

2010 Hard Winter Wheat Regional Performance Nursery Quality Report



Hard Winter Wheat Quality Laboratory

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TABLE OF CONTENTS

About 2010 Crop	3
About the HWWQL Quality Data	4
NRPN North Central Plains (NCP).....	10
NRPN Northern High Plains (NHP)	24
NRPN Northern Plains (NP).....	37
SRPN North Central Plains (NCP)	53
SRPN Northern High Plains (NHP).....	74
SRPN South Central Plains (SCP).....	94
SRPN Southern High Plains (SHP).....	114

USDA/ARS

Hard Winter Wheat Quality Laboratory

Locations from the **NRPN**, and **SRPN** were subdivided into **intra regional production zones**. The intra regional 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)

Dakota Lakes/(Pierre), SD
Brookings, SD
St Paul, MN

Northern Plains (NP)

Hettinger, ND
Moccasin, MT
Williston, ND

Northern High Plains (NHP)

Alliance, NE
Archer, WY
Sidney, NE
Goodland, KS

Southern Regional Performance Nursery (SRPN)

North Central Plains (NCP)

Clay Center, NE
Salina, KS
Brookings, SD
Dakota Lakes/(Pierre), SD

Northern High Plains (NHP)

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

South Central Plains (SCP)

Bushland-irr, TX
Goodwell-irr, OK
Hays, KS
Haven/Windfield, KS
Lahoma, OK
Wichita, KS
Granite, OK
Chillicothe, TX
Dallas/Prosper, TX
Stillwater, OK

Southern High Plains (SHP)

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

HWWQL Laboratory Analyses

About the HWWQL Quality Data ...

Milling, flour chemical, physical dough, breadmaking, noodlemaking properties, and flour protein analysis of 2008 Hard Winter Wheat regional performance nurseries have been evaluated and analyzed in the USDA 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: Wheat physical data, Milling, flour chemical, and noodle color data, Mixograph data, Flour pasting properties, and Breadmaking 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

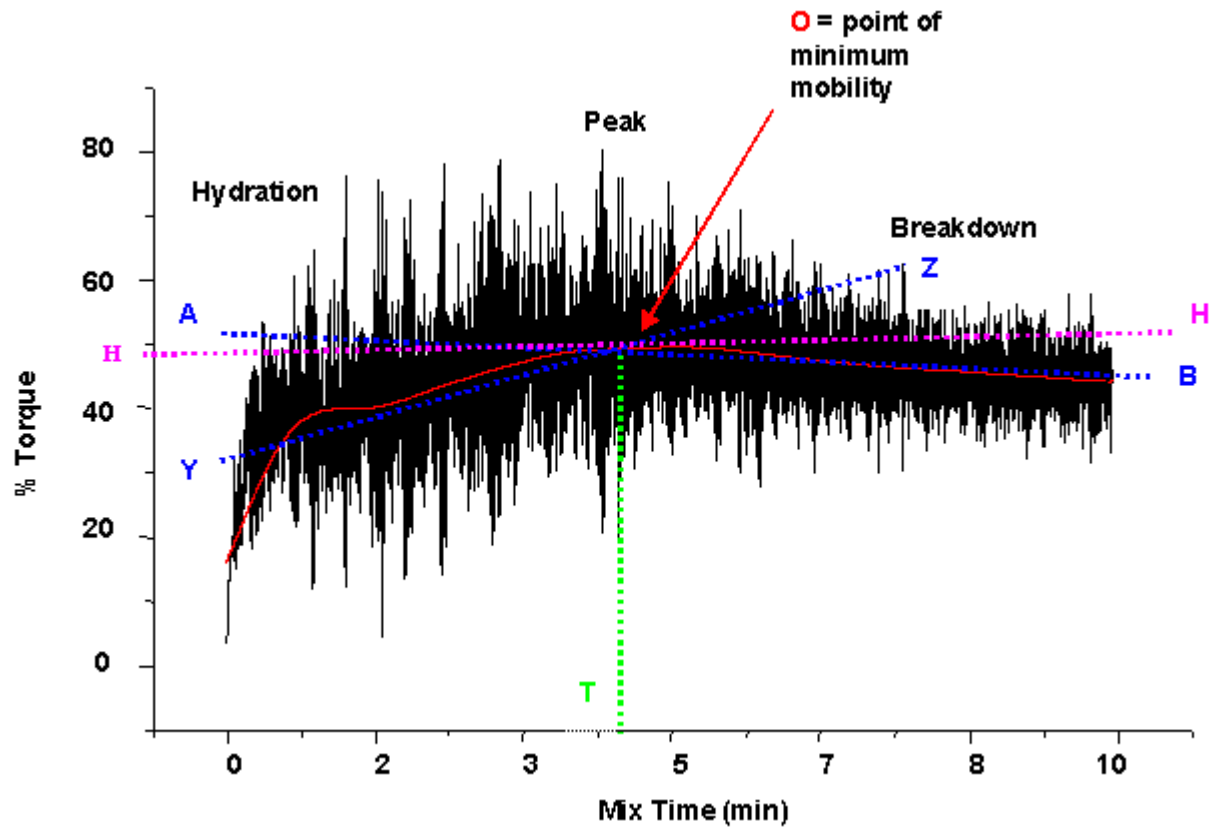
- Ash (FA) = flour ash content (%) on 14% mb. (AACC Method 08-01)
- Protein (FP) = flour protein content (%) on 14% mb. (AACC Method 46-30 or 39-11)
- Color (dry flour) = Minolta method
- PPO = polyphenol oxidase activity defined as a change of 0.001 absorbance unit (AU)/min/mL

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).

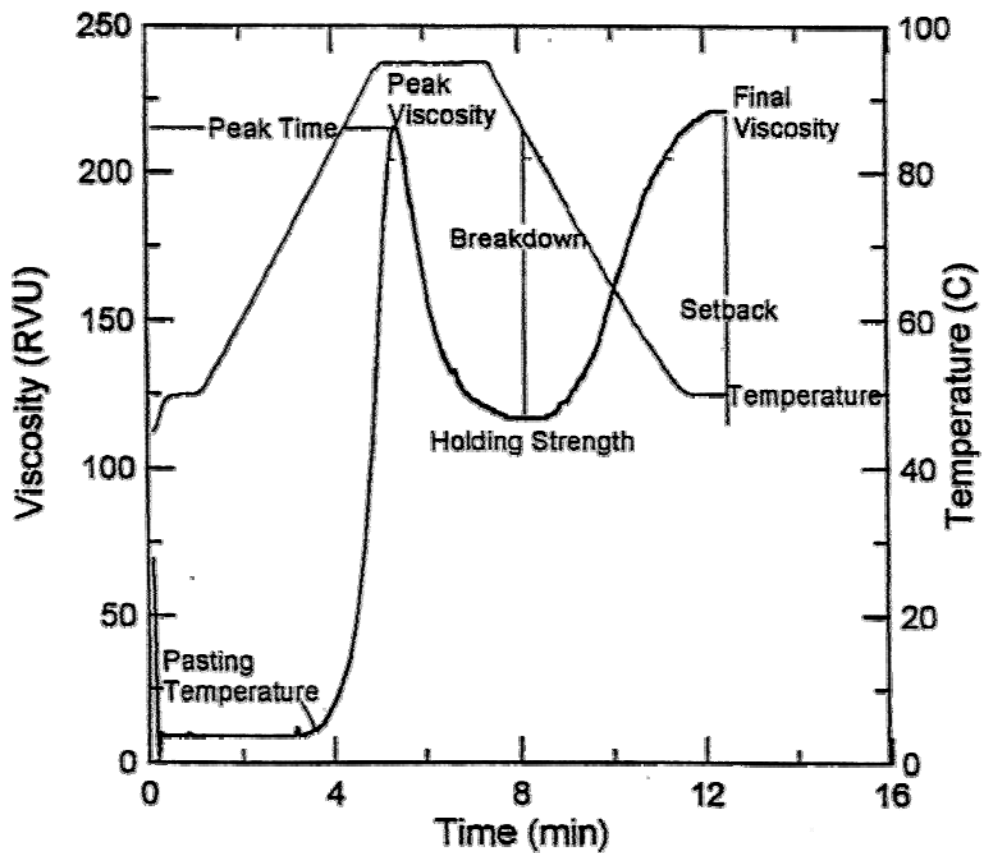
Mixogram Curve



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

ACKNOWLEDGEMENTS

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/SKCS: Margo Caley, B.S.; Theresa Sutton, B.S.; Susan Xiao, M.D.; Guixiang (Lucy) Lu, M.D.; Zina Haden, B.S; and Alicsa Mayer, M.S.

Analytical Lab: Kevin Fay, B.S.

Data evaluation & Written report: Yuanhong (Richard) Chen, Ph.D. (HWWQL Associate Director)

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

RPN Relational database: Scott Haley, Ph.D (Colorado State University)

Achieving acceptable end-use (milling and baking) quality is a fundamental objective of wheat breeding programs throughout the U.S. hard winter wheat region. Numerous statistical methods have been developed to measure quality. Several years ago, Dr. Scott Haley (Colorado State University), in conjunction with the USDA-ARS Hard Winter Wheat Quality Laboratory (HWWQL), developed a relational database for summarization and interpretation of regional performance nursery wheat end-use quality data generated annually by the HWWQL (Scott D. Haley, Rod D. May, Bradford W. Seabourn, and Okkyung K. Chung. 1999. *Relational database system for summarization and interpretation of Hard Winter Wheat regional quality data*. Crop Sci. 39:309–315). Until that time, few tools were available to assist in the decision-making process when faced with a large number of parameters from comprehensive milling and baking tests. The database system uses a graphical interface that requires input from the user. The database system provides simultaneous assessment of multiple quality traits on a standardized scale, *user-specified prioritization* of end-use quality traits for numerical and qualitative ratings of genotypes, tabulation of major quality deficiencies of genotypes, and summarization of quality ratings for a genotype across multiple nurseries.

Tables for milling and baking scores of each of Intraregional production zones in this report are direct outputs from the Relational Database program.

The data were provided by the Hard Winter Wheat Quality Laboratory (HWWQL), located at the USDA/ARS, Center for Grain and Animal Health Research (CGAHR) (Former name: Grain Marketing and Production Research Center, GMPRC), Manhattan, Kansas. Some data may not appear in all years.

**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

2010 NRPN Intraregional Production Zone

Entry	Selection No.	Pedigree	Source
1	Kharkof	Kharkof	check
2	Overland	Overland	check
3	Wesley	Wesley	check
4	Jerry	Jerry	check
5	NX05M4180-6	92201D5-2-29 X 99 waxy bulk	ARS-LNK
6	NE06469	UNK	UNL
7	NE06607	NE98466=(KS89H50-4/NE90518(=BRL//SXL/BENN))/WESLEY	UNL
8	NE07521	R-236 (CO970901) =(YUMA/T-57//LAMAR/3/4*YUMA/4/NEW516)/NI00436	UNL
9	NE07531	HBK0630-4-5=(HBA142A/HBZ623A//ALE)/NE98574=(CO850267/RAWHIDE	UNL
10	NW07534	KS920709-B-5-2/NW98S061	UNL
11	NE07627	KS96HW10-3=(KS91HW29// RIO BLANCO/KS91H184)/WAHOO//NE99585	UNL
12	NI07703	R-148 (G97343) =(919021/B725//K92)	UNL
13	BC01007-7	W99-331/97x0906-8	AGRIPRO NORTH
14	00X0100-51	W95-301/W98-151	AGRIPRO NORTH
15	HV9W04-1594R	KS89180B-2-1-1/CMBW91M02959T//JGR	WestBred Haven
16	HV9W05-1125R	00KSULR-73/G980039	WestBred Haven
17	CA9W06-788	Jerry/CDC Falcon	WestBred-Fargo
18	CA9W07-817	CDC Falcon/Jerry	WestBred-Fargo
19	CA9W08-856	Jerry/CDC Falcon	WestBred-Fargo
20	BZ9W05-2039	Vanguard/BZ9W96-895	WestBred-Bozeman
21	BZ9W05-2043	Rampart/Kestrel	WestBred-Bozeman
22	SD05085-1	SD92107-2/TX96D2845	SDSU
23	SD05118-1	Wesley/NE93613	SDSU
24	SD05W030	SD98W302/NW97S186	SDSU
25	SD06069	Harry/Wesley//Jerry	SDSU
26	SD06158	Wesley/CDC Falcon	SDSU
27	SD07056	CDC Falcon/SD97060//Jagalene	SDSU
28	SD07126	SD92107-2/SD99W042	SDSU
29	SD07165	SD97250/SD99W006//Avalanche	SDSU
30	SD07184	Expedition/SD97W650//KS00H10-32-1-1	SDSU
31	SD07W053	Wendy/SD00W073//KS01HW54-1	SDSU
32	MTS0532	L'Govskaya 167/Rampart//MT9409	MT State
33	MTS0713	93X312E14/NuHorizon	MT State
34	MTS0721	DMS/Rampart//Pronghorn/3/2*Rampart	MT State



Hard Winter Wheat Quality Report 2010 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	46.1	Very Poor	71.7	67.0	Very Good	100.0		6,
Overland	59.6	Very Good	92.7	30.9	Very Poor	46.1		16,
Wesley	59.0	Very Good	91.7	49.3	Good	73.5		14,15,
Jerry	53.0	Poor	82.4	49.6	Good	74.0		3,5,
NX05M4180-6	28.0	Very Poor	43.5	31.5	Very Poor	47.0	1AL	1,6,8,10,16,21,
NE06469	55.3	Poor	85.9	42.9	Average	64.1		16,
NE06607	56.2	Average	87.4	24.7	Very Poor	36.8		14,15,
NE07521	52.0	Very Poor	80.9	39.8	Average	59.3		1,5,15,20,
NE07531	56.9	Good	88.4	39.4	Average	58.8		12,13,14,15,17,
NW07534	54.8	Poor	85.1	26.9	Very Poor	40.1		5,14,15,
NE07627	55.5	Average	86.3	33.2	Poor	49.6		14,15,19,
NI07703	54.9	Poor	85.3	29.3	Very Poor	43.7		3,16,
Wolf	58.4	Good	90.7	25.2	Very Poor	37.6		9,16,
SY Gold	56.7	Good	88.2	34.5	Poor	51.5		
HV9W04-1594R	51.7	Very Poor	80.4	40.7	Average	60.7	1BL	9,15,
HV9W05-1125R	55.4	Average	86.2	49.0	Good	73.0		16,
CA9W06-788	52.2	Very Poor	81.1	50.8	Good	75.8		14,15,
CA9W07-817	55.5	Average	86.3	53.4	Very Good	79.6		15,
CA9W08-856	53.3	Poor	82.9	39.0	Poor	58.2		20,
BZ9W05-2039	46.6	Very Poor	72.5	54.1	Very Good	80.7		1,2,4,8,14,15,
BZ9W05-2043	60.6	Very Good	94.3	44.9	Good	67.0		2,
SD05085-1	64.3	Very Good	100.0	43.7	Average	65.2		14,15,
SD05118-1	58.8	Good	91.4	52.8	Very Good	78.8		15,
SD05W030	54.7	Poor	85.0	49.1	Good	73.3	1BL	16,
SD06069	56.4	Good	87.7	33.6	Poor	50.1		14,15,
SD06158	56.3	Average	87.4	35.3	Poor	52.7		15,
SD07056	60.6	Very Good	94.2	39.1	Average	58.3		16,
SD07126	58.2	Good	90.5	36.1	Poor	53.9		15,
SD07165	57.3	Good	89.1	43.5	Average	64.8		14,15,
SD07184	59.9	Very Good	93.1	51.5	Very Good	76.8		16,

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 2010 NRPN-NCP

1 - Test weight	10	11 - Flour protein	8
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3 - Kernel weight SD	8	13 - Mixograph absorption	5
4 - SKCS kernel diameter	8	14 - Bake mix time	10
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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
SD07W053	55.9	Average	86.9	48.9	Good	72.9	1BL	
MTS0532	54.8	Poor	85.2	53.9	Very Good	80.5		
MTS0713	51.7	Very Poor	80.4	34.3	Poor	51.2		9,10,14,15,
MTS0721	55.6	Average	86.4	31.0	Very Poor	46.2		2,4,16,

