12.77	1.18	4.85
T159	14.1	66.5	0.42	12.7	0.257	82.45	-1.89	19.37	-13.61	1.36	7.85

LINE	Wheat		Flour			Noodle Color					
	Protein	Milling Yield	Ash	Protein	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
	(%)	(%)	(%)	(%)							
TX99A0153-1	11.9	73.2	0.46	10.6	0.702	80.29	-2.50	23.59	-10.98	1.26	2.50
TX03M1096	13.1	71.1	0.42	11.4	0.800	80.90	-2.41	24.15	-13.51	1.91	1.59
TX01V5136RC	12.9	72.0	0.47	11.8	0.763	81.05	-2.27	22.88	-13.59	1.47	3.45
TX01A7340	13.0	71.5	0.44	11.7	0.443	80.34	-2.01	23.00	-14.83	1.90	2.09
TX02A0252	12.4	73.0	0.48	10.9	0.778	81.02	-2.00	21.99	-13.64	1.86	3.64
TX04M410068	13.0	74.4	0.47	11.8	0.457	79.28	-1.73	22.60	-12.78	1.87	2.00
TX03A0148	12.7	71.6	0.43	11.3	0.555	79.33	-1.86	24.59	-12.00	1.37	2.87
TX03A0563	13.2	73.3	0.42	11.8	0.671	79.97	-1.59	20.04	-13.02	0.96	4.84

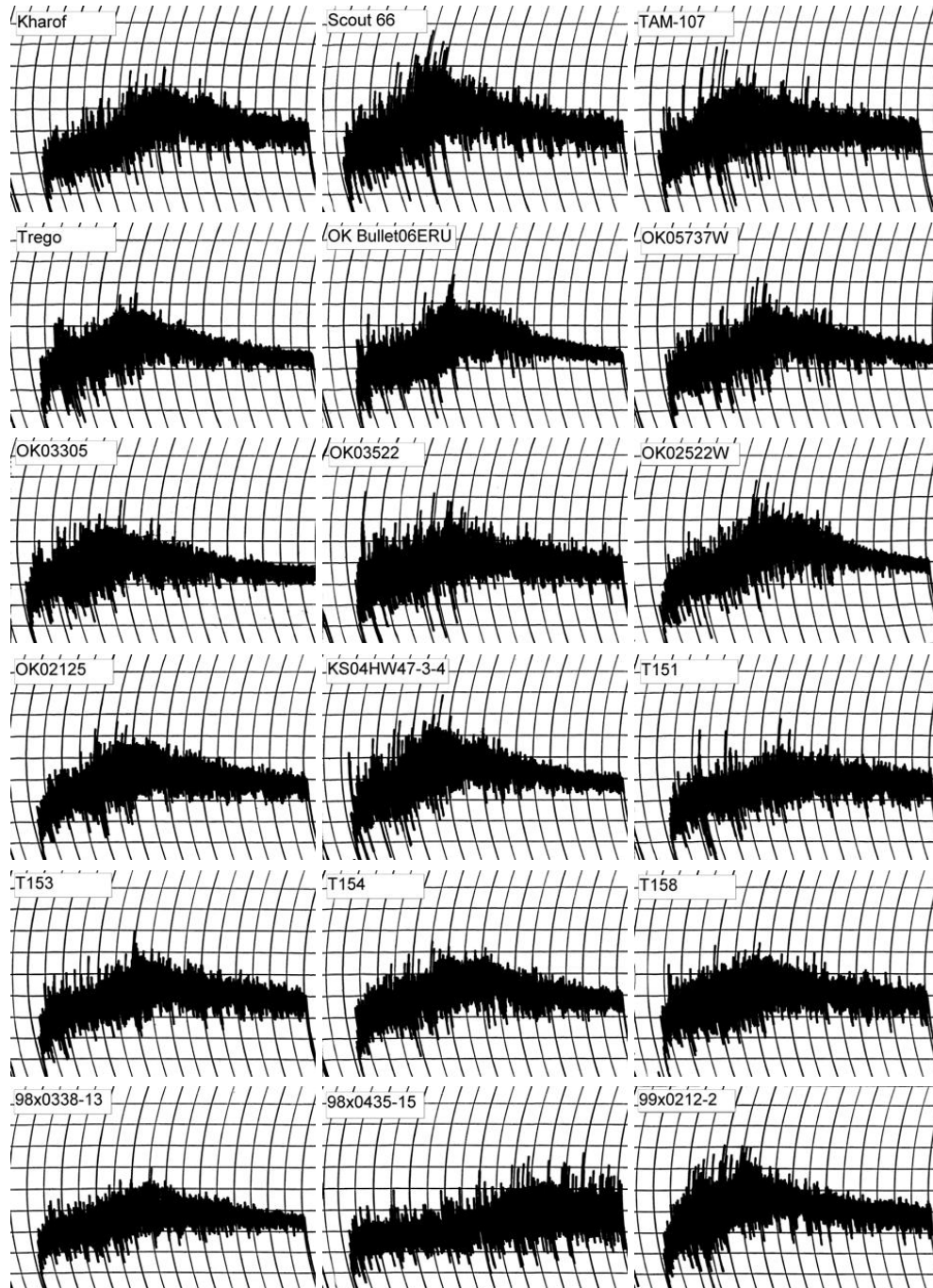
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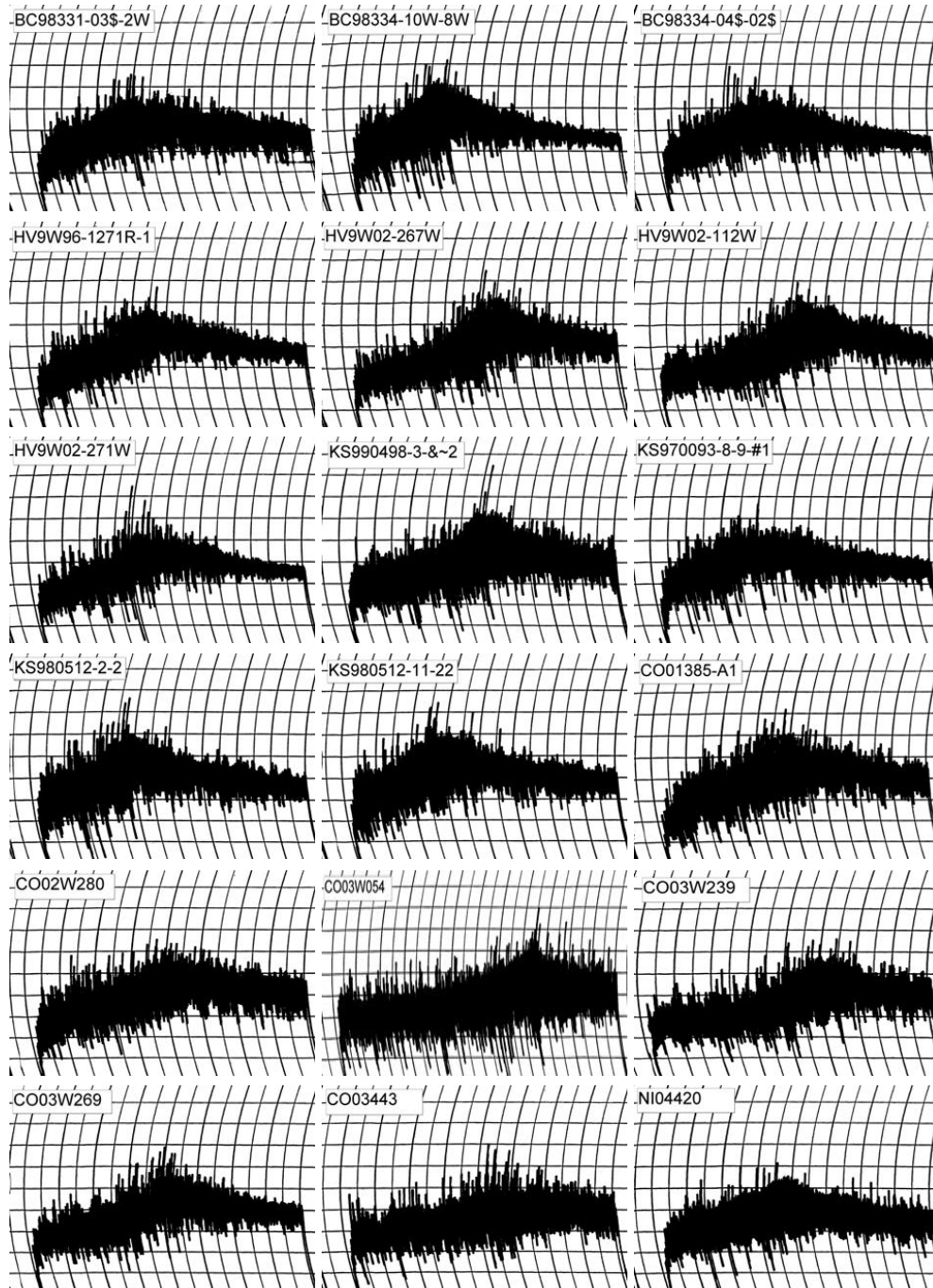
	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	12.7	64.2	3.63	3.63	4
Scout 66	12.2	63.3	2.88	2.88	4
TAM-107	11.2	60.7	2.88	2.62	4
Trego	10.9	61.0	2.88	2.49	1
OK Bullet06ERU	12.4	63.6	3.38	3.38	0
OK05737W	11.8	62.6	3.25	3.16	2
OK03305	10.6	59.5	2.63	2.18	1
OK03522	11.3	61.8	3.13	2.87	3
OK02522W	12.1	63.2	3.38	3.38	0
OK02125	12.3	63.5	3.00	3.00	2
KS04HW47-3-4	11.1	61.5	2.63	2.35	1
T151	11.0	61.2	3.63	3.19	4
T153	11.2	61.7	3.13	2.84	3
T154	11.4	61.9	3.50	3.23	2
T158	11.0	61.3	3.25	2.87	4
98x0338-13	12.5	62.2	3.50	3.50	0
98x0435-15	12.4	63.6	6.50	6.50	5
99x0212-2	11.8	62.6	2.50	2.44	2
BC98331-03\$-2W	11.3	61.8	3.50	3.22	3
BC98334-10W-8W	12.0	62.9	2.75	2.73	0
BC98334-04\$-02\$	10.7	60.8	3.13	2.66	0
HV9W96-1271R-1	11.3	61.7	3.50	3.20	2
HV9W02-267W	11.0	61.3	4.50	3.97	5
HV9W02-112W	10.5	60.5	4.38	3.60	4
HV9W02-271W	11.5	62.1	3.38	3.17	0
KS990498-3-&~2	11.2	61.5	4.38	3.94	5
KS970093-8-9-#1	11.3	61.8	2.88	2.63	2
KS980512-2-2	10.7	60.8	3.75	3.17	3
KS980512-11-22	11.4	62.0	3.00	2.80	2
CO01385-A1	10.7	60.8	3.75	3.18	4
CO02W280	10.7	60.8	4.13	3.50	4
CO03W054	10.8	60.9	8.50	7.28	6
CO03W239	11.2	61.6	5.38	4.86	5
CO03W269	11.7	61.5	4.00	3.86	2
CO03443	11.1	61.4	5.00	4.44	5
NI04420	11.4	61.9	3.88	3.60	3
NI04421	11.6	60.8	3.63	3.46	4
NE04424	11.3	61.7	4.13	3.77	4
NI04428	11.8	60.1	4.25	4.16	4
SD05W012	11.5	62.1	2.63	2.48	0
SD05W138	12.0	61.0	3.75	3.75	0
T159	12.7	62.7	3.88	3.88	4