2010 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	58.0	11.9	0.7	30.3	8.0	2.63	0.32	38	24	MIXED	46--21--13--20--03
Overland	57.3	12.4	0.9	31.3	8.1	2.62	0.33	58	14	HARD	02--17--36--45--01
Wesley	57.6	11.9	0.8	32.6	9.1	2.70	0.36	56	16	HARD	06--22--33--39--02
Jerry	57.7	12.0	0.7	35.4	10.5	2.73	0.40	48	18	MIXED	19--28--27--26--03
NX05M4180-6	53.9	12.3	0.7	28.7	7.8	2.57	0.33	29	19	SOFT	59--22--13--06--04
NE06469	58.2	12.1	0.9	33.3	9.7	2.72	0.37	54	16	HARD	08--22--35--35--02
NE06607	57.3	11.3	0.7	30.9	9.7	2.62	0.36	53	17	MIXED	11--25--32--32--03
NE07521	55.0	11.8	0.6	33.0	9.9	2.74	0.41	60	17	HARD	07--15--27--51--02
NE07531	57.2	11.7	0.8	28.5	8.1	2.55	0.34	52	16	MIXED	11--27--30--32--03
NW07534	57.4	11.7	0.9	33.0	9.9	2.72	0.42	59	16	HARD	04--15--35--46--01
NE07627	57.9	11.8	0.9	28.2	8.2	2.55	0.32	58	16	HARD	06--18--31--45--02
NI07703	58.5	11.9	0.9	33.7	10.5	2.70	0.38	53	16	HARD	10--22--35--33--02
BC01007-7	59.1	12.2	0.9	29.4	8.5	2.58	0.34	62	16	HARD	04--10--27--59--01
00X0100-51	57.7	11.7	0.8	29.2	7.7	2.59	0.31	59	15	HARD	04--17--30--49--01
HV9W04-1594R	57.4	11.8	0.9	28.1	8.4	2.57	0.33	76	16	HARD	01--03--11--85--01
HV9W05-1125R	58.2	11.8	0.8	30.1	8.5	2.63	0.29	60	15	HARD	02--16--28--54--01
CA9W06-788	58.0	11.8	0.8	30.8	8.4	2.61	0.35	58	16	HARD	06--20--27--47--02
CA9W07-817	58.8	11.9	0.9	33.1	9.3	2.69	0.31	59	16	HARD	04--15--29--52--01
CA9W08-856	59.6	12.0	0.9	31.2	8.4	2.60	0.33	59	15	HARD	05--15--31--49--01
BZ9W05-2039	56.0	11.7	0.8	25.1	7.6	2.46	0.30	67	16	HARD	01--06--21--72--01
BZ9W05-2043	58.1	11.5	1.0	26.7	7.1	2.51	0.30	62	16	HARD	05--12--27--56--01
SD05085-1	60.5	12.1	1.0	33.3	8.8	2.71	0.34	54	16	HARD	09--22--37--32--02
SD05118-1	58.9	11.5	0.9	30.2	8.5	2.60	0.32	55	16	HARD	08--23--31--38--02
SD05W030	59.0	11.8	0.9	29.8	9.0	2.57	0.37	56	17	HARD	07--19--33--41--02
SD06069	58.8	11.3	0.7	30.3	8.6	2.58	0.33	55	16	HARD	08--21--33--38--02
SD06158	58.7	11.4	0.6	29.7	8.8	2.56	0.35	57	15	HARD	05--20--28--47--01
SD07056	59.0	11.8	0.8	30.9	8.4	2.63	0.31	62	16	HARD	01--15--30--54--01
SD07126	59.0	11.3	0.7	30.0	9.0	2.54	0.35	59	15	HARD	02--19--34--45--01
SD07165	59.1	11.6	0.7	31.0	9.2	2.64	0.36	54	16	HARD	07--27--31--35--02
SD07184	60.0	11.5	0.7	31.9	7.8	2.65	0.31	52	15	HARD	09--26--33--32--02
SD07W053	59.2	11.6	0.6	30.9	9.2	2.64	0.35	66	16	HARD	04--06--22--68--01
MTS0532	58.0	11.6	0.6	30.1	9.1	2.50	0.34	57	17	HARD	08--18--25--49--02
MTS0713	58.8	11.4	0.6	29.6	9.5	2.62	0.37	71	16	HARD	01--04--16--79--01
MTS0721	56.9	11.6	0.6	25.4	6.8	2.45	0.31	68	16	HARD	01--06--23--70--01

2010 NRPN Intraregional Production Zone

North Central Plains

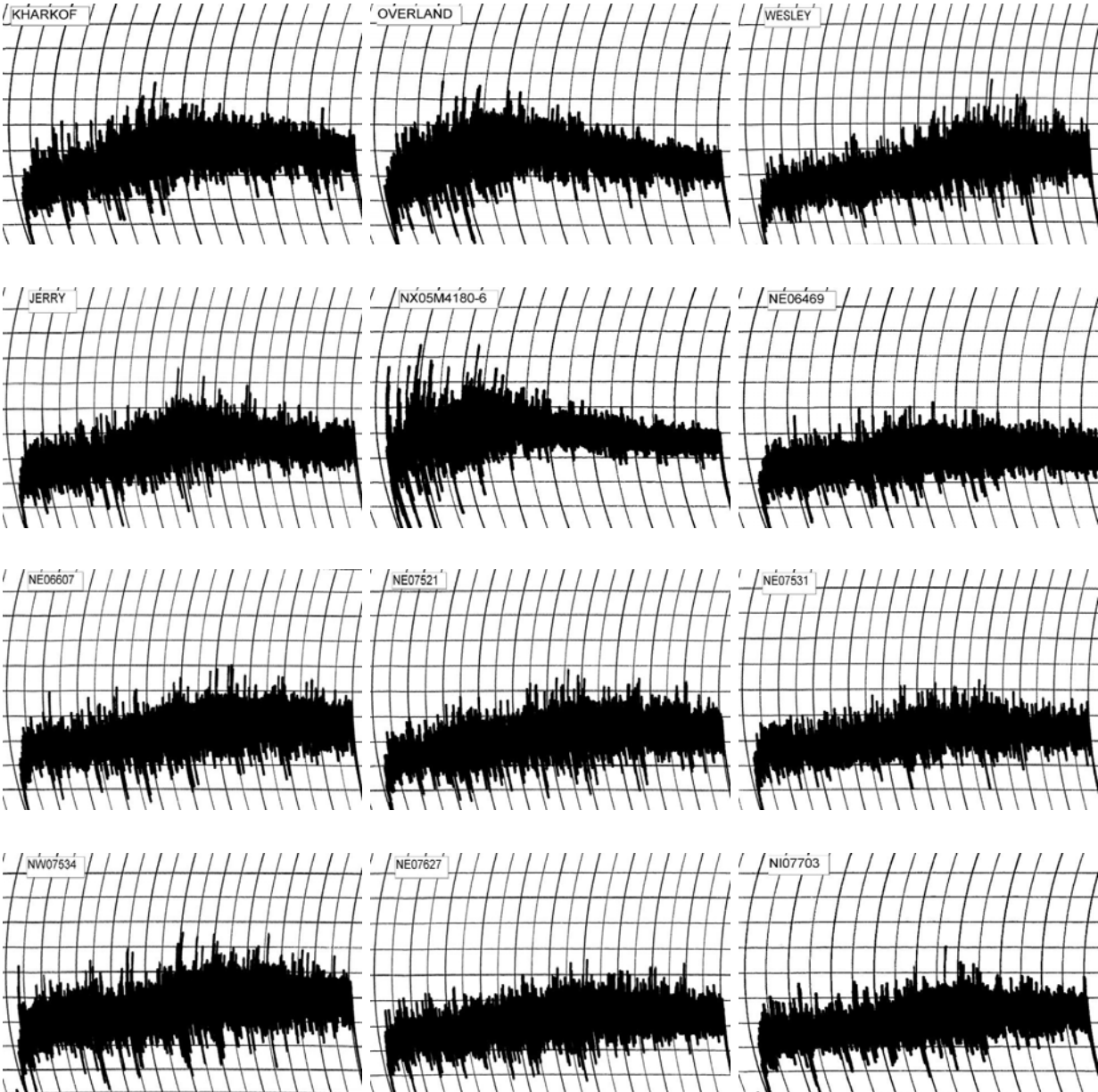
LINE	Wheat		Flour			Noodle Color					
	Protein	Milling Yield	Ash	Protein	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
	(%)	(%)	(%)	(%)							
Kharkof	14.1	69.0	0.42	12.5	0.661	80.30	-1.96	21.76	-12.33	1.28	3.33
Overland	12.0	72.3	0.43	10.8	0.626	80.71	-1.77	20.90	-11.74	1.07	2.89
Wesley	12.3	72.5	0.40	11.2	0.823	80.96	-1.80	20.87	-10.90	0.96	2.61
Jerry	13.1	71.0	0.40	11.7	0.677	80.57	-1.78	22.78	-10.46	0.64	3.16
NX05M4180-6	11.5	58.9	0.42	10.3	0.622	85.04	-2.83	20.82	-11.99	0.66	7.62
NE06469	11.7	70.4	0.41	10.3	0.722	80.54	-2.31	23.78	-10.44	1.19	2.49
NE06607	11.5	72.3	0.37	10.4	0.791	82.21	-1.80	19.54	-11.45	0.76	4.20
NE07521	12.5	70.2	0.38	11.3	0.517	80.73	-1.38	20.09	-11.30	0.68	4.27
NE07531	11.6	71.7	0.36	10.5	0.652	80.58	-2.05	22.24	-10.39	1.31	3.08
NW07534	12.5	70.2	0.38	10.8	0.724	81.79	-1.81	21.07	-12.08	1.20	3.59
NE07627	11.5	70.6	0.40	10.2	0.657	80.28	-1.99	22.66	-9.81	0.83	2.39
NI07703	11.5	70.6	0.40	10.3	0.591	82.11	-1.90	21.39	-11.08	0.51	5.58
BC01007-7	12.4	72.1	0.46	11.0	0.724	80.43	-2.03	22.48	-12.01	0.99	3.46
00X0100-51	11.9	69.9	0.38	10.4	0.574	80.22	-1.80	22.46	-9.82	0.79	3.13
HV9W04-1594R	11.9	67.8	0.46	10.7	0.445	81.94	-1.68	20.93	-11.58	0.69	5.11
HV9W05-1125R	12.4	69.6	0.45	11.0	0.743	80.47	-1.85	22.14	-11.32	0.97	2.37
CA9W06-788	13.1	68.6	0.43	11.9	0.676	80.94	-1.65	20.96	-11.26	0.74	3.60
CA9W07-817	13.0	69.2	0.42	12.0	0.647	80.52	-1.72	22.06	-6.22	0.80	3.05
CA9W08-856	13.1	67.5	0.42	12.0	0.709	81.40	-2.12	22.77	-10.13	0.82	2.58
BZ9W05-2039	13.4	65.4	0.40	12.1	0.875	81.86	-1.53	19.80	-11.78	0.33	3.51
BZ9W05-2043	12.5	71.9	0.35	11.6	0.822	81.06	-1.71	21.19	-10.92	0.31	3.52
SD05085-1	12.1	73.7	0.39	10.8	0.520	81.71	-2.23	21.93	-9.80	0.72	3.29
SD05118-1	12.3	71.6	0.37	11.0	0.674	81.81	-2.23	22.54	-9.16	0.65	2.79
SD05W030	12.0	70.5	0.40	10.4	0.386	82.25	-2.45	22.98	-8.67	0.63	4.80
SD06069	12.4	70.6	0.40	11.2	0.773	80.84	-1.45	18.84	-10.24	0.59	3.64
SD06158	12.8	70.6	0.41	11.6	0.812	81.54	-1.77	19.07	-11.86	1.08	2.86
SD07056	12.2	72.7	0.45	10.7	0.662	80.12	-1.58	20.17	-11.97	0.96	-1.56
SD07126	13.2	71.6	0.40	12.0	0.745	79.79	-1.64	21.40	-11.49	0.89	2.92
SD07165	12.1	71.0	0.37	10.9	0.687	81.66	-2.17	21.20	-10.89	0.91	4.15
SD07184	12.6	70.4	0.38	11.1	0.671	80.56	-2.43	22.90	-10.74	1.22	2.53
SD07W053	13.6	69.3	0.40	12.3	0.793	80.41	-2.19	25.03	-9.79	0.56	2.72
MTS0532	13.2	71.4	0.41	12.0	0.880	80.76	-2.00	22.87	-12.98	1.10	3.18
MTS0713	13.1	68.3	0.47	11.9	0.722	79.87	-1.91	24.13	-11.16	0.69	0.90
MTS0721	12.0	70.2	0.42	10.8	0.869	81.05	-2.12	21.83	-11.68	0.88	2.63

2010 NRPN Intraregional Production Zone

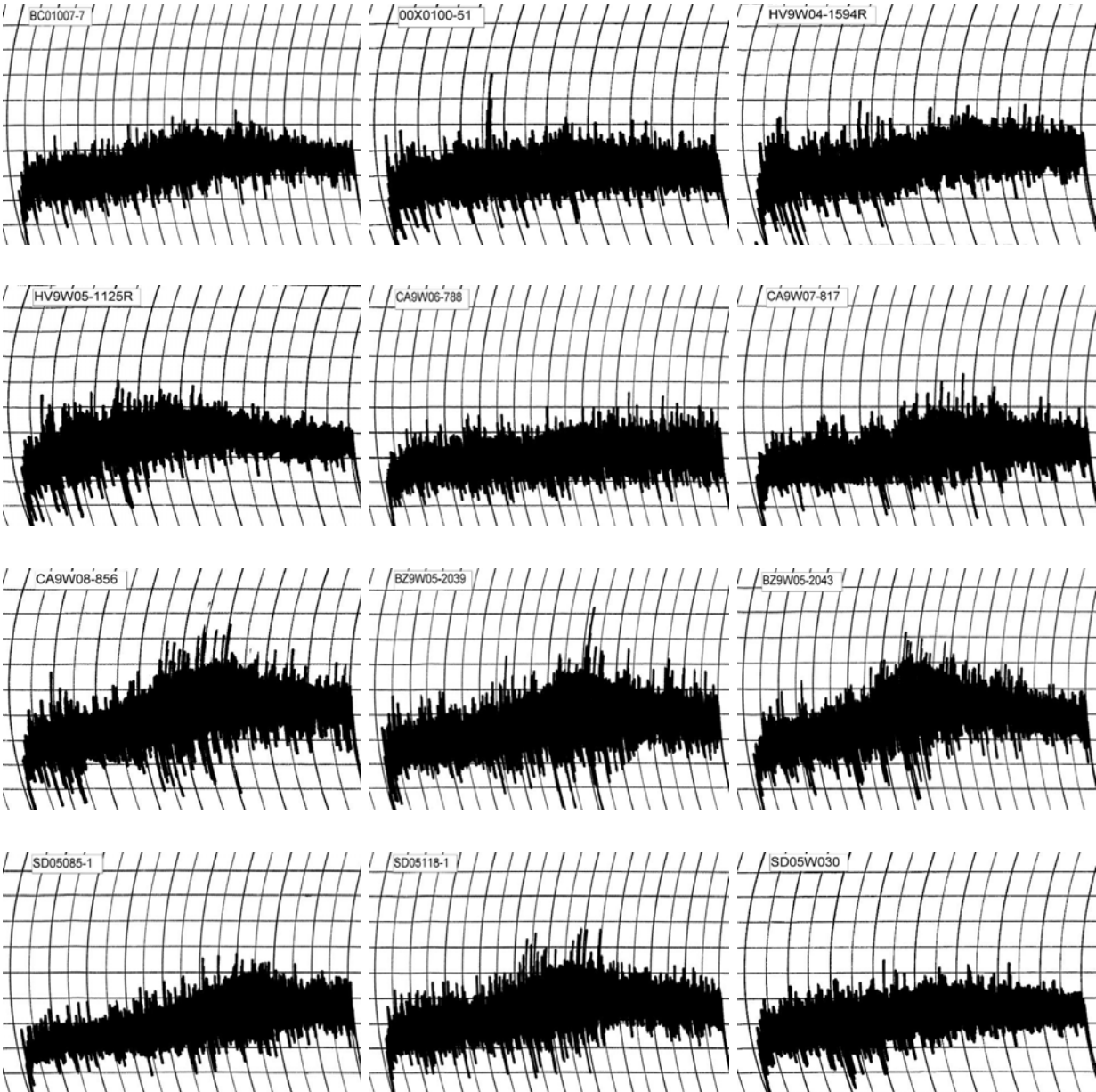
North Central Plains

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	12.5	63.8	4.00	4.00	4
Overland	10.8	60.8	2.75	2.34	2
Wesley	11.2	60.7	7.00	6.35	4
Jerry	11.7	61.3	5.13	4.92	3
NX05M4180-6	10.3	61.2	2.50	2.00	1
NE06469	10.3	60.1	4.38	3.50	2
NE06607	10.4	60.2	6.13	4.94	4
NE07521	11.3	61.7	5.88	5.37	4
NE07531	10.5	58.4	5.50	4.49	3
NW07534	10.8	61.0	6.13	5.27	5
NE07627	10.2	59.9	6.00	4.70	3
NI07703	10.3	60.1	5.13	4.09	2
BC01007-7	11.0	59.2	5.13	4.50	2
00X0100-51	10.4	60.4	4.50	3.66	4
HV9W04-1594R	10.7	60.8	5.38	4.56	4
HV9W05-1125R	11.0	61.3	3.50	3.09	2
CA9W06-788	11.9	61.8	7.00	6.91	5
CA9W07-817	12.0	62.9	5.38	5.37	4
CA9W08-856	12.0	64.4	5.00	4.98	5
BZ9W05-2039	12.1	63.2	5.88	5.88	5
BZ9W05-2043	11.6	61.2	5.00	4.75	4
SD05085-1	10.8	59.9	6.63	5.65	3
SD05118-1	11.0	61.3	5.75	5.08	4
SD05W030	10.4	60.2	4.38	3.52	2
SD06069	11.2	61.6	5.75	5.21	5
SD06158	11.6	62.3	6.25	5.96	4
SD07056	10.7	59.7	2.75	2.31	2
SD07126	12.0	61.9	5.38	5.36	3
SD07165	10.9	61.1	6.38	5.52	4
SD07184	11.1	59.9	3.63	3.24	2
SD07W053	12.3	60.0	4.13	4.13	3
MTS0532	12.0	61.9	5.00	4.98	3
MTS0713	11.9	61.7	7.00	6.91	4
MTS0721	10.8	60.9	4.63	3.95	2