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
TX99A0153-1	10.6	59.6	3.38	2.81	2
TX03M1096	11.4	61.9	2.50	2.32	2
TX01V5136RC	11.8	62.6	3.50	3.41	4
TX01A7340	11.7	62.5	3.75	3.63	4
TX02A0252	10.9	61.2	3.63	3.17	4
TX04M410068	11.8	62.6	2.88	2.82	4
TX03A0148	11.3	61.8	3.00	2.76	4
TX03A0563	11.8	62.7	3.13	3.07	3

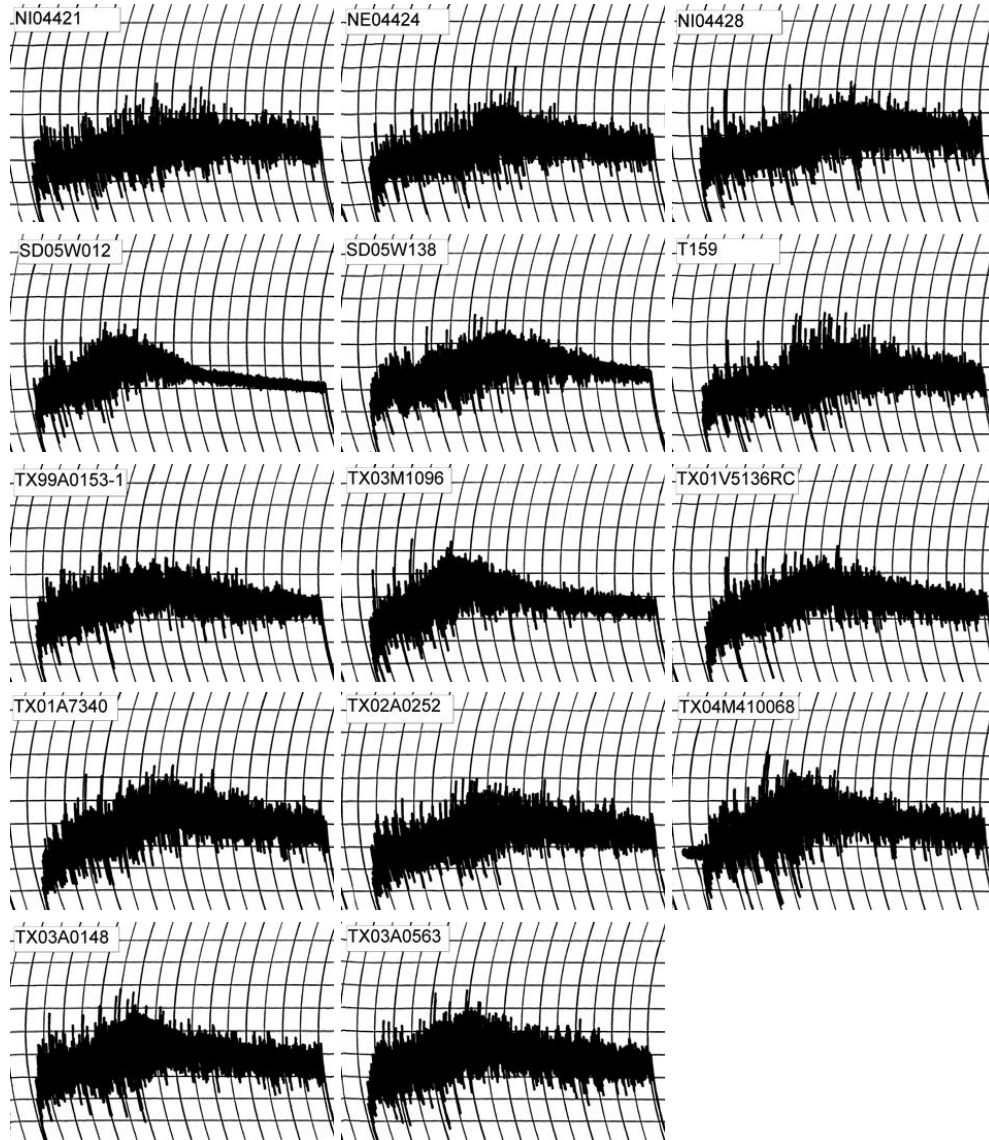
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Line	RVA							Pasting Temp (Deg. C)
	Stirring Number (RVU)	Peak Viscosity (RVU)	Trough Viscosity (RVU)	Breakdown (RVU)	Final Viscosity (RVU)	Set back (RVU)	Peak Time (min)	
Kharkof	131.25	208.33	126.92	81.42	230.67	103.75	6.20	
Scout 66	88.58	151.92	73.42	78.50	156.33	82.92	5.73	
TAM-107	108.92	223.42	126.00	97.42	232.00	106.00	6.13	
Trego	43.33	91.08	14.33	76.75	35.58	21.25	4.87	
OK Bullet06ERU	25.17	126.00	8.25	117.75	28.17	19.92	4.13	
OK05737W	92.83	138.92	53.83	85.08	120.92	67.08	5.47	
OK03305	54.33	112.33	25.67	86.67	60.92	35.25	5.00	
OK03522	13.42	29.83	2.50	27.33	4.92	2.42	3.67	
OK02522W	57.08	92.58	21.92	70.67	54.08	32.17	5.00	
OK02125	103.25	147.50	76.42	71.08	161.25	84.83	5.73	
KS04HW47-3-4	31.83	50.75	6.83	43.92	17.00	10.17	4.53	
T151	94.75	161.58	75.50	86.08	160.17	84.67	5.73	
T153	25.58	47.00	4.00	43.00	10.33	6.33	4.07	
T154	44.75	73.42	14.00	59.42	35.58	21.58	4.73	
T158	90.25	163.00	77.50	85.50	159.08	81.58	5.80	
98x0338-13	109.83	187.33	111.00	76.33	213.83	102.83	6.07	
98x0435-15	107.58	212.33	128.83	83.50	237.00	108.17	6.07	
99x0212-2	95.67	116.08	52.75	63.33	121.67	68.92	5.47	
BC98331-03\$-2W	40.08	52.92	8.17	44.75	21.33	13.17	4.53	
BC98334-10W-8W	15.00	38.42	2.75	35.67	6.58	3.83	3.87	
BC98334-04\$-02\$	68.17	124.92	41.33	83.58	96.08	54.75	5.27	
HV9W96-1271R-1	56.17	97.75	32.17	65.58	77.67	45.50	5.07	
HV9W02-267W	46.00	74.33	13.42	60.92	33.92	20.50	4.87	
HV9W02-112W	65.42	128.17	31.33	96.83	74.42	43.08	5.27	
HV9W02-271W	17.42	41.42	3.58	37.83	7.58	4.00	4.07	
KS990498-3-&~2	39.67	72.42	11.67	60.75	29.17	17.50	4.73	
KS970093-8-9-#1	115.25	179.00	97.83	81.17	184.33	86.50	6.07	
KS980512-2-2	48.75	96.75	22.50	74.25	55.33	32.83	4.93	
KS980512-11-22	100.25	178.33	96.25	82.08	188.83	92.58	5.93	
CO01385-A1	92.58	159.17	85.25	73.92	178.00	92.75	5.73	
CO02W280	13.25	35.67	2.33	33.33	5.33	3.00	3.73	
CO03W054	91.50	138.67	56.50	82.17	128.67	72.17	5.60	
CO03W239	8.58	45.50	1.75	43.75	3.92	2.17	3.60	
CO03W269	18.00	46.75	3.50	43.25	8.67	5.17	4.07	
CO03443	68.42	125.17	42.50	82.67	101.08	58.58	5.40	
NI04420	96.17	140.83	76.08	64.75	159.33	83.25	5.87	
NI04421	110.17	182.17	113.42	68.75	221.67	108.25	6.00	
NE04424	106.33	160.08	94.50	65.58	186.67	92.17	5.93	
NI04428	135.67	206.75	142.08	64.67	272.58	130.50	6.13	
SD05W012	34.50	50.00	6.67	43.33	16.33	9.67	4.53	
SD05W138	52.17	79.67	17.75	61.92	44.42	26.67	4.93	
T159	102.50	201.25	98.42	102.83	189.42	91.00	6.00	
TX99A0153-1	104.25	193.08	117.50	75.58	221.83	104.33	6.00	
TX03M1096	98.83	203.58	122.83	80.75	239.25	116.42	5.93	
TX01V5136RC	104.50	169.42	95.75	73.67	189.08	93.33	5.93	
TX01A7340	42.08	89.50	11.42	78.08	29.50	18.08	4.60	

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	RVA							
	Stirring Number	Peak Viscosity	Trough Viscosity	Breakdown	Final Viscosity	Set back	Peak Time	Pasting Temp
Line	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(min)	(Deg. C)
TX02A0252	99.58	166.17	86.17	80.00	174.92	88.75	5.80	
TX04M410068	86.17	128.08	60.58	67.50	134.50	73.92	5.40	
TX03A0148	88.33	137.42	58.33	79.08	129.25	70.92	5.60	
TX03A0563	111.25	185.42	119.08	66.33	225.83	106.75	6.00	

2007 SRPN Intraregional Production Zone

South Central Plains

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	12.7	61.6	4.00	4.00	171.1	7.8	5.5	975	6.8	69
Scout 66	12.2	62.0	3.25	3.25	171.4	7.7	5.0	965	6.5	72
TAM-107	11.2	61.1	4.00	3.64	170.2	7.8	5.0	965	6.6	80
Trego	10.9	58.2	3.50	3.02	167.3	7.4	4.0	920	6.3	78
OK Bullet06ERU	12.4	59.2	3.75	3.75	168.6	7.5	3.8	925	6.3	67
OK05737W	11.8	59.1	3.75	3.65	168.5	7.5	4.5	915	6.2	70
OK03305	10.6	58.0	3.50	2.90	167.4	7.4	3.8	915	6.3	80
OK03522	11.3	61.8	4.00	3.67	171.2	7.3	3.2	955	6.5	79
OK02522W	12.1	62.8	4.00	4.00	172.5	7.7	4.0	960	6.4	72
OK02125	12.3	60.1	3.38	3.38	169.5	7.4	3.0	915	6.2	66
KS04HW47-3-4	11.1	61.2	3.50	3.13	170.5	7.3	4.5	900	6.0	73
T151	11.0	61.2	3.88	3.41	170.7	7.2	3.5	915	6.1	77
T153	11.2	60.9	4.00	3.63	169.7	7.3	3.5	965	6.6	80
T154	11.4	61.8	3.25	3.00	171.3	7.6	3.8	975	6.6	80
T158	11.0	57.0	3.25	2.87	171.4	7.4	4.5	915	6.3	76
98x0338-13	12.5	57.9	4.13	4.13	167.1	7.5	3.0	895	6.2	63
98x0435-15	12.4	63.1	8.25	8.25	171.9	7.6	5.5	960	6.5	70
99x0212-2	11.8	62.0	3.00	2.93	171.5	7.3	4.0	890	6.0	67
BC98331-03\$-2W	11.3	61.2	4.25	3.91	170.6	6.8	4.5	865	5.7	68
BC98334-10W-8W	12.0	61.2	3.25	3.23	170.8	7.4	4.5	925	6.2	70
BC98334-04\$-02\$	10.7	60.2	3.25	2.76	170.0	6.8	3.8	840	5.6	69
HV9W96-1271R-1	11.3	57.9	4.00	3.65	167.3	7.5	4.8	975	6.7	81
HV9W02-267W	11.0	61.1	6.00	5.30	170.2	7.1	5.5	915	6.2	76
HV9W02-112W	10.5	59.6	5.50	4.52	168.9	7.3	5.0	900	6.2	79
HV9W02-271W	11.5	57.9	3.63	3.41	167.4	7.1	4.5	920	6.4	73
KS990498-3-&~2	11.2	61.4	7.00	6.29	170.2	7.6	5.0	965	6.5	81
KS970093-8-9-#1	11.3	57.2	3.50	3.20	166.5	7.4	3.0	870	5.9	68
KS980512-2-2	10.7	58.1	3.13	2.65	167.6	7.1	3.5	875	6.0	74
KS980512-11-22	11.4	60.2	3.38	3.15	169.6	7.1	4.0	880	5.9	68
CO01385-A1	10.7	61.2	5.00	4.24	170.5	7.3	3.8	845	5.6	70
CO02W280	10.7	61.1	4.63	3.93	170.9	7.5	3.5	915	6.2	79
CO03W054	10.8	61.9	12.75	10.91	169.4	7.3	3.5	835	5.7	68
CO03W239	11.2	58.3	6.75	6.10	168.6	7.1	4.5	900	6.1	73
CO03W269	11.7	59.3	5.00	4.83	168.2	7.2	3.0	870	5.9	65
CO03443	11.1	61.1	6.38	5.67	170.0	7.3	4.0	850	5.8	68
NI04420	11.4	59.2	4.50	4.18	170.4	7.0	4.0	850	5.7	65
NI04421	11.6	60.0	6.13	5.84	169.5	7.0	4.5	855	5.7	64
NE04424	11.3	60.0	4.13	3.77	169.2	7.2	3.8	870	5.9	69
NI04428	11.8	60.0	5.38	5.26	169.3	7.4	3.0	850	5.7	62
SD05W012	11.5	56.5	3.13	2.95	166.2	7.3	2.0	800	5.5	59
SD05W138	12.0	57.7	4.25	4.25	167.2	7.1	2.5	855	5.8	61
T159	12.7	58.3	4.25	4.25	167.6	7.6	3.2	905	6.1	62
TX99A0153-1	10.6	60.0	3.25	2.70	169.4	7.4	3.5	870	5.9	74
TX03M1096	11.4	58.3	2.63	2.44	167.8	7.1	4.0	870	5.9	68

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
TX01V5136RC	11.8	58.1	3.13	3.05	167.6	7.3	3.8	850	5.8	63
TX01A7340	11.7	61.2	4.25	4.11	170.7	7.6	3.0	975	6.6	77
TX02A0252	10.9	61.0	5.25	4.58	170.2	7.1	3.0	855	5.8	69
TX04M410068	11.8	61.3	3.75	3.67	170.6	7.2	2.0	845	5.7	62
TX03A0148	11.3	61.1	3.63	3.34	170.7	7.3	3.0	850	5.7	66
TX03A0563	11.8	61.2	4.00	3.92	171.3	7.3	3.5	900	6.0	68



Hard Winter Wheat Quality Report 2007 SRPN-SHP

1 - Test weight	10	11 - Flour protein	8
2 - SKCS kernel weight	8	12 - Bake absorption	15
3 - Kernel weight SD	8	13 - Mixograph absorption	5
4 - SKCS kernel diameter	8	14 - Bake mix time	10
5 - Kernel diameter SD	8	15 - Mixograph mix time	5
6 - SKCS hardness	10	16 - Mixograph tolerance	5
7 - Hardness SD	8	17 - Dough weight	
8 - Flour yield	30	18 - Proof height	2
9 - Flour ash	10	19 - Loaf volume	20
10 - Milling score		20 - Volume regression	5
		21 - Crumb grain	25