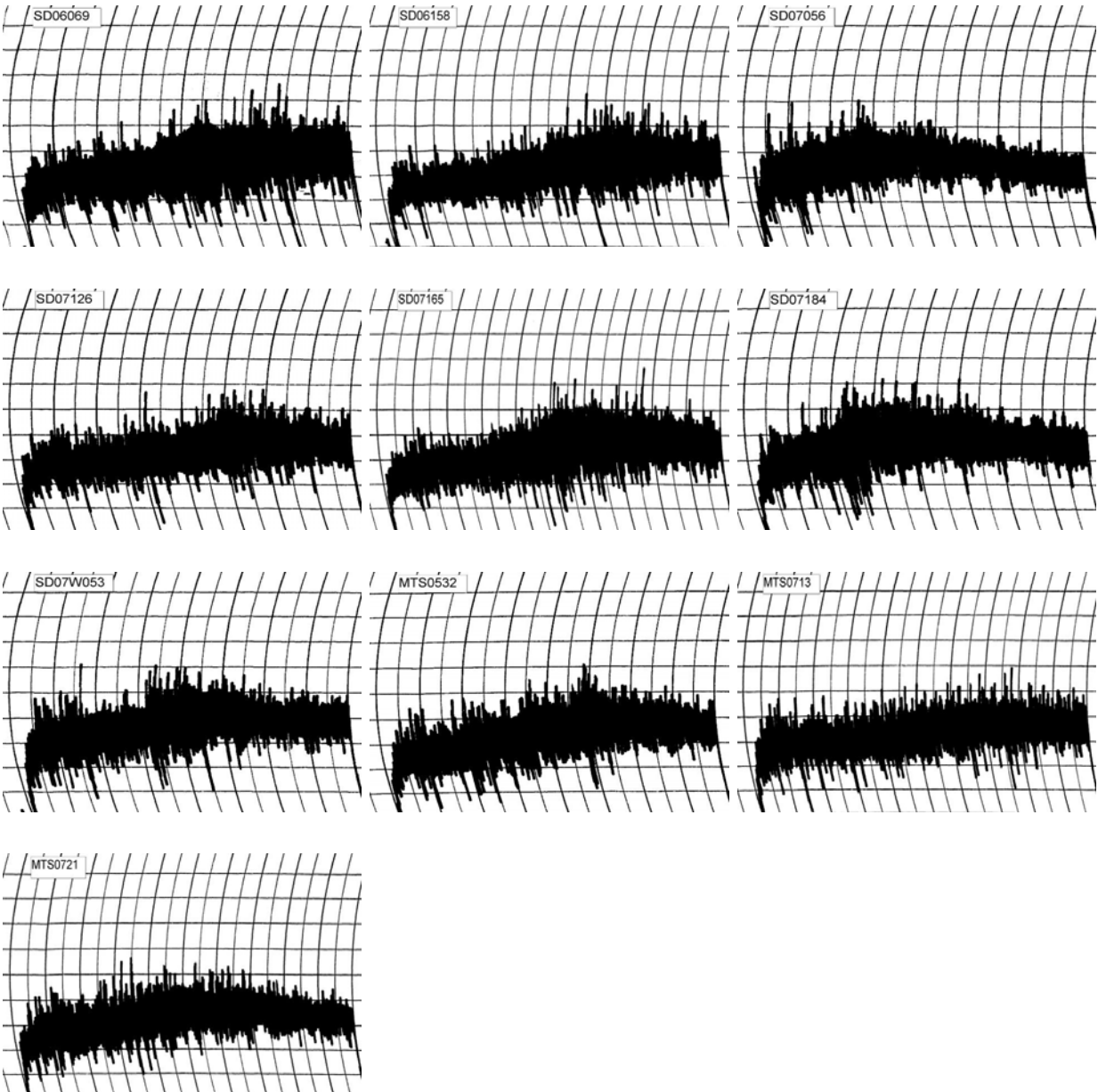
2010 NRPN Intraregional Production Zone North Central Plains



2010 NRPN Intraregional Production Zone North Central Plains



2010 NRPN Intraregional Production Zone North Central Plains



2010 NRPN Intraregional Production Zone

North Central Plains

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	153.58	217.58	150.75	66.83	262.58	111.83	6.33	86.50
Overland	128.00	209.58	145.00	64.58	259.75	114.75	6.27	66.90
Wesley	120.67	206.83	137.25	69.58	260.75	123.50	6.13	66.95
Jerry	126.00	176.42	115.17	61.25	216.00	100.83	6.07	67.00
NX05M4180-6	76.25	76.08	30.67	45.42	45.75	15.08	3.73	68.55
NE06469	118.08	170.33	108.25	62.08	198.92	90.67	6.13	68.70
NE06607	97.67	255.08	147.25	107.83	249.67	102.42	6.20	66.20
NE07521	120.92	214.58	147.58	67.00	272.17	124.58	6.20	66.85
NE07531	132.67	238.33	166.58	71.75	294.08	127.50	6.33	67.70
NW07534	108.67	150.00	81.58	68.42	170.33	88.75	5.73	67.70
NE07627	113.75	170.00	105.08	64.92	206.00	100.92	5.93	67.00
NI07703	102.92	198.58	112.75	85.83	214.17	101.42	6.00	66.90
BC01007-7	114.75	167.33	103.58	63.75	202.08	98.50	5.87	66.85
00X0100-51	129.42	193.33	126.08	67.25	242.50	116.42	6.07	66.95
HV9W04-1594R	127.67	172.08	109.42	62.67	206.83	97.42	6.07	67.70
HV9W05-1125R	132.17	230.17	158.67	71.50	285.58	126.92	6.20	66.10
CA9W06-788	130.33	185.83	123.58	62.25	234.75	111.17	6.13	67.80
CA9W07-817	134.00	204.50	148.50	56.00	261.17	112.67	6.27	66.95
CA9W08-856	152.42	203.25	151.83	51.42	269.75	117.92	6.27	67.80
BZ9W05-2039	131.25	184.42	124.08	60.33	236.92	112.83	6.00	84.85
BZ9W05-2043	114.50	205.67	135.67	70.00	254.42	118.75	6.07	66.90
SD05085-1	118.00	199.67	136.08	63.58	256.25	120.17	6.13	67.80
SD05118-1	107.92	164.67	89.75	74.92	180.58	90.83	5.80	67.80
SD05W030	112.25	146.08	82.42	63.67	171.50	89.08	5.73	82.30
SD06069	149.58	200.67	149.25	51.42	263.17	113.92	6.27	86.40
SD06158	145.75	200.83	149.83	51.00	265.00	115.17	6.27	86.50
SD07056	127.58	205.83	141.08	64.75	257.25	116.17	6.20	66.05
SD07126	136.25	211.33	133.42	77.92	245.42	112.00	6.13	67.00
SD07165	123.58	222.17	151.67	70.50	267.67	116.00	6.27	67.70
SD07184	130.42	218.75	149.08	69.67	262.08	113.00	6.27	67.80
SD07W053	142.58	223.42	156.67	66.75	270.33	113.67	6.40	67.80
MTS0532	102.17	133.67	60.50	73.17	132.25	71.75	5.47	67.75
MTS0713	113.17	178.50	107.33	71.17	206.67	99.33	6.07	67.80
MTS0721	118.83	230.58	147.33	83.25	275.08	127.75	6.13	66.10

2010 NRPN Intraregional Production Zone

North Central Plains

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	Loaf Volume	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	12.5	64.0	5.25	5.25	176.8	7.7	5.0	935	6.2	67
Overland	10.8	60.8	3.50	2.98	170.6	7.5	2.5	870	5.8	73
Wesley	11.2	60.6	8.50	7.71	169.2	7.8	5.0	945	6.4	78
Jerry	11.7	61.4	5.88	5.64	170.5	7.6	4.0	890	6.0	68
NX05M4180-6	10.3	60.5	3.38	2.70	170.5	7.5	0.0	895	6.0	80
NE06469	10.3	61.3	5.88	4.69	170.6	7.5	3.0	860	5.7	75
NE06607	10.4	60.5	8.50	6.85	169.6	7.5	4.8	875	5.9	77
NE07521	11.3	61.2	6.50	5.94	170.1	7.6	3.0	850	5.7	66
NE07531	10.5	59.5	8.63	7.04	168.3	7.4	4.0	905	6.2	80
NW07534	10.8	62.6	8.13	6.99	171.3	7.7	3.5	855	5.7	70
NE07627	10.2	61.5	7.50	5.87	170.4	7.6	3.0	825	5.6	72
NI07703	10.3	60.3	6.00	4.79	170.3	7.3	3.5	855	5.8	75
BC01007-7	11.0	60.2	6.88	6.03	169.8	7.5	2.5	835	5.6	67
00X0100-51	10.4	61.6	5.75	4.68	170.8	7.4	2.5	850	5.7	73
HV9W04-1594R	10.7	61.5	6.00	5.09	171.6	7.5	3.0	830	5.5	68
HV9W05-1125R	11.0	61.5	4.63	4.09	171.0	8.0	3.0	895	5.9	74
CA9W06-788	11.9	62.0	7.88	7.78	170.2	9.0	4.0	990	6.7	78
CA9W07-817	12.0	62.4	6.25	6.23	171.4	8.0	4.0	935	6.2	71
CA9W08-856	12.0	64.6	6.38	6.36	173.6	7.2	3.5	890	5.9	66
BZ9W05-2039	12.1	63.4	8.50	8.50	172.3	8.0	5.0	940	6.3	70
BZ9W05-2043	11.6	61.5	7.13	6.77	170.1	7.8	3.0	940	6.3	74
SD05085-1	10.8	60.3	8.00	6.81	169.7	7.6	5.0	875	5.8	73
SD05118-1	11.0	61.6	7.00	6.18	170.3	7.7	5.0	930	6.3	78
SD05W030	10.4	60.5	5.63	4.53	169.6	7.6	4.0	880	5.9	78
SD06069	11.2	61.7	7.75	7.02	170.8	8.0	5.5	960	6.5	80
SD06158	11.6	61.6	6.75	6.43	170.4	7.9	4.5	950	6.4	75
SD07056	10.7	60.3	3.88	3.26	170.1	7.4	3.0	835	5.6	69
SD07126	12.0	62.6	6.75	6.72	171.6	7.9	3.8	950	6.4	72
SD07165	10.9	62.5	9.25	8.00	171.2	7.6	4.0	900	6.1	76
SD07184	11.1	61.6	5.50	4.91	170.4	7.2	4.0	885	6.0	72
SD07W053	12.3	61.5	5.63	5.63	170.4	7.3	3.0	920	6.2	67
MTS0532	12.0	62.5	6.13	6.11	170.9	7.8	4.0	950	6.4	72
MTS0713	11.9	61.3	7.25	7.16	170.6	7.8	3.5	965	6.6	75
MTS0721	10.8	60.5	5.88	5.02	170.3	7.6	3.5	845	5.7	69

NRPN Sample ID List

Entry	Breeder ID	HWWQL ID		
		North Central Plains	Northern High Plains	Northern Plains
1	Kharkof	10-NNC1101	10-NNH1101	10-NNP1101
2	Overland	10-NNC1102	10-NNH1102	10-NNP1102
3	Wesley	10-NNC1103	10-NNH1103	10-NNP1103
4	Jerry	10-NNC1104	10-NNH1104	10-NNP1104
5	NX05M4180-6	10-NNC1105	10-NNH1105	10-NNP1105
6	NE06469	10-NNC1106	10-NNH1106	10-NNP1106
7	NE06607	10-NNC1107	10-NNH1107	10-NNP1107
8	NE07521	10-NNC1108	10-NNH1108	10-NNP1108
9	NE07531	10-NNC1109	10-NNH1109	10-NNP1109
10	NW07534	10-NNC1110	10-NNH1110	10-NNP1110
11	NE07627	10-NNC1111	10-NNH1111	10-NNP1111
12	NI07703	10-NNC1112	10-NNH1112	10-NNP1112
13	BC01007-7	10-NNC1113	10-NNH1113	10-NNP1113
14	00X0100-51	10-NNC1114	10-NNH1114	10-NNP1114
15	HV9W04-1594R	10-NNC1115	10-NNH1115	10-NNP1115
16	HV9W05-1125R	10-NNC1116	10-NNH1116	10-NNP1116
17	CA9W06-788	10-NNC1117	10-NNH1117	10-NNP1117
18	CA9W07-817	10-NNC1118	10-NNH1118	10-NNP1118
19	CA9W08-856	10-NNC1119	10-NNH1119	10-NNP1119
20	BZ9W05-2039	10-NNC1120	10-NNH1120	10-NNP1120
21	BZ9W05-2043	10-NNC1121	10-NNH1121	10-NNP1121
22	SD05085-1	10-NNC1122	10-NNH1122	10-NNP1122
23	SD05118-1	10-NNC1123	10-NNH1123	10-NNP1123
24	SD05W030	10-NNC1124	10-NNH1124	10-NNP1124
25	SD06069	10-NNC1125	10-NNH1125	10-NNP1125
26	SD06158	10-NNC1126	10-NNH1126	10-NNP1126
27	SD07056	10-NNC1127	10-NNH1127	10-NNP1127
28	SD07126	10-NNC1128	10-NNH1128	10-NNP1128
29	SD07165	10-NNC1129	10-NNH1129	10-NNP1129
30	SD07184	10-NNC1130	10-NNH1130	10-NNP1130
31	SD07W053	10-NNC1131	10-NNH1131	10-NNP1131
32	MTS0532	10-NNC1132	10-NNH1132	10-NNP1132
33	MTS0713	10-NNC1133	10-NNH1133	10-NNP1133
34	MTS0721	10-NNC1134	10-NNH1134	10-NNP1134

2010 NRPN Intraregional Production Zone North Central Plains

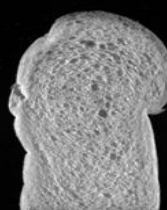
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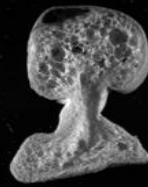
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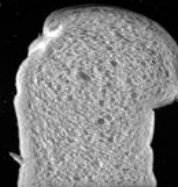
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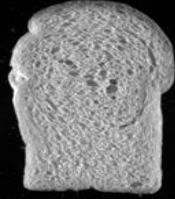
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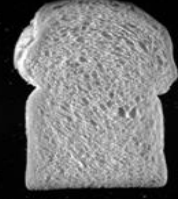
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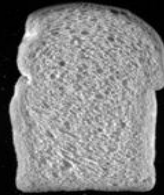
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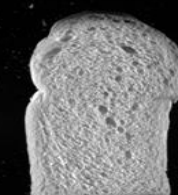
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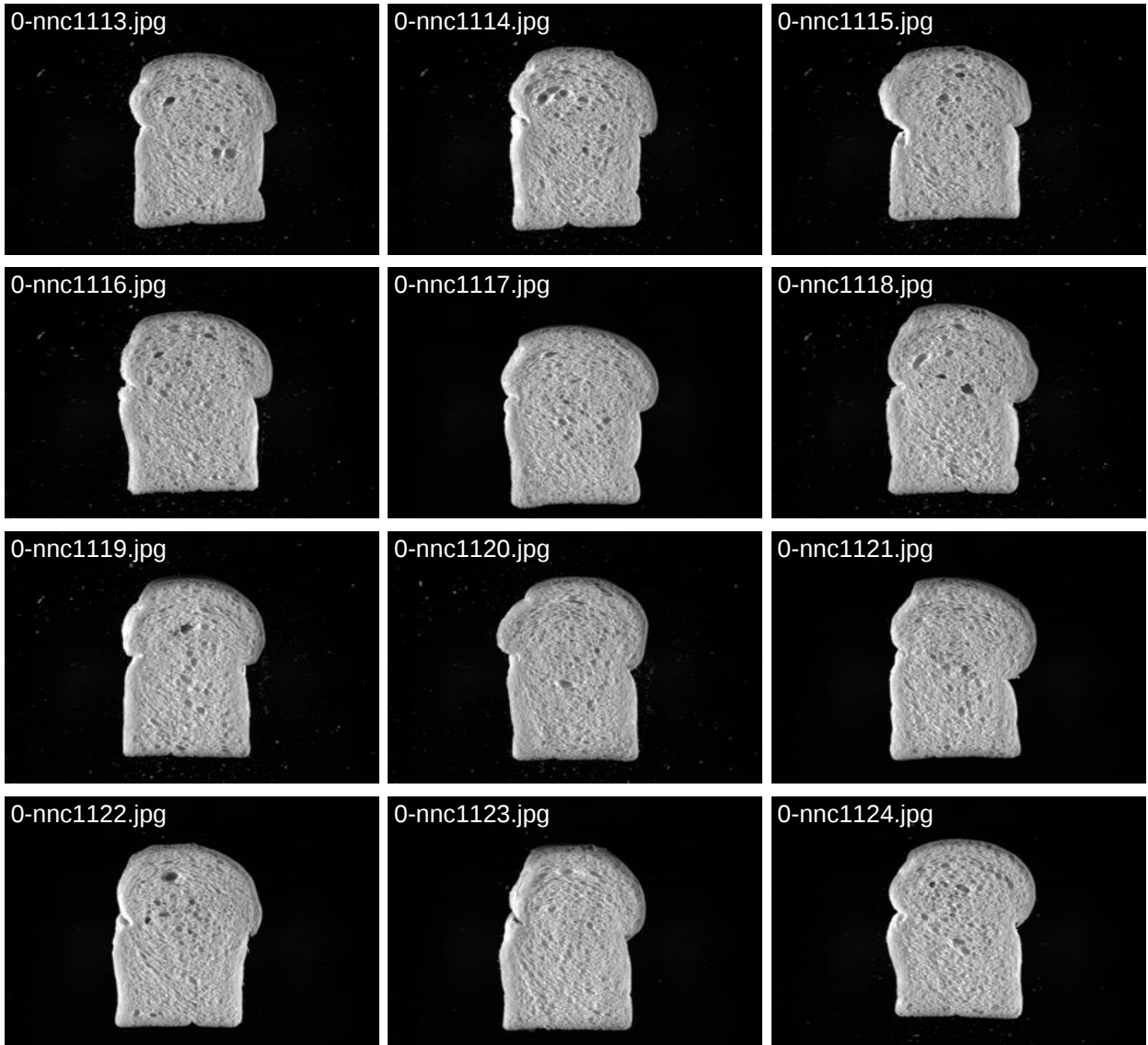
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2010 NRPN Intraregional Production Zone North Central Plains