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
Kharkof	40.5	Very Poor	67.0	70.4	Very Good	100.0		8,9,10,
Scout66	55.7	Very Good	92.2	42.7	Poor	60.7		16,
TAM 107	52.2	Average	86.3	42.8	Poor	60.9	1AL	13,
Trego	50.5	Poor	83.5	54.6	Good	77.6		3,5,16,
OK Bullet06ERU	56.3	Very Good	93.1	52.1	Good	74.0		9,
OK05737W	51.0	Average	84.4	53.2	Good	75.6		1,
OK03305	60.5	Very Good	100.0	41.2	Poor	58.5		13,16,
OK03522	52.7	Average	87.1	46.1	Average	65.4		18,
OK02522W	59.2	Very Good	97.9	50.6	Good	71.9		16,
OK02125	56.2	Very Good	92.9	39.1	Very Poor	55.5		9,16,20,
KS04HW47-3-4	52.3	Average	86.5	47.2	Good	67.0		16,17,
T151	49.8	Poor	82.3	45.0	Average	64.0	1AL	
T153	50.1	Poor	82.8	43.7	Poor	62.1	1AL	11,13,
T154	49.4	Very Poor	81.6	44.8	Average	63.6		11,
T158	54.7	Good	90.4	62.1	Very Good	88.2		11,
Art	50.2	Poor	83.1	58.3	Very Good	82.9	1BL	12,13,16,
Hawken	53.1	Good	87.9	56.1	Good	79.7		
99x0212-2	52.3	Average	86.5	37.4	Very Poor	53.2		16,
BC98331-03\$-2W	55.0	Good	91.0	61.8	Very Good	87.7		19,
BC98334-10W-8W	52.9	Good	87.4	46.2	Average	65.6		
BC98334-04\$-02\$	55.2	Good	91.3	35.9	Very Poor	51.0		16,19,
HV9W96-1271R-1	54.3	Good	89.8	44.8	Average	63.7		4,16,
HV9W02-267W	55.7	Very Good	92.0	57.6	Very Good	81.8		
HV9W02-112W	53.5	Good	88.5	41.5	Very Poor	58.9		
HV9W02-271W	48.6	Very Poor	80.4	44.5	Average	63.2		16,
KS990498-3-&~2	45.5	Very Poor	75.2	66.6	Very Good	94.6		1,2,4,15,
KS970093-8-9-#1	55.1	Good	91.2	37.5	Very Poor	53.3		16,
KS980512-2-2	49.7	Poor	82.2	51.4	Good	73.0		3,16,18,
KS980512-11-22	52.0	Average	86.1	47.2	Good	67.0		16,
Bill Brown	51.0	Poor	84.4	42.3	Poor	60.1		2,11,18,19,

Quality scores and ratings are calculated directly from the relative trait weightings (printed at the top of the page) and are applicable only to the nursery selected.



Hard Winter Wheat Quality Report 2007 SRPN-SHP

1 - Test weight	10	11 - Flour protein	8
2 - SKCS kernel weight	8	12 - Bake absorption	15
3 - Kernel weight SD	8	13 - Mixograph absorption	5
4 - SKCS kernel diameter	8	14 - Bake mix time	10
5 - Kernel diameter SD	8	15 - Mixograph mix time	5
6 - SKCS hardness	10	16 - Mixograph tolerance	5
7 - Hardness SD	8	17 - Dough weight	
8 - Flour yield	30	18 - Proof height	2
9 - Flour ash	10	19 - Loaf volume	20
10 - Milling score		20 - Volume regression	5
		21 - Crumb grain	25

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
CO02W280	51.6	Average	85.3	45.8	Average	65.1		
CO03W054	50.6	Poor	83.6	45.4	Poor	64.5		14,15,
CO03W239	53.9	Good	89.2	37.4	Very Poor	53.1		11,13,14,15,
CO03W269	56.7	Very Good	93.7	63.0	Very Good	89.4		16,
CO03443	49.5	Poor	81.9	46.1	Average	65.4		
NI04420	52.5	Average	86.8	48.8	Good	69.3		3,
NI04421	46.9	Very Poor	77.5	45.4	Poor	64.5	1BL	
NE04424	53.0	Average	87.6	47.1	Average	66.9		
NI04428	50.4	Poor	83.3	42.1	Poor	59.8		
SD05W012	45.8	Very Poor	75.8	32.6	Very Poor	46.2		12,16,17,
SD05W138	51.2	Average	84.7	43.8	Poor	62.3		2,9,12,16,
T159	29.9	Very Poor	49.5	41.7	Poor	59.2		6,8,10,12,16,17,
TX99A0153-1	48.5	Very Poor	80.1	33.6	Very Poor	47.7	1AL	12,16,17,
TX03M1096	51.1	Poor	84.5	37.4	Very Poor	53.1		12,16,17,
TX01V5136RC	59.5	Very Good	98.3	40.0	Very Poor	56.7		10,
TX01A7340	53.9	Good	89.1	69.9	Very Good	99.2		
TX02A0252	49.3	Very Poor	81.6	51.9	Good	73.8		
TX04M410068	57.5	Very Good	95.0	57.8	Very Good	82.1		
TX03A0148	48.1	Very Poor	79.6	62.7	Very Good	89.1		3,
TX03A0563	56.1	Very Good	92.8	44.3	Average	62.9		16,

2007 SRPN Intraregional Production Zone

Southern High Plains

LINE	Wt/Bu (lb)	SKCS Average Kernel						Hardness			
		Moisture		Weight		Diameter		SKCS	Class	Distribution	
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)				
Kharkof	59.0	11.8	0.6	26.4	8.8	1.96	0.45	52	19	MIXED	013-025-029-033-03
Scout 66	58.6	11.7	0.7	27.6	7.8	2.05	0.47	66	17	HARD	004-007-018-071-01
TAM-107	57.1	11.8	0.7	28.0	8.2	2.05	0.48	69	17	HARD	002-007-017-074-01
Trego	58.9	12.1	0.7	29.0	10.2	2.09	0.56	65	18	HARD	005-007-024-064-01
OK Bullet06ERU	58.6	11.4	0.7	29.9	9.1	2.27	0.53	75	15	HARD	001-003-011-085-01
OK05737W	56.3	11.6	0.6	27.9	8.4	2.11	0.50	65	18	HARD	004-010-023-063-01
OK03305	59.6	10.8	0.7	29.0	8.0	2.12	0.45	68	16	HARD	001-007-021-071-01
OK03522	58.2	10.3	0.6	30.5	9.5	2.21	0.52	66	15	HARD	003-007-020-070-01
OK02522W	58.5	10.8	0.7	29.9	8.3	2.31	0.53	76	14	HARD	000-003-007-090-01
OK02125	58.4	11.3	0.6	27.9	7.8	2.12	0.45	81	14	HARD	000-001-006-093-01
KS04HW47-3-4	57.2	10.7	0.5	26.1	8.7	2.00	0.48	75	15	HARD	001-004-008-087-01
T151	58.1	11.3	0.9	26.8	9.2	1.93	0.50	70	17	HARD	002-009-017-072-01
T153	58.8	11.6	0.9	26.5	8.9	1.93	0.49	68	16	HARD	002-008-018-072-01
T154	58.9	11.5	0.9	26.5	8.8	1.97	0.51	67	17	HARD	003-009-017-071-01
T158	59.1	11.4	0.8	28.1	8.8	2.04	0.49	66	15	HARD	001-009-020-070-01
98x0338-13	58.6	11.7	0.7	24.8	8.0	1.98	0.47	67	17	HARD	003-009-016-072-01
98x0435-15	58.2	11.1	0.9	27.7	9.6	2.11	0.50	68	15	HARD	002-006-018-074-01
99x0212-2	58.7	11.2	0.8	28.7	9.2	2.12	0.49	71	16	HARD	002-003-018-077-01
BC98331-03\$-2W	58.3	11.3	0.7	27.4	7.8	2.06	0.46	62	15	HARD	002-013-031-054-01
BC98334-10W-8W	57.6	11.4	0.8	26.1	8.0	1.94	0.42	65	15	HARD	003-010-017-070-01
BC98334-04\$-02\$	58.3	11.2	0.8	26.2	7.3	1.94	0.39	67	18	HARD	004-009-021-066-01
HV9W96-1271R-1	57.9	11.6	0.7	25.2	8.2	1.83	0.46	66	15	HARD	002-008-020-070-01
HV9W02-267W	58.8	11.0	0.9	32.8	9.3	2.21	0.52	56	16	HARD	008-018-032-042-02
HV9W02-112W	58.3	10.8	1.0	26.5	8.7	1.93	0.46	63	16	HARD	004-009-025-062-01
HV9W02-271W	57.2	10.9	1.0	28.3	9.2	2.07	0.49	55	15	HARD	009-016-037-038-02
KS990498-3-&~2	53.2	11.3	0.9	23.1	7.3	1.81	0.41	68	15	HARD	001-006-019-074-01
KS970093-8-9-#1	59.6	11.4	0.6	26.5	7.6	1.98	0.42	62	16	HARD	003-012-026-059-01
KS980512-2-2	59.0	11.3	0.6	29.4	10.0	2.09	0.52	63	17	HARD	005-011-019-065-01
KS980512-11-22	58.3	11.1	0.6	26.4	8.0	2.05	0.46	64	17	HARD	005-008-023-064-01
CO01385-A1	59.1	11.4	0.6	24.5	8.1	1.94	0.48	75	17	HARD	001-004-011-084-01
CO02W280	58.7	11.5	0.6	27.5	8.0	2.05	0.47	73	17	HARD	002-005-012-081-01
CO03W054	58.0	11.5	0.6	29.8	9.7	2.19	0.51	71	16	HARD	002-006-014-078-01
CO03W239	58.1	11.2	0.6	28.8	8.8	2.12	0.47	66	15	HARD	002-009-020-069-01
CO03W269	58.3	11.6	0.7	28.0	8.2	2.11	0.47	70	16	HARD	001-005-019-075-01
CO03443	58.5	11.7	0.8	25.4	8.6	1.96	0.50	68	16	HARD	003-006-022-069-01
NI04420	60.0	11.4	0.6	30.3	10.1	2.18	0.51	64	17	HARD	005-010-025-060-01
NI04421	57.5	11.8	0.6	26.8	9.0	2.02	0.49	59	17	HARD	007-015-024-054-02
NE04424	59.4	11.3	0.8	29.4	9.5	2.21	0.53	66	16	HARD	002-008-025-065-01
NI04428	58.9	11.6	0.8	26.1	9.0	2.00	0.48	66	17	HARD	003-010-018-069-01
SD05W012	57.2	12.2	0.7	28.2	9.3	1.99	0.49	65	18	HARD	004-009-023-064-01
SD05W138	58.7	11.9	0.7	24.4	7.4	1.89	0.39	67	16	HARD	001-008-020-071-01
T159	57.9	11.6	0.6	25.3	8.0	1.89	0.43	21	21	MIXED	079-011-003-007-03
TX99A0153-1	58.7	11.9	0.8	26.6	9.6	1.93	0.51	60	17	HARD	006-013-029-052-02
TX03M1096	57.3	11.3	0.7	25.0	7.5	1.91	0.41	72	16	HARD	001-005-013-081-01
TX01V5136RC	61.2	11.5	0.7	27.7	7.9	2.14	0.49	80	15	HARD	000-001-006-093-01

SKCS Average Kernel								Hardness			
LINE	Wt/Bu (lb)	Moisture		Weight		Diameter		SKCS		Class	Distribution
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)	(sd)			
TX01A7340	58.5	11.6	0.6	26.5	7.9	2.05	0.45	75	15	HARD	000-003-013-084-01
TX02A0252	58.9	11.8	0.6	27.4	9.6	2.06	0.49	66	19	HARD	005-008-021-066-01
TX04M410068	59.0	11.7	0.6	27.2	8.7	2.08	0.46	81	16	HARD	000-003-006-091-01
TX03A0148	57.3	11.9	0.7	30.2	10.0	2.19	0.53	65	18	HARD	003-012-022-063-01
TX03A0563	59.8	11.4	0.7	25.0	7.8	2.00	0.48	63	16	HARD	003-012-025-060-01

2007 SRPN Intraregional Production Zone

Southern High Plains

LINE	Wheat		Flour			Noodle Color					
	Protein	Milling Yield	Ash	Protein	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
	(%)	(%)	(%)	(%)							
Kharkof	16.0	67.8	0.54	14.7	0.664	79.40	-1.70	22.34	-16.07	1.74	2.98
Scout 66	14.9	72.8	0.46	14.1	0.694	78.94	-1.67	23.48	-13.22	1.37	2.27
TAM-107	14.2	71.0	0.44	13.1	0.691	80.24	-1.71	23.51	-14.18	1.08	4.26
Trego	14.7	71.9	0.45	13.2	0.810	81.46	-1.87	21.49	-14.65	1.16	4.91
OK Bullet06ERU	15.7	72.8	0.52	14.5	0.571	79.99	-1.84	24.21	-14.43	1.64	1.15
OK05737W	15.6	72.7	0.49	14.6	0.669	81.01	-1.69	23.01	-14.32	1.34	3.49
OK03305	13.5	73.6	0.45	12.8	0.625	79.01	-1.78	24.70	-13.94	1.67	1.69
OK03522	15.1	70.4	0.42	13.3	0.199	80.80	-1.49	21.23	-13.35	1.24	4.87
OK02522W	15.0	72.9	0.48	14.0	0.612	79.64	-2.02	24.45	-12.88	1.58	1.62
OK02125	14.2	70.8	0.53	13.7	0.692	80.24	-0.29	24.88	-13.49	-0.57	3.01
KS04HW47-3-4	14.4	71.7	0.49	13.2	0.637	80.81	-2.11	23.66	-13.88	1.68	3.82
T151	13.5	70.9	0.45	12.9	0.672	80.41	-2.11	25.51	-13.38	1.22	4.47
T153	13.5	70.4	0.46	12.3	0.650	80.52	-2.17	24.03	-14.64	2.50	1.04
T154	13.5	70.2	0.45	12.6	0.623	80.37	-1.87	22.89	-14.19	1.91	2.54
T158	13.6	71.6	0.43	12.6	0.642	80.64	-2.18	23.92	-13.81	2.08	1.73
98x0338-13	14.8	70.6	0.48	13.6	0.798	80.01	-2.21	25.50	-14.56	2.12	0.77
98x0435-15	15.2	71.7	0.44	14.1	0.733	79.06	-1.42	21.94	-14.47	1.80	2.11
99x0212-2	14.6	70.8	0.48	13.5	0.670	81.20	-1.94	22.76	-15.09	2.76	1.20
BC98331-03\$-2W	14.0	71.7	0.43	13.1	0.706	81.40	-1.99	23.15	-15.12	2.00	1.46
BC98334-10W-8W	14.9	71.0	0.44	13.7	0.870	80.70	-1.96	24.02	-13.97	2.20	-0.09
BC98334-04\$-02\$	14.1	71.7	0.41	13.1	0.742	81.58	-1.57	22.68	-14.27	1.47	1.06
HV9W96-1271R-1	14.6	73.8	0.50	13.4	0.784	80.08	-2.53	25.85	-14.86	2.24	-0.28
HV9W02-267W	13.7	73.1	0.44	13.2	0.899	81.93	-2.37	22.85	-16.15	2.42	1.99
HV9W02-112W	13.8	72.8	0.45	13.0	0.924	81.72	-2.02	21.33	-16.21	1.66	2.73
HV9W02-271W	13.9	70.8	0.46	13.4	0.720	81.26	-2.27	25.60	-12.75	1.75	0.20
KS990498-3-&-2	14.8	69.5	0.50	14.0	0.713	79.95	-1.29	21.89	-15.03	1.99	3.00
KS970093-8-9-#1	14.2	71.6	0.46	13.3	0.693	80.37	-1.90	23.81	-12.73	2.21	1.82
KS980512-2-2	14.4	70.7	0.46	13.4	0.824	81.47	-1.79	22.91	-15.83	2.57	1.81
KS980512-11-22	14.0	70.6	0.42	13.4	0.659	80.21	-2.08	23.45	-13.40	2.65	0.54
CO01385-A1	13.8	70.3	0.48	12.6	0.702	81.61	-2.18	22.82	-16.22	1.93	2.95
CO02W280	14.5	69.8	0.48	13.2	0.817	81.28	-2.03	23.38	-13.74	1.80	1.50
CO03W054	14.4	70.4	0.49	13.2	0.793	81.26	-2.46	24.83	-14.69	1.63	1.15
CO03W239	13.8	70.8	0.42	12.4	0.791	82.65	-2.20	21.37	-15.96	1.88	3.13
CO03W269	14.3	72.2	0.44	13.5	0.732	80.51	-2.16	22.75	-14.28	2.03	1.19
CO03443	14.7	70.2	0.46	13.6	0.423	79.39	-2.14	26.92	-11.82	1.69	0.64
NI04420	14.5	71.5	0.46	13.4	0.652	79.91	-2.10	24.93	-12.07	1.48	0.39
NI04421	14.6	70.3	0.48	14.2	0.579	62.10	-0.05	11.71	-16.02	1.39	0.76
NE04424	14.5	71.3	0.46	13.6	0.633	74.39	-1.42	17.88	-14.09	1.71	5.01
NI04428	14.3	70.5	0.44	13.7	0.688	75.74	-1.50	18.14	-16.14	1.50	3.70
SD05W012	14.3	70.0	0.50	13.5	0.446	79.50	-2.36	24.31	-13.63	1.79	1.80
SD05W138	14.9	70.5	0.52	14.1	0.798	79.64	-2.06	25.49	-13.36	1.30	1.97
T159	15.3	62.3	0.45	14.3	0.244	80.73	-2.15	24.00	-16.09	2.58	1.70