2010 NRPN Intraregional Production Zone North Central Plains

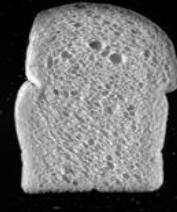
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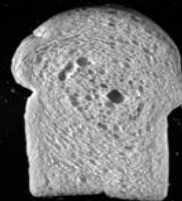
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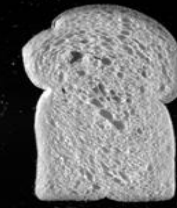
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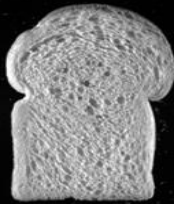
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Hard Winter Wheat Quality Report 2010 NRPN-NHP

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	49.7	Very Poor	76.6	41.1	Average	79.0		
Overland	62.4	Good	96.2	25.3	Very Poor	48.7		16,
Wesley	64.9	Very Good	100.0	49.8	Very Good	95.6		
Jerry	58.6	Poor	90.3	52.0	Very Good	100.0		5,
NX05M4180-6	33.9	Very Poor	52.2	26.8	Very Poor	51.5	1AL	1,6,8,10,15,16,21,
NE06469	61.7	Good	95.1	44.4	Good	85.4		
NE06607	63.3	Very Good	97.5	32.3	Poor	62.0		16,
NE07521	58.8	Poor	90.7	47.0	Very Good	90.3		1,3,5,
NE07531	60.5	Average	93.2	31.7	Poor	60.9		
NW07534	60.7	Good	93.6	30.7	Very Poor	59.0		
NE07627	64.6	Very Good	99.6	31.2	Poor	59.9		
NI07703	61.1	Good	94.2	34.5	Average	66.3		3,16,18,19,
Wolf	62.9	Very Good	97.0	28.8	Very Poor	55.3		16,
SY Gold	60.6	Good	93.4	32.2	Poor	61.8		12,16,19,21,
HV9W04-1594R	56.4	Very Poor	86.9	38.6	Average	74.3	1BL	10,16,21,
HV9W05-1125R	58.4	Poor	90.1	42.5	Good	81.6		2,16,
CA9W06-788	59.5	Average	91.7	46.1	Good	88.6		
CA9W07-817	59.1	Poor	91.0	51.2	Very Good	98.3		
CA9W08-856	58.9	Poor	90.7	41.0	Average	78.7		21,
BZ9W05-2039	57.9	Poor	89.2	47.6	Very Good	91.5		2,14,15,
BZ9W05-2043	63.6	Very Good	98.0	34.8	Poor	66.9		2,4,
SD05085-1	64.6	Very Good	99.6	48.4	Very Good	92.9		16,
SD05118-1	59.9	Average	92.3	46.6	Good	89.6		
SD05W030	59.6	Average	91.9	26.8	Very Poor	51.5	1BL	12,16,17,
SD06069	60.1	Average	92.7	32.7	Poor	62.9		
SD06158	59.9	Average	92.3	42.9	Good	82.5		
SD07056	61.5	Good	94.7	35.8	Average	68.8		16,
SD07126	61.5	Good	94.8	46.8	Good	90.0		
SD07165	57.2	Very Poor	88.2	25.1	Very Poor	48.3		14,15,21,
SD07184	57.5	Very Poor	88.7	44.7	Good	85.8		16,

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 2010 NRPN-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
SD07W053	56.4	Very Poor	87.0	35.0	Average	67.3	1BL	3,13,16,21,
MTS0532	59.9	Average	92.3	25.3	Very Poor	48.6		3,5,14,15,
MTS0713	56.3	Very Poor	86.8	31.3	Poor	60.1		9,10,15,
MTS0721	57.7	Poor	88.9	37.3	Average	71.7		2,9,17,19,

2010 NRPN 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	60.7	12.3	0.3	28.6	7.2	2.52	0.25	46 20	MIXED	26--31--22--21--03	
Overland	60.6	12.7	0.3	32.6	7.0	2.68	0.29	61 19	HARD	07--18--24--51--02	
Wesley	60.0	12.1	0.4	32.3	7.5	2.71	0.29	59 17	HARD	07--17--28--48--02	
Jerry	59.8	12.4	0.4	32.0	8.1	2.60	0.33	59 17	HARD	07--16--26--51--02	
NX05M4180-6	57.0	12.7	0.4	27.9	6.8	2.54	0.29	37 18	SOFT	43--31--17--09--04	
NE06469	60.2	12.7	0.4	32.2	8.2	2.68	0.31	62 16	HARD	03--13--27--57--01	
NE06607	59.4	12.2	0.4	30.9	7.1	2.61	0.29	56 16	HARD	10--19--30--41--02	
NE07521	58.1	12.5	0.3	33.7	8.3	2.74	0.32	62 19	HARD	08--15--18--59--02	
NE07531	59.8	12.4	0.3	30.1	7.5	2.63	0.31	52 19	MIXED	19--21--23--37--03	
NW07534	59.2	11.9	0.4	31.0	7.2	2.62	0.31	75 16	HARD	01--04--12--83--01	
NE07627	60.9	12.3	0.4	30.9	7.4	2.64	0.26	64 18	HARD	05--12--18--65--01	
NI07703	60.4	12.3	0.4	32.4	8.4	2.68	0.31	59 16	HARD	06--15--29--50--02	
BC01007-7	61.8	12.3	0.5	31.0	7.5	2.60	0.31	71 18	HARD	01--10--14--75--01	
00X0100-51	60.1	12.2	0.5	28.4	6.9	2.55	0.29	72 16	HARD	01--06--13--80--01	
HV9W04-1594R	59.4	12.3	0.5	26.6	6.6	2.51	0.27	85 19	HARD	00--03--07--90--01	
HV9W05-1125R	60.5	12.3	0.4	26.3	7.2	2.47	0.28	67 17	HARD	00--11--23--66--01	
CA9W06-788	60.2	12.0	0.4	28.3	7.0	2.49	0.28	67 16	HARD	01--08--22--69--01	
CA9W07-817	61.0	12.1	0.5	28.5	7.0	2.51	0.28	68 15	HARD	01--08--19--72--01	
CA9W08-856	61.6	12.1	0.4	28.6	6.9	2.52	0.29	68 15	HARD	01--06--23--70--01	
BZ9W05-2039	59.5	12.1	0.4	26.2	7.3	2.47	0.27	75 15	HARD	00--04--11--85--01	
BZ9W05-2043	59.8	12.1	0.4	25.3	6.6	2.46	0.30	70 18	HARD	02--09--15--74--01	
SD05085-1	61.7	12.5	0.4	30.9	7.6	2.65	0.30	65 17	HARD	03--12--21--64--01	
SD05118-1	61.1	12.1	0.4	29.9	7.5	2.60	0.31	63 18	HARD	04--15--23--58--01	
SD05W030	60.7	12.3	0.4	27.5	6.5	2.52	0.30	73 17	HARD	00--05--13--82--01	
SD06069	61.1	12.0	0.4	29.8	6.9	2.60	0.27	60 17	HARD	06--17--26--51--02	
SD06158	61.1	12.0	0.4	30.2	7.4	2.59	0.27	61 17	HARD	03--17--27--53--01	
SD07056	60.6	12.5	0.4	30.0	6.9	2.59	0.27	64 19	HARD	05--14--21--60--01	
SD07126	60.5	12.1	0.4	30.6	7.5	2.56	0.29	60 16	HARD	04--16--27--53--01	
SD07165	60.3	12.3	0.4	28.1	7.7	2.56	0.30	64 19	HARD	03--15--21--61--01	
SD07184	60.5	12.3	0.3	29.3	6.9	2.55	0.26	64 19	HARD	06--12--21--61--02	
SD07W053	60.3	12.2	0.4	30.0	8.3	2.62	0.31	70 15	HARD	01--05--16--78--01	
MTS0532	60.6	12.4	0.4	29.5	8.9	2.47	0.33	68 16	HARD	01--08--21--70--01	
MTS0713	61.1	12.3	0.4	28.4	7.6	2.59	0.30	77 18	HARD	01--02--11--86--01	
MTS0721	59.6	12.2	0.4	25.6	6.1	2.47	0.26	73 19	HARD	01--07--17--75--01	

2010 NRPN Intraregional Production Zone

Northern High Plains

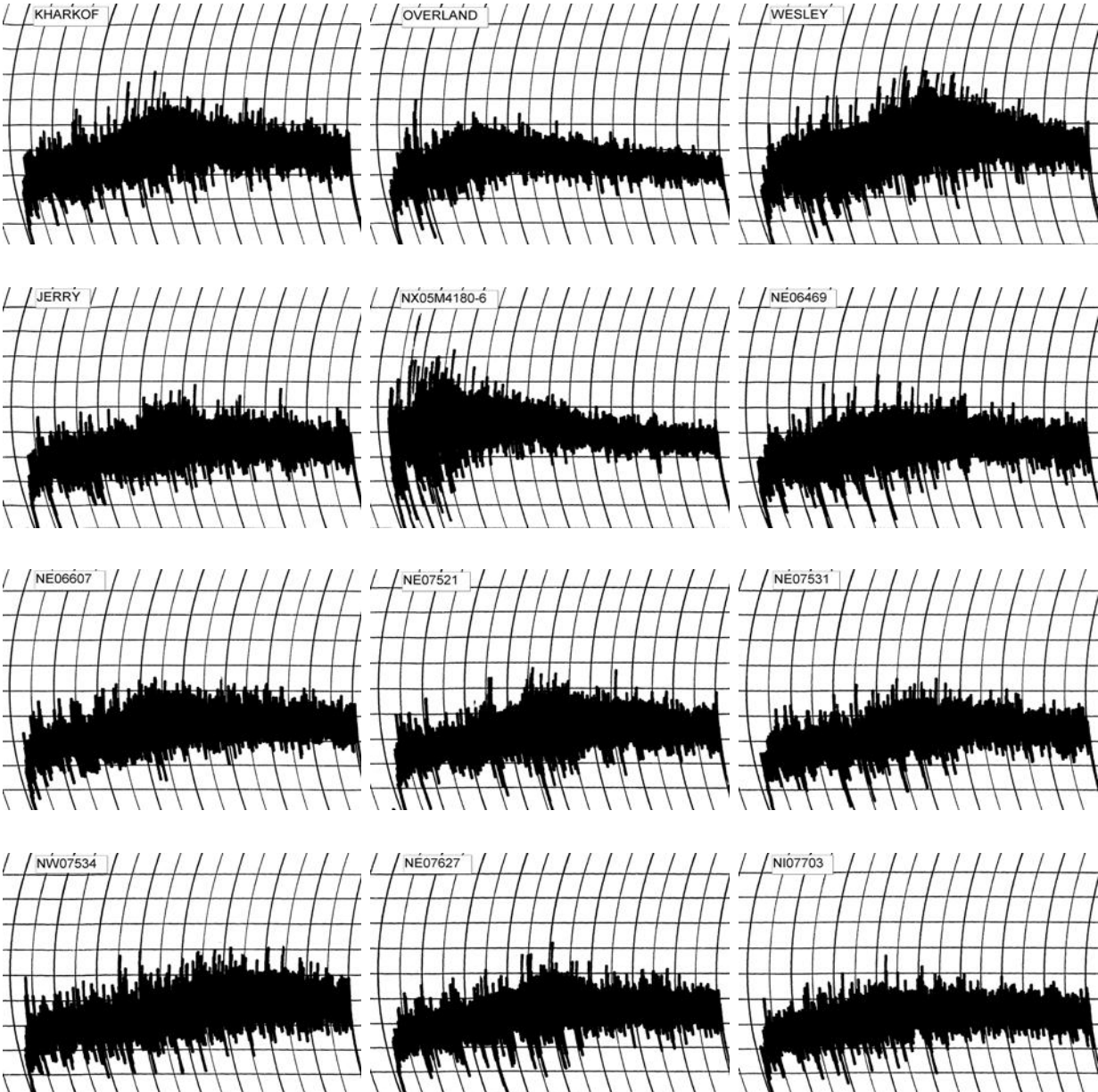
LINE	Wheat		Flour			Noodle Color					
	Protein	Milling Yield	Ash	Protein	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
	(%)	(%)	(%)	(%)							
Kharkof	13.0	66.5	0.38	11.7	0.517	83.19	-2.12	20.46	-11.36	0.72	5.10
Overland	11.0	71.5	0.41	10.0	0.532	81.55	-2.00	21.42	-10.55	0.85	4.77
Wesley	11.7	72.5	0.35	11.0	0.583	83.49	-2.42	21.20	-11.34	1.10	3.05
Jerry	12.0	70.5	0.38	11.1	0.616	81.88	-2.18	23.15	-10.20	1.02	4.27
NX05M4180-6	10.5	59.7	0.43	9.7	0.493	87.01	-3.52	22.54	-8.66	0.01	7.24
NE06469	11.4	71.0	0.39	10.2	0.728	81.18	-2.29	24.37	-10.50	1.04	3.33
NE06607	11.2	72.0	0.35	10.3	0.543	82.27	-2.33	21.97	-10.62	1.04	2.60
NE07521	11.4	71.0	0.37	10.6	0.507	82.12	-1.90	21.28	-9.43	0.90	3.22
NE07531	11.0	72.5	0.36	9.9	0.612	82.50	-2.43	23.16	-10.29	1.29	2.38
NW07534	12.1	69.3	0.39	11.0	0.651	83.38	-2.23	22.15	-11.34	0.97	4.05
NE07627	10.8	71.5	0.34	9.9	0.525	83.31	-2.08	20.72	-10.25	0.77	4.74
NI07703	10.8	71.4	0.41	10.0	0.558	81.89	-2.28	23.80	-9.49	0.82	3.67
BC01007-7	11.1	71.1	0.41	10.1	0.629	82.49	-2.54	23.83	-13.11	1.46	2.84
00X0100-51	11.3	69.4	0.38	10.0	0.515	81.70	-2.63	24.52	-10.52	1.48	1.77
HV9W04-1594R	11.9	67.9	0.44	10.7	0.415	81.21	-2.31	24.53	-11.86	1.40	2.92
HV9W05-1125R	12.1	70.2	0.41	10.9	0.669	81.83	-2.49	26.01	-11.82	1.20	-0.31
CA9W06-788	12.3	69.5	0.39	11.5	0.658	81.96	-2.42	22.74	-10.82	1.14	2.56
CA9W07-817	12.1	68.6	0.41	11.3	0.588	81.59	-2.27	23.34	-9.30	0.84	3.79
CA9W08-856	12.5	67.7	0.40	11.7	0.645	82.78	-2.34	21.54	-11.92	0.98	5.20
BZ9W05-2039	12.7	69.1	0.43	11.9	0.740	82.65	-2.16	21.17	-13.09	1.46	3.91
BZ9W05-2043	11.8	72.5	0.35	11.4	0.776	81.61	-2.04	20.86	-12.94	0.76	5.19
SD05085-1	11.0	71.8	0.40	10.1	0.521	83.00	-2.79	23.32	-10.75	1.32	2.26
SD05118-1	11.3	70.1	0.37	10.4	0.581	83.30	-3.01	22.76	-9.83	1.01	2.97
SD05W030	10.6	68.9	0.40	9.8	0.340	84.08	-2.90	23.67	-8.95	2.97	4.76
SD06069	11.2	69.3	0.37	10.2	0.621	84.32	-2.16	18.15	-10.26	0.10	5.42
SD06158	11.1	69.1	0.36	10.4	0.592	83.13	-2.39	20.06	-9.28	0.60	3.21
SD07056	11.1	71.4	0.41	10.2	0.580	81.79	-2.24	21.68	-12.45	1.57	3.54
SD07126	11.8	70.8	0.38	10.9	0.854	82.55	-2.84	24.15	-11.95	1.71	0.78
SD07165	10.7	69.6	0.37	9.9	0.651	83.69	-3.02	22.65	-12.18	2.52	1.11
SD07184	11.0	69.0	0.40	9.9	0.698	80.71	-2.90	25.03	-9.54	2.41	-1.04
SD07W053	11.7	67.8	0.43	11.0	0.692	81.22	-2.76	26.03	-9.42	1.56	1.44
MTS0532	11.6	71.1	0.39	10.7	0.855	82.96	-2.95	23.75	-11.52	1.62	3.09
MTS0713	11.5	68.0	0.46	10.5	0.738	82.59	-2.42	24.00	-11.88	1.34	1.40
MTS0721	10.9	70.0	0.44	9.9	0.802	82.37	-2.69	22.15	-11.41	1.37	2.31

2010 NRPN Intraregional Production Zone

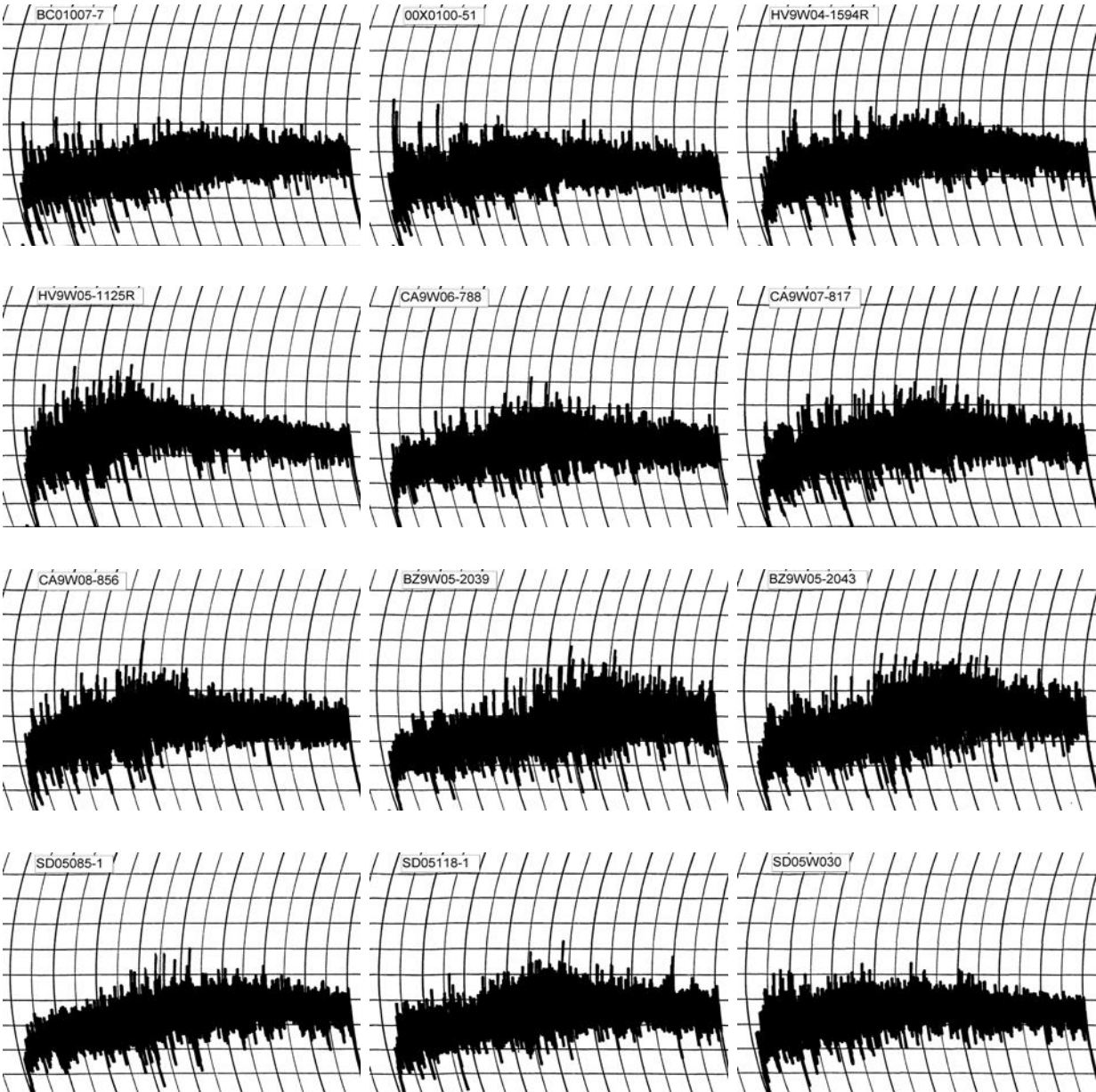
Northern High Plains

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	11.7	61.4	3.63	3.49	4
Overland	10.0	58.6	2.38	1.82	1
Wesley	11.0	60.2	4.38	3.85	4
Jerry	11.1	61.4	3.75	3.33	3
NX05M4180-6	9.7	59.2	1.50	1.09	1
NE06469	10.2	58.9	3.50	2.74	3
NE06607	10.3	60.1	3.50	2.78	2
NE07521	10.6	59.6	4.00	3.34	3
NE07531	9.9	59.4	4.13	3.07	3
NW07534	11.0	62.2	4.88	4.28	5
NE07627	9.9	59.5	4.13	3.11	4
NI07703	10.0	58.6	3.25	2.46	2
BC01007-7	10.1	58.7	4.13	3.19	2
00X0100-51	10.0	59.7	3.50	2.68	2
HV9W04-1594R	10.7	60.8	4.00	3.39	2
HV9W05-1125R	10.9	61.2	2.75	2.40	2
CA9W06-788	11.5	60.0	3.75	3.51	3
CA9W07-817	11.3	61.8	4.13	3.80	3
CA9W08-856	11.7	62.3	3.38	3.24	3
BZ9W05-2039	11.9	62.9	5.38	5.34	5
BZ9W05-2043	11.4	60.9	4.88	4.52	4
SD05085-1	10.1	58.8	4.00	3.09	2
SD05118-1	10.4	60.3	4.00	3.24	3
SD05W030	9.8	58.2	2.88	2.11	2
SD06069	10.2	59.9	4.25	3.34	3
SD06158	10.4	59.3	4.50	3.63	3
SD07056	10.2	58.8	2.63	2.05	2
SD07126	10.9	61.1	4.00	3.46	3
SD07165	9.9	59.4	5.38	4.01	4
SD07184	9.9	59.4	2.88	2.15	2
SD07W053	11.0	57.4	3.00	2.66	2
MTS0532	10.7	59.8	5.38	4.56	4
MTS0713	10.5	60.5	5.38	4.44	4
MTS0721	9.9	59.4	4.00	2.98	3

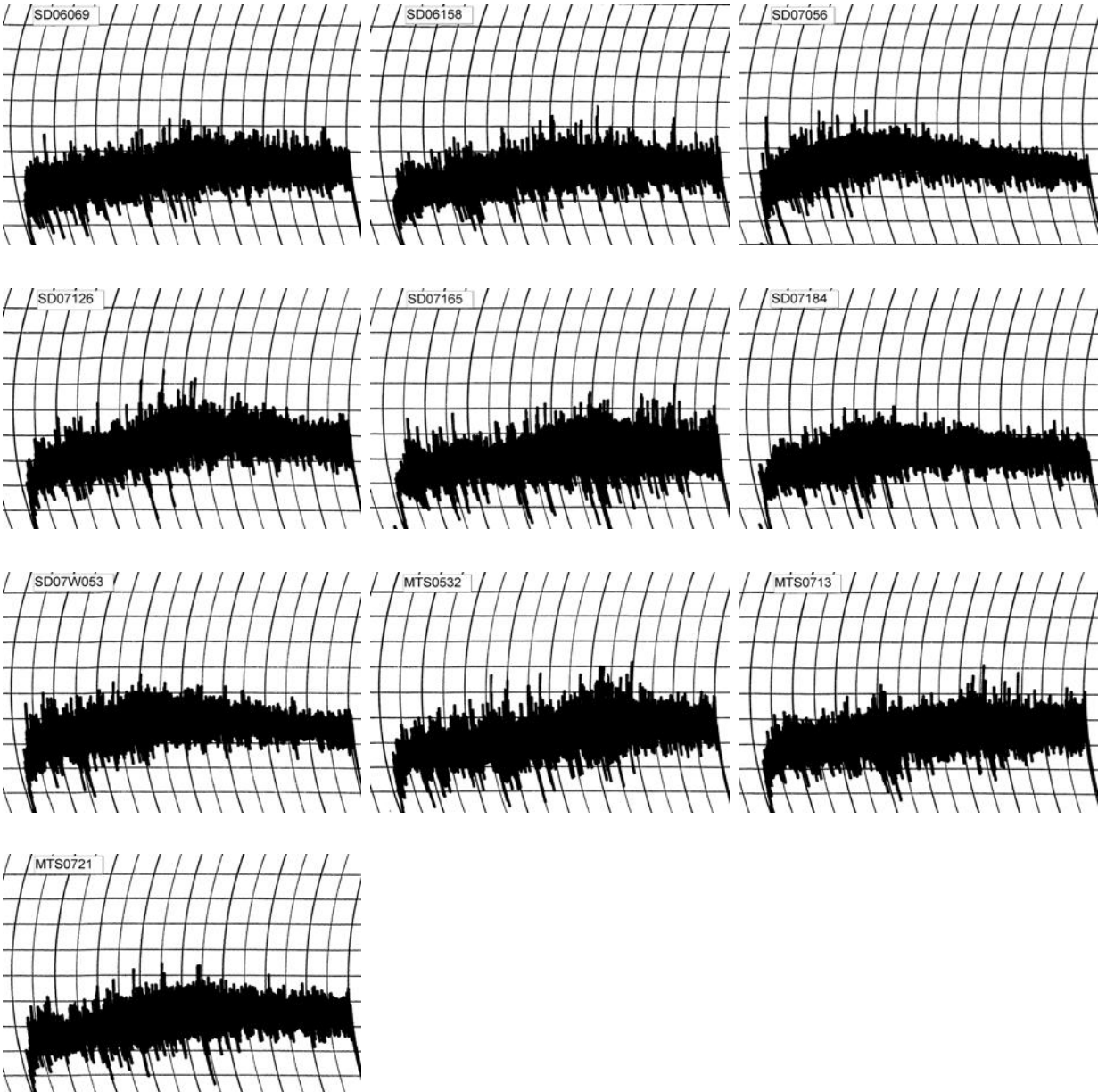
2010 NRPN Intraregional Production Zone Northern High Plains



2010 NRPN Intraregional Production Zone Northern High Plains



2010 NRPN Intraregional Production Zone Northern High Plains



2010 NRPN Intraregional Production Zone

Northern High Plains

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	150.08	223.25	155.00	68.25	261.50	106.50	6.33	86.55
Overland	128.33	210.50	141.25	69.25	252.67	111.42	6.20	86.55
Wesley	117.83	212.17	140.08	72.08	255.92	115.83	6.20	85.75
Jerry	132.67	197.67	141.08	56.58	251.83	110.75	6.20	85.75
NX05M4180-6	97.83	116.25	60.58	55.67	96.00	35.42	4.00	69.45
NE06469	130.25	202.83	134.00	68.83	235.75	101.75	6.27	87.35
NE06607	125.92	259.00	161.00	98.00	254.50	93.50	6.40	67.75
NE07521	131.67	204.58	131.42	73.17	239.50	108.08	6.20	85.65
NE07531	129.17	233.75	152.92	80.83	272.92	120.00	6.20	84.95
NW07534	135.25	209.67	136.00	73.67	242.33	106.33	6.20	84.85
NE07627	96.08	175.75	102.17	73.58	193.75	91.58	6.00	84.05
NI07703	119.67	229.08	139.83	89.25	243.67	103.83	6.20	84.85
BC01007-7	95.42	131.00	68.50	62.50	138.42	69.92	5.67	81.55
00X0100-51	127.42	194.25	125.00	69.25	227.83	102.83	6.07	84.90
HV9W04-1594R	126.42	179.33	114.33	65.00	204.17	89.83	6.13	85.70
HV9W05-1125R	115.75	223.67	156.75	66.92	273.58	116.83	6.27	67.75
CA9W06-788	146.58	219.75	168.33	51.42	288.58	120.25	6.33	87.30
CA9W07-817	148.17	198.08	151.67	46.42	260.58	108.92	6.33	88.25
CA9W08-856	167.00	211.75	171.17	40.58	291.00	119.83	6.40	86.40
BZ9W05-2039	88.92	121.67	60.33	61.33	127.17	66.83	5.53	82.40
BZ9W05-2043	116.58	198.67	134.83	63.83	242.58	107.75	6.13	84.80
SD05085-1	123.58	201.67	137.58	64.08	253.50	115.92	6.13	86.50
SD05118-1	140.00	240.92	165.50	75.42	288.25	122.75	6.33	86.55
SD05W030	136.00	185.92	122.08	63.83	222.58	100.50	6.13	84.85
SD06069	148.50	202.33	151.50	50.83	264.17	112.67	6.33	86.50
SD06158	146.83	202.58	151.75	50.83	265.08	113.33	6.33	86.45
SD07056	126.75	203.67	137.58	66.08	242.83	105.25	6.20	86.55
SD07126	150.83	242.08	169.67	72.42	282.08	112.42	6.40	86.45
SD07165	137.17	214.67	149.67	65.00	271.67	122.00	6.27	86.55
SD07184	124.42	209.92	139.92	70.00	245.75	105.83	6.27	84.85
SD07W053	138.83	207.83	139.17	68.67	246.67	107.50	6.27	85.65
MTS0532	124.83	192.50	116.83	75.67	216.92	100.08	6.00	83.25
MTS0713	119.67	170.50	101.50	69.00	193.33	91.83	6.07	86.45
MTS0721	129.25	230.08	152.67	77.42	273.00	120.33	6.20	84.90

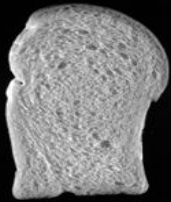
2010 NRPN Intraregional Production Zone

Northern High Plains

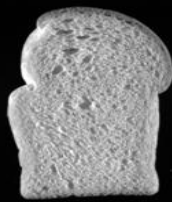
Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	Loaf Volume	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	11.7	61.4	5.25	5.05	170.5	7.5	4.2	900	6.0	69
Overland	10.0	59.0	3.38	2.58	168.1	7.2	3.5	850	5.7	77
Wesley	11.0	60.4	6.38	5.61	169.4	7.4	4.0	900	6.2	75
Jerry	11.1	61.5	5.25	4.66	170.2	7.1	4.0	850	5.7	68
NX05M4180-6	9.7	60.5	3.50	2.55	170.0	7.1	0.0	860	5.8	81
NE06469	10.2	60.2	4.88	3.83	169.2	7.1	3.0	835	5.6	73
NE06607	10.3	60.7	5.75	4.57	169.4	7.1	3.5	850	5.8	74
NE07521	10.6	59.3	5.13	4.28	168.3	7.2	4.0	810	5.5	66
NE07531	9.9	60.4	6.50	4.83	168.8	7.2	3.5	870	5.9	81
NW07534	11.0	61.5	6.50	5.70	170.3	7.2	3.5	815	5.5	64
NE07627	9.9	60.5	5.63	4.24	169.1	7.1	3.5	800	5.4	71
NI07703	10.0	59.2	5.75	4.36	168.2	6.5	3.0	765	5.2	65
BC01007-7	10.1	59.2	5.25	4.05	168.2	7.0	2.5	795	5.4	68
00X0100-51	10.0	58.5	5.25	4.01	167.6	6.9	2.0	775	5.2	66
HV9W04-1594R	10.7	60.3	4.75	4.02	169.2	7.1	2.0	830	5.6	68
HV9W05-1125R	10.9	60.3	3.50	3.06	169.6	7.3	3.0	905	6.1	76
CA9W06-788	11.5	60.4	5.13	4.80	169.3	7.2	3.0	850	5.7	65
CA9W07-817	11.3	61.3	5.00	4.60	170.5	7.2	4.0	830	5.5	63
CA9W08-856	11.7	61.3	4.38	4.20	170.4	7.1	2.0	850	5.7	63
BZ9W05-2039	11.9	62.2	7.25	7.19	170.7	7.6	4.0	880	5.9	65
BZ9W05-2043	11.4	60.5	6.13	5.68	169.6	7.6	2.5	900	6.1	71
SD05085-1	10.1	59.9	5.75	4.44	168.3	7.6	4.0	875	6.0	79
SD05118-1	10.4	60.6	5.25	4.25	169.3	6.9	4.0	795	5.3	66
SD05W030	9.8	58.3	5.13	3.77	167.3	7.1	3.8	795	5.4	71
SD06069	10.2	59.9	5.63	4.42	168.8	7.2	4.5	850	5.8	75
SD06158	10.4	60.5	6.00	4.84	169.5	7.2	3.0	880	6.0	77
SD07056	10.2	58.9	3.50	2.72	167.6	7.3	3.0	830	5.7	73
SD07126	10.9	61.4	5.13	4.44	170.4	7.2	3.0	850	5.7	69
SD07165	9.9	60.4	9.63	7.18	168.5	7.1	2.0	795	5.4	70
SD07184	9.9	59.4	5.00	3.73	168.0	7.2	4.0	810	5.5	72
SD07W053	11.0	59.4	5.13	4.54	168.1	7.1	2.0	830	5.6	65
MTS0532	10.7	61.5	7.25	6.14	169.9	7.1	3.5	820	5.5	67
MTS0713	10.5	62.2	7.00	5.78	171.0	7.3	2.5	885	6.0	77
MTS0721	9.9	59.3	5.25	3.90	166.6	7.0	3.0	745	5.1	63

2010 NRPN Intraregional Production Zone Northern High Plains

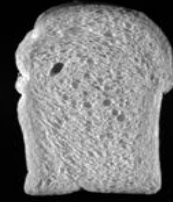
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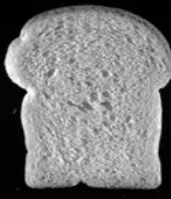
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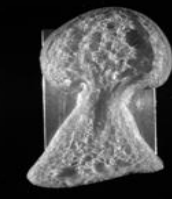
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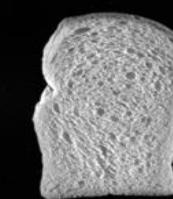
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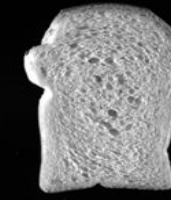
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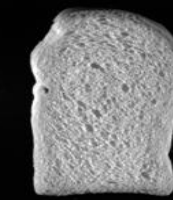
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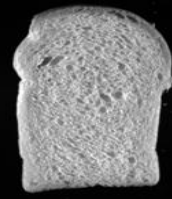
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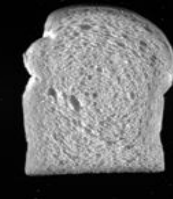
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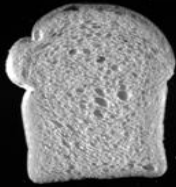