LINE	Wheat		Flour			Noodle Color					
	Protein	Milling Yield	Ash	Protein	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
	(%)	(%)	(%)	(%)							
TX99A0153-1	14.5	71.1	0.46	13.6	0.604	81.00	-1.84	21.48	-15.62	2.31	3.36
TX03M1096	15.1	69.7	0.45	13.8	0.719	80.36	-2.20	25.04	-13.59	2.65	-0.93
TX01V5136RC	14.5	72.2	0.51	13.2	0.729	79.73	-2.31	24.82	-14.24	2.60	0.85
TX01A7340	15.0	70.7	0.49	14.2	0.483	79.32	-1.87	24.30	-15.57	2.65	0.09
TX02A0252	14.4	71.6	0.49	13.3	0.741	80.11	-1.80	23.25	-16.02	2.03	2.52
TX04M410068	14.5	72.8	0.50	13.4	0.417	80.05	-1.62	23.07	-15.84	2.32	0.87
TX03A0148	14.2	70.2	0.44	13.2	0.549	78.66	-1.84	26.81	-12.63	2.00	0.29
TX03A0563	14.6	72.2	0.39	13.6	0.700	80.18	-1.90	23.60	-15.19	1.98	1.18

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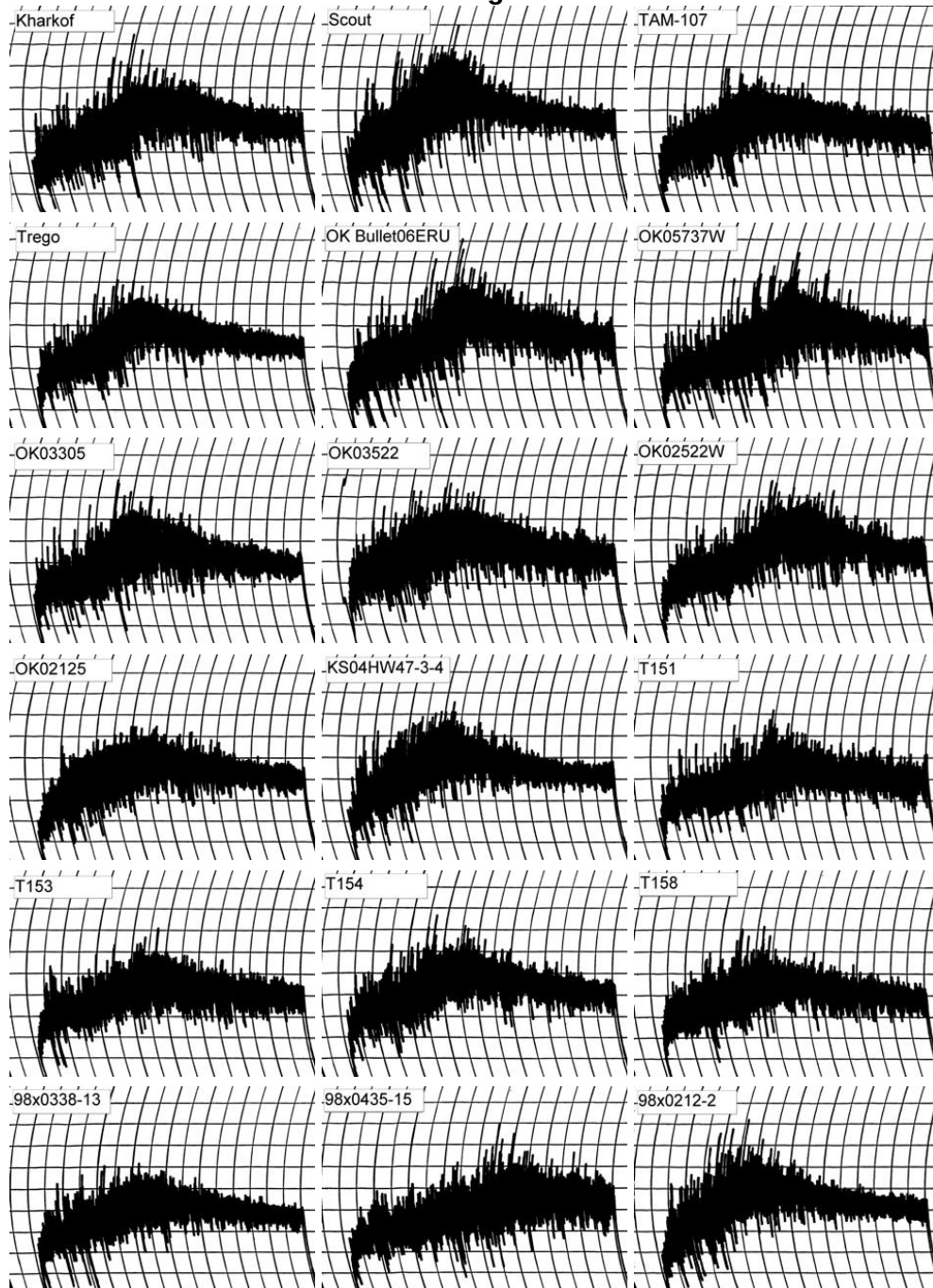
Southern High Plains

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	14.7	66.0	3.88	3.88	3
Scout 66	14.1	66.5	3.00	3.00	2
TAM-107	13.1	63.7	3.13	3.13	3
Trego	13.2	64.9	3.38	3.38	1
OK Bullet06ERU	14.5	66.0	3.50	3.50	4
OK05737W	14.6	67.2	4.13	4.13	3
OK03305	12.8	63.3	3.13	3.13	2
OK03522	13.3	65.1	3.50	3.50	3
OK02522W	14.0	66.3	4.00	4.00	2
OK02125	13.7	64.7	3.50	3.50	2
KS04HW47-3-4	13.2	65.0	3.13	3.13	1
T151	12.9	64.4	3.50	3.50	3
T153	12.3	63.4	3.50	3.50	4
T154	12.6	63.9	3.63	3.63	3
T158	12.6	63.9	3.25	3.25	3
98x0338-13	13.6	63.6	3.63	3.63	2
98x0435-15	14.1	64.5	5.00	5.00	5
99x0212-2	13.5	66.4	2.63	2.63	2
BC98331-03\$-2W	13.1	64.8	3.00	3.00	4
BC98334-10W-8W	13.7	65.9	3.00	3.00	4
BC98334-04\$-02\$	13.1	64.7	2.50	2.50	2
HV9W96-1271R-1	13.4	65.3	3.50	3.50	1
HV9W02-267W	13.2	64.9	4.63	4.63	5
HV9W02-112W	13.0	64.6	5.00	5.00	6
HV9W02-271W	13.4	65.3	3.63	3.63	1
KS990498-3-&~2	14.0	66.2	5.63	5.63	6
KS970093-8-9-#1	13.3	65.0	3.00	3.00	1
KS980512-2-2	13.4	65.4	2.75	2.75	2
KS980512-11-22	13.4	65.3	3.13	3.13	2
CO01385-A1	12.6	63.9	4.00	4.00	5
CO02W280	13.2	64.9	5.00	5.00	5
CO03W054	13.2	65.0	8.00	8.00	6
CO03W239	12.4	63.6	5.38	5.38	5
CO03W269	13.5	65.4	4.00	4.00	2
CO03443	13.6	65.6	4.88	4.88	5
NI04420	13.4	65.3	4.00	4.00	4
NI04421	14.2	64.6	5.00	5.00	5
NE04424	13.6	65.6	3.75	3.75	4
NI04428	13.7	64.7	4.50	4.50	4
SD05W012	13.5	65.4	2.88	2.88	0
SD05W138	14.1	64.0	3.75	3.75	1
T159	14.3	65.3	3.75	3.75	2