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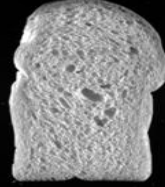


2010 NRPN Intraregional Production Zone Northern High Plains

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0-nnh1114.jpg



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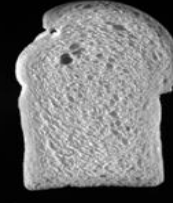
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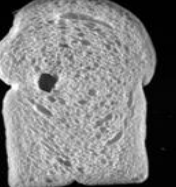
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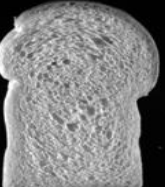
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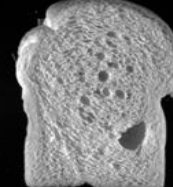
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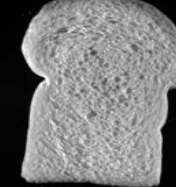
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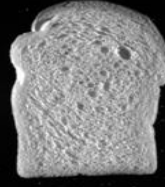
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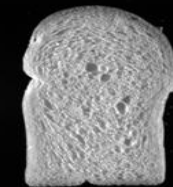
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0-nnh1123.jpg



0-nnh1124.jpg



2010 NRPN Intraregional Production Zone Northern High Plains

0-nnh1125.jpg



0-nnh1126.jpg



0-nnh1127.jpg



0-nnh1128.jpg



0-nnh1129.jpg



0-nnh1130.jpg



0-nnh1131.jpg



0-nnh1132.jpg



0-nnh1133.jpg



0-nnh1134.jpg





Hard Winter Wheat Quality Report 2010 NRPN-NP

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	40.8	Very Poor	65.3	53.0	Very Good	100.0		8,10,
Overland	58.2	Average	93.1	39.1	Good	73.8		3,5,12,16,17,
Wesley	62.0	Very Good	99.1	46.1	Very Good	87.1		14,
Jerry	50.6	Very Poor	80.8	43.1	Good	81.3		4,14,15,
NX05M4180-6	30.5	Very Poor	48.7	31.5	Average	59.4	1AL	1,8,10,15,16,21,
NE06469	61.8	Very Good	98.8	42.1	Very Good	79.4		12,17,
NE06607	62.5	Very Good	99.9	34.7	Average	65.6		15,
NE07521	53.1	Very Poor	84.8	27.7	Very Poor	52.3		1,16,
NE07531	57.0	Average	91.1	32.3	Poor	61.0		
NW07534	59.9	Good	95.7	31.1	Poor	58.8		5,14,15,21,
NE07627	57.5	Average	91.9	29.5	Very Poor	55.8		4,
NI07703	56.0	Poor	89.5	35.1	Average	66.3		16,21,
Wolf	59.6	Good	95.3	27.6	Very Poor	52.1		9,16,
SY Gold	60.6	Good	96.8	31.3	Poor	59.0		16,
HV9W04-1594R	58.0	Average	92.7	26.7	Very Poor	50.3	1BL	6,9,10,11,13,16,19,21,
HV9W05-1125R	59.4	Good	94.9	42.4	Very Good	80.0		16,21,
CA9W06-788	54.5	Very Poor	87.1	36.4	Average	68.7		21,
CA9W07-817	54.9	Poor	87.8	37.5	Good	70.7		21,
CA9W08-856	57.5	Average	91.9	39.7	Good	75.0		19,20,
BZ9W05-2039	58.4	Average	93.4	29.2	Very Poor	55.1		14,15,
BZ9W05-2043	61.9	Very Good	98.9	30.9	Poor	58.4		2,15,16,
SD05085-1	60.7	Good	97.0	44.5	Very Good	83.9		
SD05118-1	60.0	Good	95.9	41.1	Good	77.7		14,15,
SD05W030	62.6	Very Good	100.0	29.6	Poor	55.9	1BL	16,
SD06069	55.4	Poor	88.5	47.2	Very Good	89.1		14,15,
SD06158	56.1	Poor	89.7	29.4	Very Poor	55.5		14,15,
SD07056	61.0	Very Good	97.5	29.7	Poor	56.0		11,13,16,
SD07126	59.1	Good	94.4	41.8	Good	79.0		21,
SD07165	55.8	Poor	89.2	35.3	Average	66.7		14,15,
SD07184	58.2	Average	93.1	38.2	Good	72.2		

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 2010 NRPN-NP

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
SD07W053	48.4	Very Poor	77.4	34.3	Average	64.7	1BL	16,17,21,
MTS0532	55.0	Poor	87.9	28.2	Very Poor	53.3		3,14,15,
MTS0713	50.2	Very Poor	80.3	36.8	Average	69.5		3,9,15,21,
MTS0721	54.6	Poor	87.2	31.4	Poor	59.2		2,20,

2010 NRPN Intraregional Production Zone

Northern Plains

LINE	Wt/Bu (lb)	SKCS Average Kernel						Hardness			
		Moisture		Weight		Diameter		SKCS	Class	Distribution	
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)				
								(sd)			
Kharkof	59.1	11.3	0.4	26.5	7.5	2.44	0.31	52 21	MIXED	16--26--26--32--03	
Overland	61.1	13.4	0.6	31.5	10.3	2.58	0.38	69 16	HARD	01--08--18--73--01	
Wesley	60.4	13.3	0.4	32.0	9.4	2.63	0.35	67 15	HARD	01--08--19--72--01	
Jerry	58.3	13.1	0.5	27.9	9.3	2.38	0.34	64 17	HARD	03--13--25--59--01	
NX05M4180-6	56.2	14.5	0.6	28.4	7.9	2.48	0.31	40 17	MIXED	35--33--18--14--03	
NE06469	60.9	13.6	0.5	32.3	8.7	2.61	0.33	67 15	HARD	01--08--23--68--01	
NE06607	60.0	12.7	0.6	30.3	8.5	2.55	0.32	67 17	HARD	03--09--18--70--01	
NE07521	56.6	12.9	0.5	30.3	8.8	2.50	0.36	66 15	HARD	03--06--23--68--01	
NE07531	59.6	13.3	0.6	29.4	8.0	2.52	0.33	60 19	HARD	06--17--26--51--02	
NW07534	60.0	12.8	0.5	32.7	9.1	2.64	0.37	78 15	HARD	00--01--08--91--01	
NE07627	60.1	13.0	0.6	26.1	7.2	2.36	0.28	62 17	HARD	05--12--26--57--01	
NI07703	59.9	12.8	0.6	30.6	9.7	2.54	0.34	64 16	HARD	03--10--25--62--01	
BC01007-7	61.5	13.6	0.5	28.2	8.3	2.44	0.32	75 16	HARD	01--03--11--85--01	
00X0100-51	60.5	12.6	0.7	27.9	8.2	2.51	0.33	81 16	HARD	00--03--07--90--01	
HV9W04-1594R	60.3	13.3	0.5	27.6	7.0	2.49	0.28	89 17	HARD	00--01--03--96--01	
HV9W05-1125R	60.8	12.7	0.5	26.7	7.6	2.42	0.28	74 15	HARD	00--03--12--85--01	
CA9W06-788	59.5	12.4	0.5	27.7	8.1	2.45	0.33	68 15	HARD	01--06--20--73--01	
CA9W07-817	61.2	13.3	0.5	28.3	8.4	2.45	0.30	71 15	HARD	01--05--18--76--01	
CA9W08-856	61.9	12.4	0.5	28.7	8.4	2.45	0.30	69 15	HARD	00--08--17--75--01	
BZ9W05-2039	60.4	12.2	0.5	26.9	7.3	2.41	0.29	73 16	HARD	00--04--14--82--01	
BZ9W05-2043	60.0	12.6	0.5	25.7	8.0	2.43	0.29	71 16	HARD	01--06--18--75--01	
SD05085-1	61.7	12.5	0.6	30.7	9.0	2.52	0.33	61 16	HARD	04--13--25--58--01	
SD05118-1	61.1	12.5	0.6	28.3	8.3	2.49	0.34	71 16	HARD	01--06--13--80--01	
SD05W030	61.4	12.7	0.7	30.3	7.5	2.54	0.31	74 13	HARD	00--02--11--87--01	
SD06069	60.8	12.0	0.7	26.5	7.8	2.40	0.30	64 17	HARD	03--10--26--61--01	
SD06158	60.9	12.5	0.6	27.9	8.2	2.45	0.30	65 17	HARD	01--10--24--65--01	
SD07056	61.6	12.6	0.7	32.0	8.5	2.59	0.32	69 17	HARD	01--10--17--72--01	
SD07126	61.3	11.9	0.8	29.1	8.1	2.46	0.33	70 16	HARD	01--06--20--73--01	
SD07165	60.7	12.4	0.7	29.3	9.1	2.51	0.34	68 17	HARD	01--07--22--70--01	
SD07184	60.2	12.3	0.8	28.2	8.1	2.46	0.30	70 16	HARD	00--06--17--77--01	
SD07W053	58.8	12.7	0.7	27.7	8.9	2.46	0.32	69 18	HARD	02--08--17--73--01	
MTS0532	60.1	12.8	0.7	30.3	10.6	2.43	0.35	61 16	HARD	04--15--28--53--01	
MTS0713	60.4	12.5	0.8	29.4	9.9	2.57	0.35	76 17	HARD	02--04--11--83--01	
MTS0721	59.5	10.8	0.5	25.8	7.8	2.47	0.33	78 19	HARD	02--04--07--87--01	

2010 NRPN Intraregional Production Zone

Northern Plains

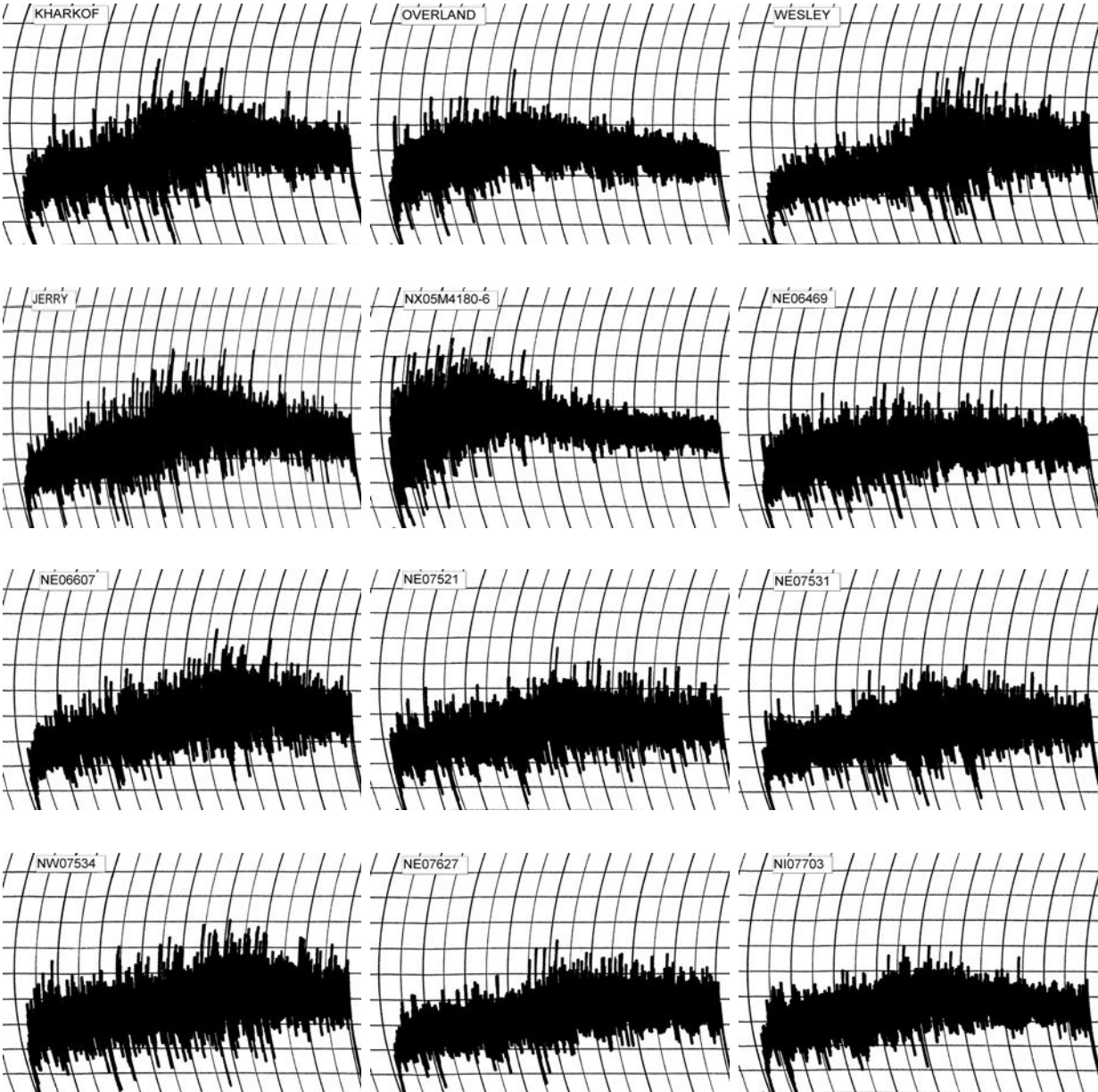
LINE	Wheat		Flour			Noodle Color					
	Protein	Milling Yield	Ash	Protein	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
	(%)	(%)	(%)	(%)							
Kharkof	14.1	63.4	0.39	12.4	0.513	82.16	-2.21	22.71	-12.23	1.17	2.60
Overland	11.5	70.6	0.41	10.3	0.520	80.03	-1.94	23.46	-8.51	0.85	2.16
Wesley	12.4	71.4	0.39	11.5	0.628	82.21	-1.92	20.63	-11.36	1.04	3.63
Jerry	13.5	68.3	0.37	12.6	0.591	81.87	-2.41	25.20	-11.70	1.36	1.87
NX05M4180-6	11.7	56.3	0.41	10.6	0.542	85.76	-3.78	24.00	-12.50	1.68	6.26
NE06469	11.7	70.5	0.39	10.4	0.673	81.69	-2.54	23.50	-12.58	1.79	3.79
NE06607	12.5	71.9	0.35	11.6	0.605	81.96	-2.41	22.84	-12.27	1.62	1.99
NE07521	11.9	68.8	0.40	11.0	0.509	81.13	-2.06	23.87	-10.96	1.30	1.99
NE07531	11.4	70.5	0.36	10.3	0.564	82.05	-2.48	24.60	-9.96	1.39	1.71
NW07534	12.6	68.9	0.38	11.2	0.676	82.52	-2.24	22.97	-10.51	1.05	2.96
NE07627	11.9	70.3	0.39	10.8	0.590	81.62	-2.00	23.06	-12.12	1.29	3.98
NI07703	11.8	69.7	0.38	11.0	0.634	82.17	-2.10	23.32	-11.37	0.95	4.39
BC01007-7	11.9	70.1	0.43	10.8	0.692	81.56	-2.49	27.02	-11.35	1.26	1.05
00X0100-51	11.9	69.4	0.37	10.7	0.490	80.97	-2.02	23.39	-10.71	1.01	3.32
HV9W04-1594R	11.2	67.7	0.45	10.0	0.373	82.62	-2.28	23.60	-11.90	1.37	4.65
HV9W05-1125R	12.3	69.4	0.43	11.3	0.539	82.83	-2.10	21.21	-12.32	0.82	6.14
CA9W06-788	12.8	67.9	0.41	11.8	0.551	82.73	-1.90	21.94	-11.69	0.69	4.66
CA9W07-817	12.6	66.9	0.40	11.8	0.548	82.35	-2.48	24.25	-10.27	0.98	3.22
CA9W08-856	12.2	67.6	0.36	11.4	0.510	83.58	-2.49	22.72	-12.54	1.26	3.75
BZ9W05-2039	12.6	68.5	0.37	11.8	0.594	82.89	-1.87	21.70	-12.02	1.28	2.83
BZ9W05-2043	12.4	72.3	0.39	11.8	0.664	81.26	-2.00	23.83	-12.50	1.23	1.55
SD05085-1	11.9	71.7	0.40	10.9	0.441	82.49	-2.58	24.42	-10.58	1.16	1.60
SD05118-1	12.3	70.5	0.38	11.3	0.544	81.91	-2.79	24.65	-9.56	1.10	1.18
SD05W030	11.8	68.7	0.38	10.9	0.337	82.61	-2.73	25.54	-8.74	0.75	3.50
SD06069	12.9	68.1	0.36	12.0	0.603	82.65	-2.11	21.90	-11.12	1.01	1.40
SD06158	12.4	68.1	0.36	11.8	0.611	83.25	-1.64	17.91	-12.38	0.81	4.75
SD07056	11.0	70.3	0.40	10.0	0.478	82.01	-1.85	21.98	-8.57	0.35	2.50
SD07126	12.8	69.2	0.36	11.7	0.678	82.04	-2.22	23.82	-11.23	1.36	1.41
SD07165	11.8	68.8	0.38	10.9	0.578	83.21	-2.24	22.04	-11.23	0.98	4.17
SD07184	12.9	69.1	0.37	12.0	0.642	81.05	-2.38	23.52	-11.13	1.75	2.11
SD07W053	13.5	66.5	0.42	12.7	0.599	80.36	-2.52	27.66	-11.43	1.23	1.39
MTS0532	13.2	70.1	0.36	12.3	0.563	82.43	-2.68	25.31	-10.50	1.23	1.68
MTS0713	12.3	66.1	0.44	11.4	0.643	80.64	-1.88	24.53	-10.23	0.73	2.55
MTS0721	12.7	68.7	0.41	11.5	0.687	80.95	-2.31	24.09	-11.38	1.23	0.72

2010 NRPN Intraregional Production Zone

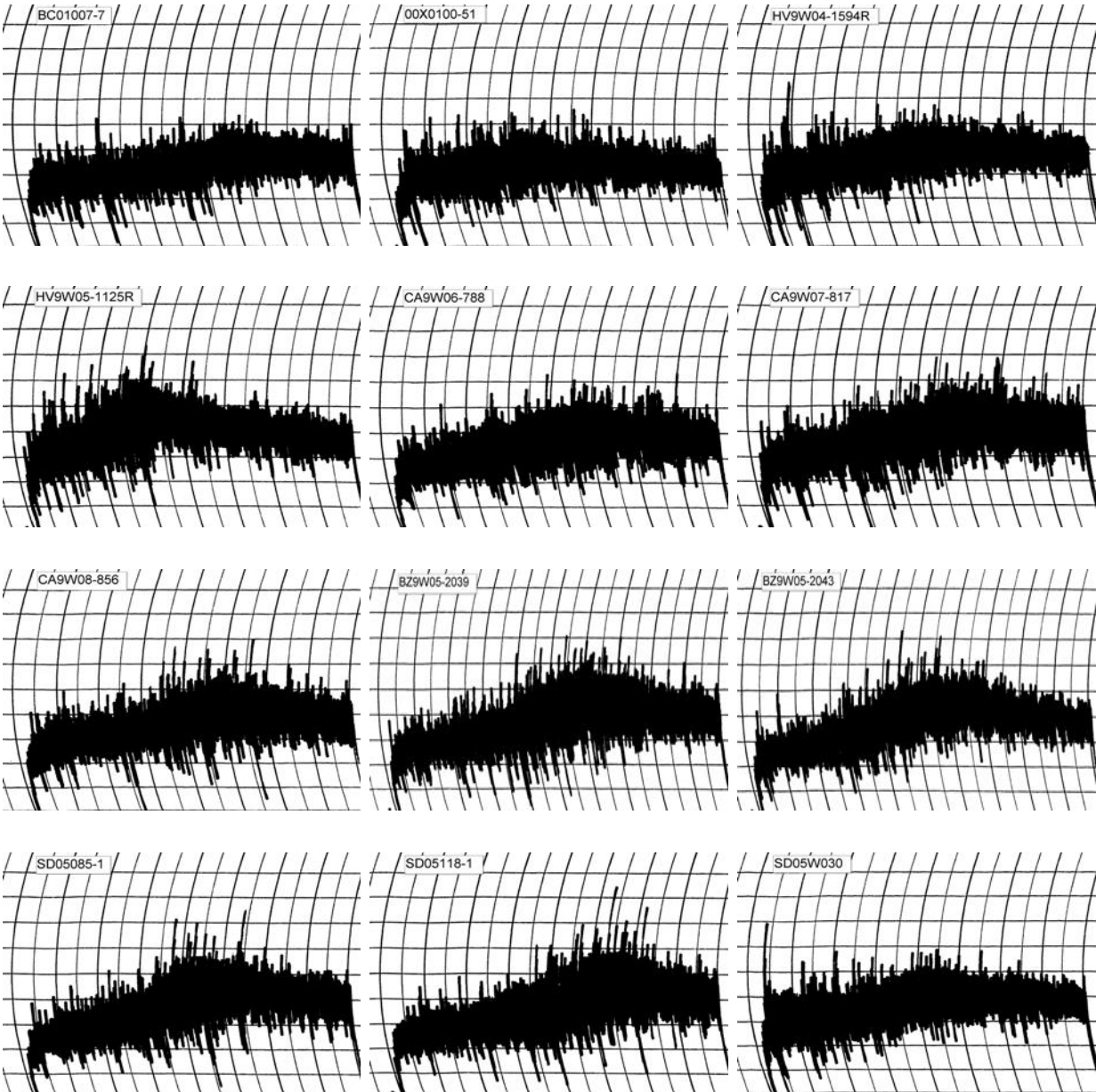
Northern Plains

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	12.4	63.6	4.50	4.50	4
Overland	10.3	60.1	3.38	2.68	1
Wesley	11.5	62.6	5.00	4.71	4
Jerry	12.6	63.9	5.38	5.38	4
NX05M4180-6	10.6	60.7	2.00	1.68	2
NE06469	10.4	60.4	3.75	3.05	3
NE06607	11.6	62.7	5.38	5.10	4
NE07521	11.0	60.7	4.25	3.73	2
NE07531	10.3	60.2	4.50	3.61	3
NW07534	11.2	63.1	5.50	4.98	5
NE07627	10.8	61.0	4.88	4.19	4
NI07703	11.0	60.7	4.00	3.50	2
BC01007-7	10.8	59.9	5.13	4.38	2
00X0100-51	10.7	60.7	3.38	2.85	2
HV9W04-1594R	10.0	59.7	4.13	3.15	2
HV9W05-1125R	11.3	61.8	3.00	2.75	2
CA9W06-788	11.8	62.6	4.88	4.76	3
CA9W07-817	11.8	62.6	5.25	5.15	5
CA9W08-856	11.4	63.0	5.13	4.78	4
BZ9W05-2039	11.8	63.2	6.13	6.01	4
BZ9W05-2043	11.8	61.6	5.50	5.38	2
SD05085-1	10.9	61.1	4.50	3.89	3
SD05118-1	11.3	63.3	5.63	5.17	5
SD05W030	10.9	61.1	4.38	3.79	2
SD06069	12.0	63.4	6.75	6.72	4
SD06158	11.8	62.1	7.13	6.96	4
SD07056	10.0	59.7	3.13	2.40	2
SD07126	11.7	62.4	4.75	4.57	4
SD07165	10.9	61.1	6.50	5.65	5
SD07184	12.0	62.8	4.38	4.36	4
SD07W053	12.7	60.1	4.00	4.00	2
MTS0532	12.3	61.9	6.00	6.00	3
MTS0713	11.4	61.0	6.00	5.57	4
MTS0721	11.5	61.5	4.50	4.22	3

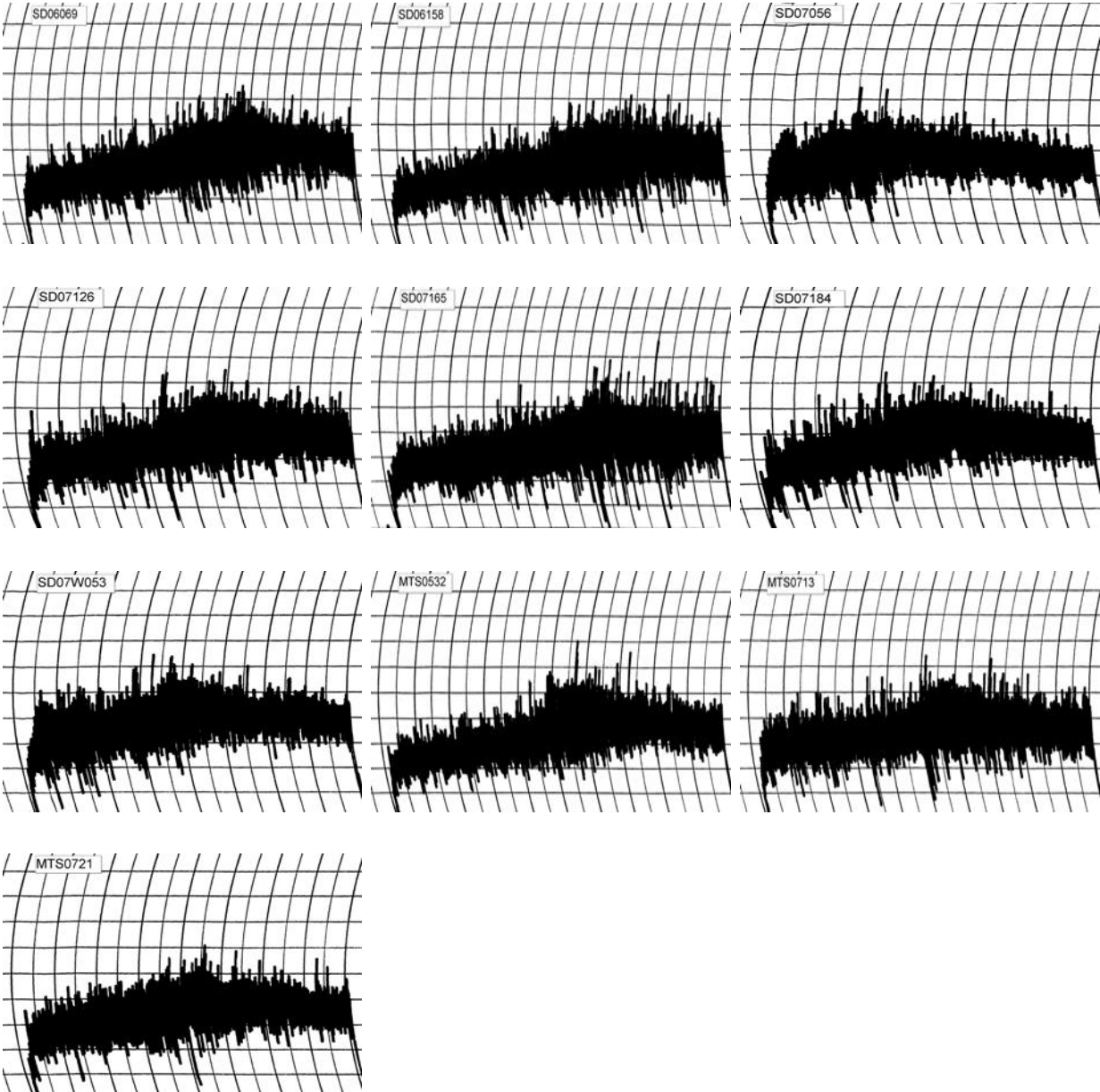
2010 NRPN Intraregional Production Zone Northern Plains



2010 NRPN Intraregional Production Zone Northern Plains



2010 NRPN Intraregional Production Zone Northern Plains



2010 NRPN Intraregional Production Zone

Northern Plains

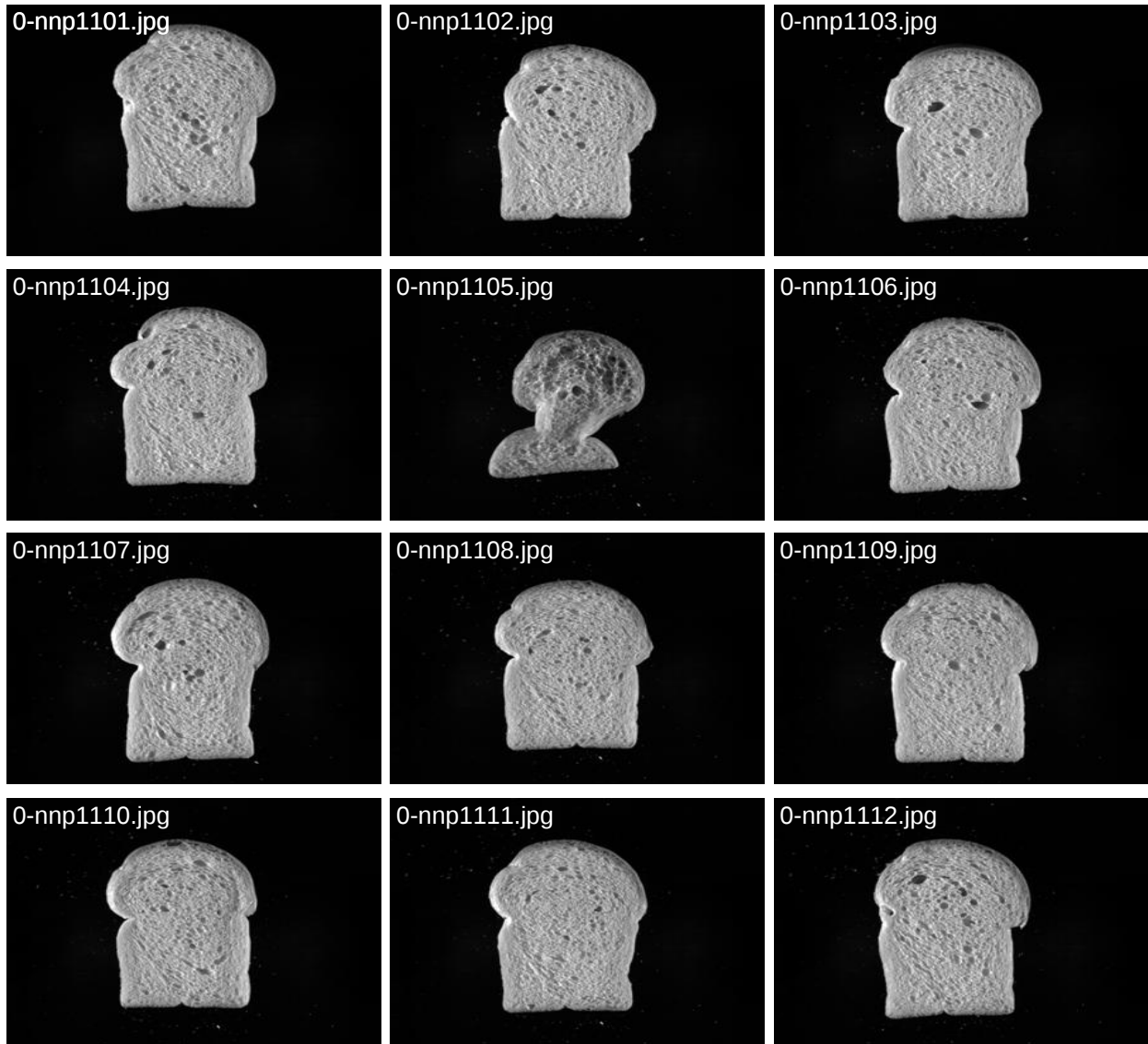
Line	RVA							
	Stirring Number	Peak Viscosity	Trough Viscosity	Breakdown	Final Viscosity	Set back	Peak Time	Pasting Temp
	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(min)	(Deg. C)
Kharkof	156.58	227.58	158.92	68.67	270.92	112.00	6.40	87.30
Overland	147.75	218.75	155.17	63.58	268.08	112.92	6.27	86.45
Wesley	138.17	221.25	156.08	65.17	272.92	116.83	6.27	86.40
Jerry	151.75	221.08	170.83	50.25	292.00	121.17	6.40	86.40
NX05M4180-6	79.25	109.33	62.83	46.50	101.08	38.25	4.20	69.45
NE06469	160.42	239.83	172.08	67.75	288.67	116.58	6.40	86.40
NE06607	139.92	263.92	167.83	96.08	261.25	93.42	6.47	86.55
NE07521	143.92	229.83	164.83	65.00	286.25	121.42	6.33	86.45
NE07531	149.58	262.58	188.83	73.75	312.25	123.42	6.40	86.60
NW07534	153.83	235.67	172.75	62.92	284.75	112.00	6.47	86.50
NE07627	134.33	225.67	158.92	66.75	274.92	116.00	6.33	86.45
NI07703	134.92	245.42	161.08	84.33	274.33	113.25	6.33	84.80
BC01007-7	120.42	203.75	138.42	65.33	249.08	110.67	6.20	84.90
00X0100-51	140.83	221.17	158.92	62.25	280.50	121.58	6.27	86.55
HV9W04-1594R	154.83	214.50	143.92	70.58	249.92	106.00	6.33	86.50
HV9W05-1125R	149.00	239.00	175.25	63.75	299.00	123.75	6.40	86.50
CA9W06-788	159.58	244.42	186.33	58.08	316.67	130.33	6.47	86.60
CA9W07-817	154.75	209.08	161.00	48.08	277.92	116.92	6.33	87.50
CA9W08-856	170.50	235.25	188.67	46.58	314.08	125.42	6.47	86.55
BZ9W05-2039	137.25	215.50	150.17	65.33	269.17	119.00	6.20	85.55
BZ9W05-2043	138.58	226.50	160.42	66.08	283.08	122.67	6.33	86.45
SD05085-1	138.17	223.92	157.42	66.50	280.75	123.33	6.27	86.50
SD05118-1	157.50	246.83	176.25	70.58	304.92	128.67	6.33	86.40
SD05W030	164.50	226.92	168.50	58.42	289.50	121.00	6.40	86.40
SD06069	163.25	220.00	173.92	46.08	294.00	120.08	6.47	86.55
SD06158	157.92	223.83	177.33	46.50	298.08	120.75	6.47	87.35
SD07056	150.50	225.83	162.75	63.08	282.25	119.50	6.33	86.50
SD07126	161.67	263.00	187.92	75.08	305.08	117.17	6.47	86.55
SD07165	152.83	230.50	169.92	60.58	297.08	127.17	6.33	86.45
SD07184	152.42	236.17	169.33	66.83	286.75	117.42	6.40	86.40
SD07W053	162.25	243.25	177.33	65.92	297.58	120.25	6.47	86.40
MTS0532	145.00	239.50	165.50	74.00	289.25	123.75	6.33	84.90
MTS0713	141.75	222.67	152.42	70.25	266.58	114.17	6.40	88.20
MTS0721	137.75	241.50	168.75	72.75	290.92	122.17	6.40	86.50