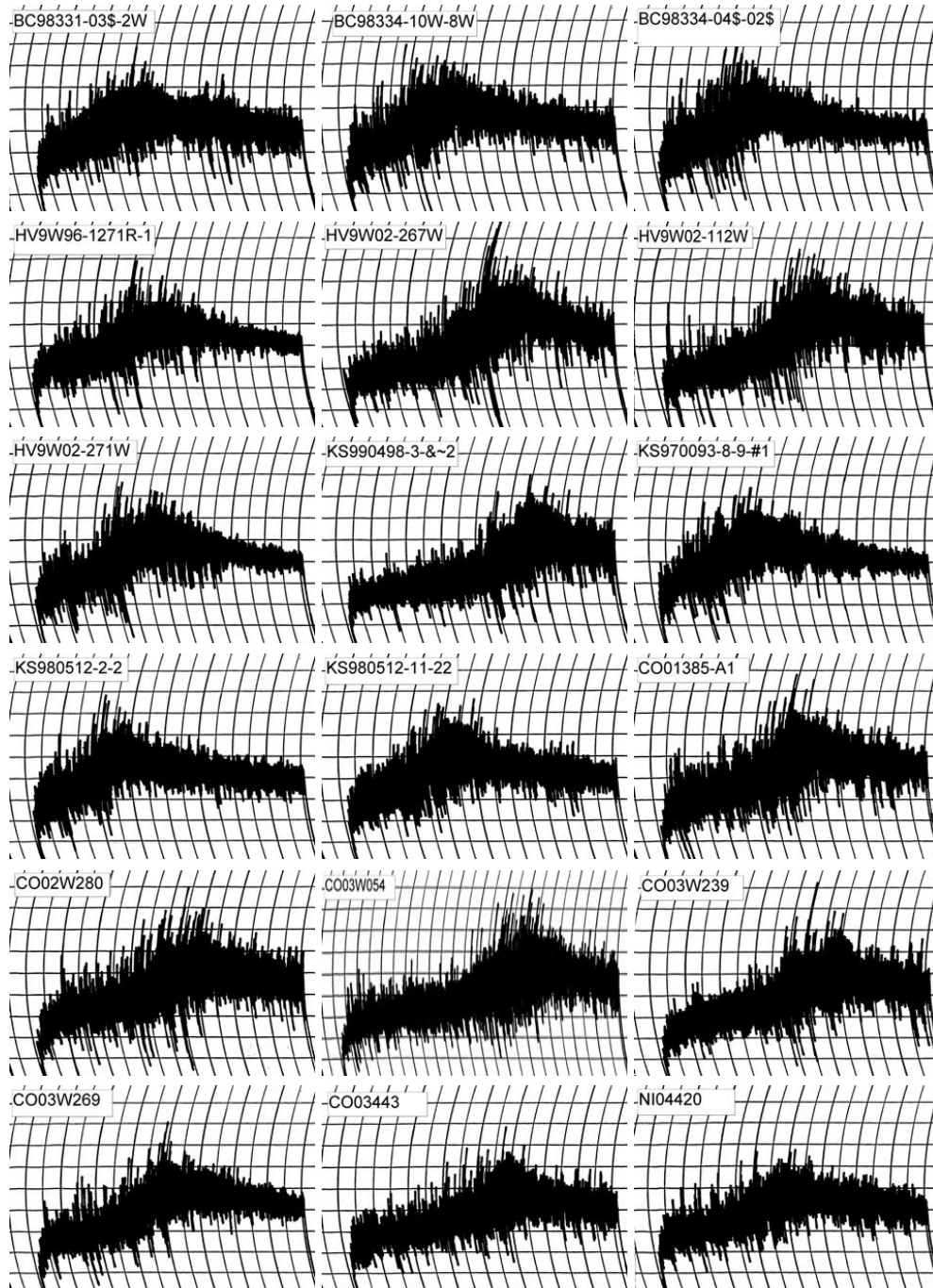
Mixograph					
	Flour Protein	Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
TX99A0153-1	13.6	65.6	2.88	2.88	1
TX03M1096	13.8	65.9	3.00	3.00	1
TX01V5136RC	13.2	64.9	2.88	2.88	3
TX01A7340	14.2	66.6	3.50	3.50	4
TX02A0252	13.3	65.2	3.63	3.63	4
TX04M410068	13.4	65.3	3.38	3.38	3
TX03A0148	13.2	65.0	3.38	3.38	3
TX03A0563	13.6	65.7	3.00	3.00	2

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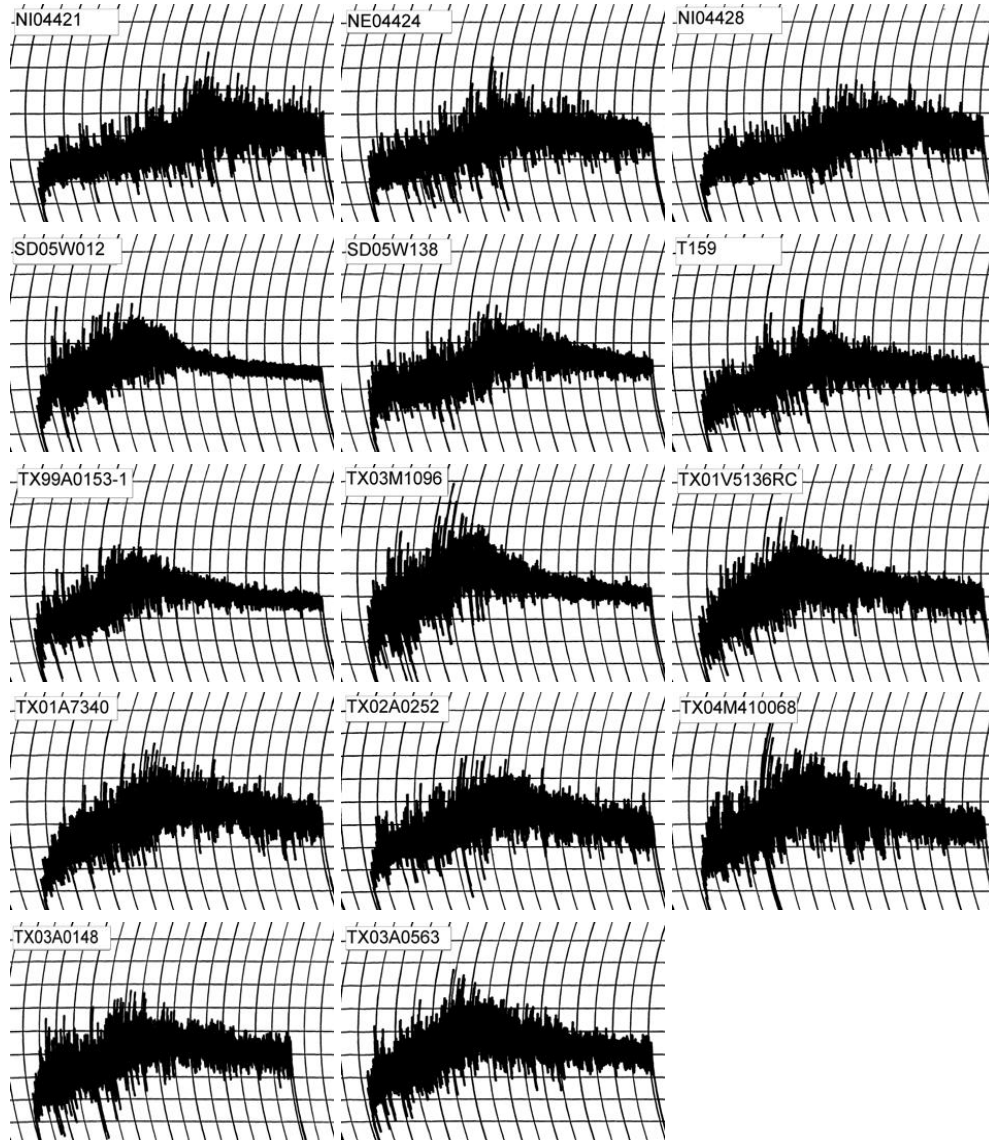


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Line	RVA							Pasting Temp (Deg. C)
	Stirring Number (RVU)	Peak Viscosity (RVU)	Trough Viscosity (RVU)	Breakdown (RVU)	Final Viscosity (RVU)	Set back (RVU)	Peak Time (min)	
Kharkof	139.00	218.50	154.25	64.25	265.75	111.50	6.40	
Scout 66	129.25	223.17	161.00	62.17	280.83	119.83	6.33	
TAM-107	143.83	258.58	184.50	74.08	308.08	123.58	6.47	
Trego	126.00	254.33	156.92	97.42	261.25	104.33	6.33	
OK Bullet06ERU	118.75	207.33	134.00	73.33	243.25	109.25	6.27	
OK05737W	124.92	247.17	165.92	81.25	289.75	123.83	6.33	
OK03305	109.92	241.92	145.75	96.17	248.83	103.08	6.27	
OK03522	120.42	208.75	147.25	61.50	269.92	122.67	6.20	
OK02522W	128.75	245.17	168.25	76.92	285.00	116.75	6.47	
OK02125	132.08	222.50	160.58	61.92	283.50	122.92	6.40	
KS04HW47-3-4	126.50	209.58	144.50	65.08	263.42	118.92	6.20	
T151	138.58	250.83	178.00	72.83	305.58	127.58	6.47	
T153	129.17	245.75	174.92	70.83	298.92	124.00	6.47	
T154	126.33	234.25	166.92	67.33	292.75	125.83	6.40	
T158	123.08	244.42	164.42	80.00	288.67	124.25	6.33	
98x0338-13	120.58	221.08	154.92	66.17	274.92	120.00	6.33	
98x0435-15	131.17	216.42	151.67	64.75	273.67	122.00	6.27	
99x0212-2	135.75	195.67	136.67	59.00	257.67	121.00	6.20	
BC98331-03\$-2W	128.33	212.00	150.83	61.17	277.00	126.17	6.27	
BC98334-10W-8W	120.67	219.83	149.67	70.17	273.42	123.75	6.27	
BC98334-04\$-02\$	126.42	233.83	158.25	75.58	284.33	126.08	6.27	
HV9W96-1271R-1	118.42	210.08	146.83	63.25	271.08	124.25	6.27	
HV9W02-267W	138.67	229.50	153.42	76.08	272.42	119.00	6.33	
HV9W02-112W	127.50	268.58	168.67	99.92	280.42	111.75	6.33	
HV9W02-271W	109.08	227.67	155.50	72.17	284.75	129.25	6.27	
KS990498-3-&~2	116.67	218.33	147.50	70.83	268.92	121.42	6.27	
KS970093-8-9-#1	159.17	244.75	183.75	61.00	298.83	115.08	6.60	
KS980512-2-2	128.08	220.83	148.75	72.08	271.83	123.08	6.13	
KS980512-11-22	123.42	225.83	157.58	68.25	282.67	125.08	6.33	
CO01385-A1	113.50	200.92	144.42	56.50	280.83	136.42	6.07	
CO02W280	125.83	225.83	141.58	84.25	260.00	118.42	6.20	
CO03W054	123.42	223.58	152.08	71.50	270.58	118.50	6.33	
CO03W239	114.67	244.33	148.92	95.42	261.33	112.42	6.27	
CO03W269	115.08	231.67	153.75	77.92	266.83	113.08	6.40	
CO03443	124.00	227.25	158.17	69.08	283.33	125.17	6.40	
NI04420	127.67	196.83	143.83	53.00	262.67	118.83	6.33	
NI04421	131.75	196.67	142.33	54.33	264.58	122.25	6.33	
NE04424	132.25	197.50	144.33	53.17	264.08	119.75	6.33	
NI04428	138.33	216.92	173.08	43.83	309.42	136.33	6.40	
SD05W012	126.42	190.17	131.83	58.33	248.25	116.42	6.20	
SD05W138	125.67	225.33	163.42	61.92	288.42	125.00	6.40	
T159	141.50	271.00	182.42	88.58	296.33	113.92	6.40	
TX99A0153-1	134.83	232.00	174.08	57.92	304.33	130.25	6.47	
TX03M1096	124.33	218.92	157.25	61.67	290.42	133.17	6.20	
TX01V5136RC	122.92	215.17	153.58	61.58	276.25	122.67	6.33	
TX01A7340	112.83	251.42	160.83	90.58	266.08	105.25	6.27	

RVA								
	Stirring Number	Peak Viscosity	Trough Viscosity	Breakdown	Final Viscosity	Set back	Peak Time	Pasting Temp
Line	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(min)	(Deg. C)
TX02A0252	126.42	221.67	160.00	61.67	286.17	126.17	6.33	
TX04M410068	128.58	202.58	141.00	61.58	268.50	127.50	6.13	
TX03A0148	126.50	243.50	176.33	67.17	300.92	124.58	6.53	
TX03A0563	132.67	217.00	160.67	56.33	289.92	129.25	6.27	

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Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	14.7	62.8	4.50	4.50	172.1	8.1	5.0	1000	6.8	60
Scout 66	14.1	61.1	3.50	3.50	169.6	8.0	4.8	1000	6.7	63
TAM-107	13.1	60.1	3.63	3.63	169.7	7.9	3.8	1015	7.0	71
Trego	13.2	60.0	3.50	3.50	169.2	7.6	4.0	975	6.7	66
OK Bullet06ERU	14.5	63.1	4.50	4.50	172.2	8.1	4.8	1015	6.8	62
OK05737W	14.6	64.1	4.75	4.75	173.0	8.1	4.8	1025	6.9	63
OK03305	12.8	61.9	3.75	3.75	170.9	7.7	4.5	970	6.6	68
OK03522	13.3	62.2	4.13	4.13	172.8	7.3	3.8	990	6.7	67
OK02522W	14.0	64.4	4.75	4.75	173.6	8.1	4.8	1000	6.7	64
OK02125	13.7	61.4	3.75	3.75	170.2	7.7	3.2	915	6.3	58
KS04HW47-3-4	13.2	60.8	3.50	3.50	165.7	7.6	3.0	925	6.3	61
T151	12.9	61.2	4.13	4.13	171.0	7.6	2.5	990	6.8	70
T153	12.3	59.8	4.00	4.00	169.2	8.0	3.5	975	6.7	73
T154	12.6	60.9	3.50	3.50	170.3	8.0	3.8	1015	7.0	75
T158	12.6	61.1	4.75	4.75	170.6	8.0	4.0	1000	6.8	73
98x0338-13	13.6	59.0	3.75	3.75	173.6	7.8	5.0	935	6.4	60
98x0435-15	14.1	63.0	7.00	7.00	172.1	8.1	4.0	975	6.5	61
99x0212-2	13.5	62.2	3.13	3.13	171.9	7.9	3.8	935	6.2	61
BC98331-03\$-2W	13.1	62.0	4.38	4.38	174.8	7.7	5.0	900	6.1	59
BC98334-10W-8W	13.7	63.9	4.00	4.00	173.2	7.6	4.8	960	6.4	61
BC98334-04\$-02\$	13.1	62.1	3.50	3.50	171.5	7.7	3.5	910	6.1	61
HV9W96-1271R-1	13.4	59.7	4.00	4.00	169.4	7.8	5.3	1025	7.0	70
HV9W02-267W	13.2	64.0	6.50	6.50	173.2	7.8	4.0	945	6.3	63
HV9W02-112W	13.0	63.9	7.00	7.00	172.9	7.7	5.5	960	6.4	66
HV9W02-271W	13.4	64.0	4.00	4.00	169.8	7.6	3.8	950	6.3	62
KS990498-3-&~2	14.0	62.8	6.13	6.13	171.4	8.1	4.0	1110	7.5	74
KS970093-8-9-#1	13.3	60.9	3.25	3.25	170.3	8.1	4.2	945	6.5	63
KS980512-2-2	13.4	59.7	3.25	3.25	170.0	7.5	4.0	950	6.5	62
KS980512-11-22	13.4	63.0	4.38	4.38	171.8	8.1	3.8	1000	6.7	67
CO01385-A1	12.6	62.0	5.63	5.63	171.0	7.5	4.5	905	6.1	63
CO02W280	13.2	63.2	6.25	6.25	172.1	8.0	3.5	1020	6.9	71
CO03W054	13.2	65.8	10.88	10.88	174.4	8.0	4.5	1063	7.1	75
CO03W239	12.4	64.0	7.50	7.50	172.7	7.6	4.5	965	6.5	71
CO03W269	13.5	62.1	5.00	5.00	171.5	7.9	4.0	1000	6.8	67
CO03443	13.6	63.4	5.75	5.75	172.0	8.0	4.8	980	6.6	64
NI04420	13.4	61.2	4.63	4.63	170.5	8.0	4.8	1000	6.9	67
NI04421	14.2	60.9	5.50	5.50	170.3	7.7	4.2	1000	6.9	63
NE04424	13.6	61.1	4.75	4.75	169.5	7.7	3.2	950	6.5	61
NI04428	13.7	60.1	5.38	5.38	169.5	8.0	4.8	940	6.4	60
SD05W012	13.5	57.9	3.00	3.00	168.1	7.8	3.5	935	6.4	61
SD05W138	14.1	58.9	4.75	4.75	168.2	7.9	4.5	975	6.7	61
T159	14.3	58.1	3.75	3.75	167.8	7.7	3.2	980	6.8	60
TX99A0153-1	13.6	57.8	3.00	3.00	167.8	7.6	4.5	945	6.5	61
TX03M1096	13.8	59.3	3.25	3.25	168.1	7.8	4.2	970	6.6	62

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
TX01V5136RC	13.2	60.0	3.50	3.50	169.5	7.8	3.2	975	6.6	66
TX01A7340	14.2	63.6	4.50	4.50	172.9	8.1	4.0	1055	7.2	68
TX02A0252	13.3	62.0	4.50	4.50	170.0	7.8	4.2	1040	7.1	72
TX04M410068	13.4	63.2	4.00	4.00	172.0	7.6	4.0	920	6.0	59
TX03A0148	13.2	62.1	3.75	3.75	171.5	7.9	5.0	950	6.4	64
TX03A0563	13.6	62.2	3.50	3.50	171.5	7.8	5.5	1025	6.9	68