2010 NRPN Intraregional Production Zone

Northern Plains

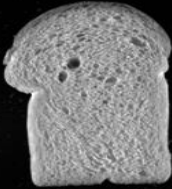
Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	Loaf Volume	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	12.4	63.7	5.75	5.75	172.5	7.6	3.0	925	6.1	67
Overland	10.3	59.3	4.00	3.17	168.2	7.1	3.0	830	5.7	72
Wesley	11.5	62.3	7.50	7.07	171.0	7.1	4.0	880	5.9	68
Jerry	12.6	63.9	7.25	7.25	172.3	7.3	3.0	875	5.9	60
NX05M4180-6	10.6	60.9	3.50	2.93	170.3	7.1	0.0	910	6.1	79
NE06469	10.4	60.0	5.63	4.57	168.9	7.0	3.0	820	5.5	69
NE06607	11.6	62.6	7.00	6.63	171.2	7.1	3.5	930	6.2	73
NE07521	11.0	61.3	6.50	5.70	169.5	7.1	2.5	800	5.4	62
NE07531	10.3	61.6	7.00	5.61	170.1	7.3	3.5	900	6.1	81
NW07534	11.2	63.6	7.75	7.02	172.1	7.0	2.0	795	5.3	60
NE07627	10.8	61.2	6.25	5.37	169.7	7.0	2.5	810	5.5	65
NI07703	11.0	60.2	4.75	4.16	169.3	7.1	1.8	855	5.8	69
BC01007-7	10.8	61.2	6.13	5.23	169.8	7.2	2.5	820	5.5	66
00X0100-51	10.7	61.4	5.50	4.64	170.3	7.0	2.5	805	5.4	65
HV9W04-1594R	10.0	60.8	5.88	4.48	169.4	6.9	1.5	765	5.1	65
HV9W05-1125R	11.3	62.3	5.00	4.59	171.5	7.2	2.0	870	5.8	68
CA9W06-788	11.8	62.9	7.00	6.83	172.1	7.1	2.0	860	5.7	64
CA9W07-817	11.8	62.9	6.75	6.62	171.5	7.3	2.0	850	5.6	62
CA9W08-856	11.4	63.4	6.25	5.82	172.0	7.0	3.0	775	5.1	56
BZ9W05-2039	11.8	63.2	9.00	8.83	172.0	7.2	4.5	885	5.9	66
BZ9W05-2043	11.8	62.3	7.13	6.97	171.2	7.6	3.5	910	6.1	69
SD05085-1	10.9	63.4	6.63	5.74	170.0	7.2	3.0	880	5.9	73
SD05118-1	11.3	63.6	7.75	7.12	172.3	7.3	3.0	880	5.9	69
SD05W030	10.9	61.5	5.63	4.88	170.6	7.0	3.5	790	5.2	62
SD06069	12.0	63.5	8.63	8.59	171.5	7.3	4.0	935	6.3	71
SD06158	11.8	63.4	9.50	9.28	172.0	7.3	4.5	895	6.0	68
SD07056	10.0	61.3	4.50	3.44	170.5	6.9	3.5	790	5.2	68
SD07126	11.7	62.4	6.25	6.01	171.1	7.1	2.0	900	6.1	69
SD07165	10.9	61.9	11.00	9.55	169.8	7.1	3.0	845	5.7	68
SD07184	12.0	62.3	5.75	5.72	170.7	7.2	2.5	875	5.9	64
SD07W053	12.7	60.0	5.75	5.75	168.4	7.0	1.5	875	5.9	59
MTS0532	12.3	62.7	8.00	8.00	170.8	7.2	2.5	900	6.1	65
MTS0713	11.4	61.8	6.75	6.27	170.3	7.5	1.0	940	6.4	76
MTS0721	11.5	61.3	5.50	5.16	169.8	7.0	2.5	795	5.3	58

2010 NRPN Intraregional Production Zone Northern Plains

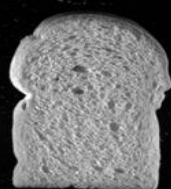


2010 NRPN Intraregional Production Zone Northern Plains

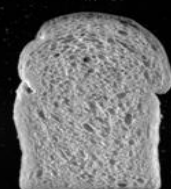
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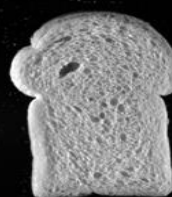
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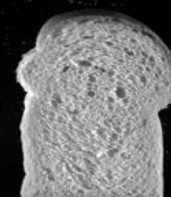
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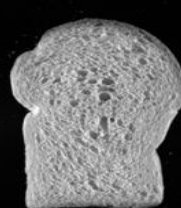
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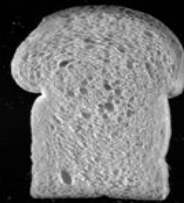


2010 NRPN Intraregional Production Zone Northern Plains

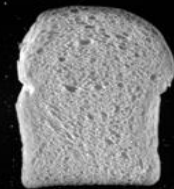
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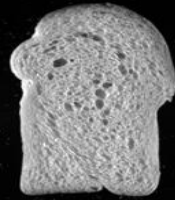
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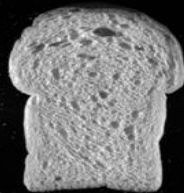
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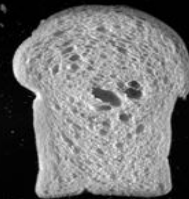
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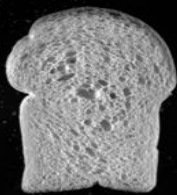
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Southern Regional Performance Nursery

2010 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	Fuller	Fuller	check
5	KS07HW52-5	KS025580(TREGO/CO960293)/KS02HW25(TGO/JGR 8W)	KSU-HAYS
6	KS08HW176-4	TREGO/JGR 8W	KSU-HAYS
7	OK05526	KS94U275/OK94P549 F4:12	OSU
8	OK05212	OK95616-1/Hickok/Betty F4:12	OSU
9	OK05204	SWM866442/OK95548 F4:12	OSU
10	OK05511	TAM 110/2174 F4:12	OSU
11	OK07231	OK92P577-(RMH 3099)/OK93P656-(RMH 3299) F4:10	OSU
12	T150-1	T81/T201	Trio
13	T166	T81/KS93U206	Trio
14	T167	T136/T151	Trio
15	T168	T81/T137	Trio
16	NE06545	KS92-946-B-15-1=(ABI86*3414/JAG//K92)/ALLIANCE	UNL
17	NE07444	KS96HW10-3=(KS91HW29// RIO BLANCO/KS91H184)/WAHOO/NE99585	UNL
18	NI07703	R-148 (G97343) =(919021/B725//K92)/NI00436 =(WI89-273-13/NE93427 (=	UNL
19	NI08708	CO980829 (=Yuma/T-57//CO850034/3/4*Yuma/4/NEWS1)/Wesley	UNL
20	BC01007-7	W99-331/97x0906-8	AGRIPRO NORTH
21	BC01131-24	W99-429-1/W98-422	AGRIPRO NORTH
22	BC01139-1	W99-188\$/BC950285G-1-2	AGRIPRO NORTH
23	00X0100-51	W95-301/W98-151	AGRIPRO NORTH
24	HV9W06-1046	M97-1171/G980039//G982238	WestBred Haven
25	HV9W06-509	G982231/G982159//KS920709W	WestBred Haven
26	HV9W06-262	TX98U8134/3/KARL 92*2/RAVI-36	WestBred Haven
27	HV9W04-1594R	KS89180B-2-1-1/CMBW91M02959T//JGR	WestBred Haven
28	CO04393	Stanton/CO950043	CSU
29	CO04499	Above/Stanton	CSU
30	CO050270	Hatcher/NW97S295	CSU
31	CO050303-2	CO980829/TAM 111	CSU
32	CO050322	CO980829/TAM 111	CSU
33	CO050337-2	CO980829/TAM 111	CSU
34	KS010990M~8	Trego/Ventnor//KS940786-6-4	KSU-Manhattan
35	KS06O3A~50-3	OVERLEY*3/AMADINA	KSU-Manhattan
36	KS06O3A~58-2	OVERLEY*3/AMADINA	KSU-Manhattan
37	KS011327M~2	KS940748-2-4/TX97V4311//Overlay	KSU-Manhattan
38	OK07209	OK93P656-(RMH 3299)/OK99621 F4:10	OSU
39	TX05A001822	2145/X940786-6-7	TAMU
40	TX06A001263	TX97V3006/TX98V6239	TAMU
41	TX06A001132	HBG0358/4/T107//TX78V3620/Ctk78/3/TX87V1233	TAMU
42	TX06A001281	TX98VR8422/U3704A-7-7	TAMU
43	TX06A001386	TX99A6030/CUSTER	TAMU
44	TX05V7259	T107//TX78V3620/Ctk78/3/TX87V1233/4/Arap//TX86V1540/T200	TAMU
45	TX05V7269	HBG0358/4/T107//TX78V3620/Ctk78/3/TX87V1233	TAMU
46	TX05A001188	T107//TX98V3620/Ctk78/3/TX87V1233/4/N87V106//TX86V1540/T200	TAMU
47	BC01138-5	W99-188\$/BC950814-1-1	AGRIPRO South

Entry	Selection No.	Pedigree	Source
48	AP06T3621	X920232-5/Karl 92//X920750A-13-1	AGRIPRO South



Hard Winter Wheat Quality Report 2010 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	49.3	Very Poor	80.9	63.5	Very Good	100.0		10,20,
Scout66	58.7	Very Good	96.4	43.5	Average	68.6		20,
TAM 107	49.3	Very Poor	80.9	60.7	Very Good	95.6	1AL	1,
Fuller	51.1	Very Poor	83.8	34.7	Very Poor	54.7		8,14,15,
KS07HW52-5	59.1	Very Good	97.0	45.4	Good	71.5		5,14,15,
KS08HW176-4	57.5	Good	94.3	32.3	Very Poor	50.9		5,18,19,
OK05526	59.6	Very Good	97.8	47.9	Good	75.4		15,
Garrison	56.1	Average	92.1	42.1	Average	66.3		18,
OK05204	55.2	Average	90.6	54.4	Very Good	85.7		13,
OK05511	58.5	Good	96.0	34.0	Very Poor	53.5		15,
OK07231	58.7	Very Good	96.3	45.5	Good	71.7		14,
T150-1	54.2	Poor	88.9	42.5	Average	67.0		1,9,14,15,
T166	56.1	Average	92.1	53.0	Good	83.5	1AL	
T167	50.6	Very Poor	83.1	45.1	Average	71.0		1,3,5,14,15,
T168	55.6	Average	91.3	56.3	Very Good	88.7		
NE06545	50.0	Very Poor	82.0	29.9	Very Poor	47.1		1,11,15,17,
NE07444	58.3	Good	95.6	29.0	Very Poor	45.6		14,15,
NI07703	58.5	Very Good	96.0	43.1	Average	67.9		15,
NI08708	52.9	Poor	86.8	52.7	Good	82.9		15,
Wolf	56.2	Good	92.2	50.1	Good	78.9		13,14,15,
BC01131-24	54.7	Poor	89.7	36.0	Very Poor	56.7		15,
BC01139-1	52.5	Very Poor	86.1	50.8	Good	80.0		8,
SY Gold	53.3	Poor	87.5	39.9	Poor	62.9		14,18,19,
HV9W06-1046	56.4	Good	92.6	59.4	Very Good	93.6		18,
HV9W06-509	56.1	Average	92.0	54.6	Very Good	86.0		
HV9W06-262	54.7	Average	89.8	45.1	Average	71.0		2,4,14,15,
HV9W04-1594R	49.9	Very Poor	81.9	47.3	Good	74.5	1BL	1,2,4,9,
CO04393	59.9	Very Good	98.3	48.6	Good	76.5		14,15,
CO04499	57.6	Good	94.5	32.6	Very Poor	51.4		14,15,
CO050270	54.4	Poor	89.2	38.5	Poor	60.6		18,

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 2010 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
CO050303-2	50.0	Very Poor	82.1	43.6	Average	68.6		16,18,19,20,
CO050322	52.8	Poor	86.6	48.8	Good	76.8		18,
CO050337-2	50.8	Very Poor	83.4	53.9	Very Good	85.0		
KS010990M-8	55.0	Average	90.3	36.6	Poor	57.6		18,
KS06O3A~50-3	52.6	Poor	86.3	45.5	Average	71.7		3,12,16,17,
KS06O3A~58-2	50.9	Very Poor	83.5	32.9	Very Poor	51.8		8,10,15,16,20,
KS011327M-2	54.7	Poor	89.7	34.6	Very Poor	54.5		15,16,
OK07209	59.5	Very Good	97.6	37.7	Poor	59.4		
TX05A001822	56.4	Good	92.6	34.0	Very Poor	53.6		15,
TX06A001263	55.6	Average	91.2	42.0	Poor	66.2	1AL	
TX06A001132	59.6	Very Good	97.7	38.4	Poor	60.5		16,
TX06A001281	58.3	Good	95.6	58.7	Very Good	92.5		
TX06A001386	56.6	Good	92.9	41.8	Poor	65.8		21,
TX05V7259	57.0	Good	93.6	42.9	Average	67.5		14,15,
TX05V7269	54.1	Poor	88.8	40.0	Poor	62.9		
TX05A001188	60.9	Very Good	100.0	54.7	Very Good	86.2		
CJ	55.0	Average	90.2	37.5	Poor	59.1		12,17,
AP06T3621	54.8	Poor	89.9	40.5	Poor	63.8		12,13,14,15,16,

2010 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	58.4	12.8	0.6	28.5	7.1	2.56	0.29	42 22	MIXED	34--29--18--19--03	
Scout 66	58.7	12.5	0.4	31.9	9.0	2.65	0.34	53 16	MIXED	11--26--29--34--03	
TAM-107	54.8	12.5	0.4	28.9	8.5	2.54	0.35	55 15	HARD	05--25--31--39--01	
Fuller	57.7	12.6	0.4	29.6	8.6	2.66	0.31	54 16	HARD	07--23--34--36--02	
KS07HW52-5	59.8	12.7	0.3	33.1	9.8	2.72	0.38	65 17	HARD	03--10--21--66--01	
KS08HW176-4	58.4	12.7	0.4	30.7	9.2	2.62	0.38	66 16	HARD	02--09--23--66--01	
OK05526	58.9	12.6	0.4	33.0	9.2	2.76	0.32	50 15	HARD	10--32--32--26--02	
OK05212	58.8	12.5	0.4	30.0	8.7	2.53	0.36	53 14	HARD	06--28--34--32--02	
OK05204	58.2	12.5	0.3	33.3	9.4	2.72	0.35	54 17	HARD	09--24--30--37--02	
OK05511	59.0	12.6	0.4	34.6	9.3	2.78	0.37	54 15	HARD	06--25--33--36--02	
OK07231	57.8	12.7	0.3	32.4	8.2	2.73	0.31	66 17	HARD	04--08--20--68--01	
T150-1	55.5	12.6	0.4	29.8	8.5	2.58	0.34	64 14	HARD	01--07--26--66--01	
T166	57.8	12.4	0.3	30.3	9.1	2.59	0.35	61 16	HARD	04--12--31--53--01	
T167	56.1	12.6	0.4	34.4	10.3	2.66	0.40	56 16	HARD	06--20--32--42--02	
T168	58.7	12.5	0.4	29.4	7.9	2.57	0.33	57 15	HARD	07--16--32--45--02	
NE06545	55.8	12.8	0.4	30.0	9.3	2.60	0.37	45 16	MIXED	22--33--27--18--03	
NE07444	57.8	12.6	0.4	31.1	8.2	2.64	0.31	54 15	HARD	07--23--34--36--02	
NI07703	58.1	12.8	0.4	33.5	8.8	2.71	0.34	54 15	HARD	08--23--34--35--02	
NI08708	56.2	12.4	0.4	30.1	8.9	2.61	0.34	55 18	MIXED	11--21--30--38--03	
BC01007-7	58.3	12.8	0.4	28.1	7.7	2.56	0.35	58 17	HARD	07--16--30--47--02	
BC01131-24	58.0	12.5	0.4	27.6	8.4	2.55	0.36	56 17	HARD	08--19--30--43--02	
BC01139-1	57.0	12.7	0.4	31.3	8.9	2.70	0.34	55 15	HARD	06--23--31--40--02	
00X0100-51	57.3	12.5	0.4	28.2	8.2	2.55	0.33	60 17	HARD	05--15--30--50--01	
HV9W06-1046	58.8	12.2	0.4	27.8	7.6	2.61	0.30	63 16	HARD	03--13--25--59--01	
HV9W06-509	57.7	12.5	0.4	28.6	7.8	2.59	0.33	60 15	HARD	04--15--30--51--01	
HV9W06-262	57.5	12.3	0.4	25.6	7.5	2.42	0.32	60 17	HARD	05--16--26--53--01	
HV9W04-1594R	55.6	12.5	0.4	24.6	6.7	2.42	0.29	72 22	HARD	04--10--15--71--01	
CO04393	57.6	12.5	0.3	33.2	8.3	2.74	0.33	48 15	MIXED	16--31--31--22--03	
CO04499	58.0	12.4	0.4	33.0	9.5	2.67	0.38	51 15	MIXED	11--28--32--29--03	
CO050270	57.9	12.7	0.3	32.7	9.5	2.65	0.34	50 15	MIXED	14--28--33--25--03	
CO050303-2	56.6	12.7	0.3	29.0	8.6	2.51	0.33	49 16	MIXED	16--28--29--27--03	
CO050322	56.7	12.7	0.3	29.9	8.8	2.59	0.32	52 15	HARD	09--25--34--32--02	
CO050337-2	57.6	12.6	0.3	29.1	9.2	2.54	0.36	53 16	MIXED	11--22--30--37--03	
KS010990M~8	57.1	12.5	0.4	32.3	9.6	2.69	0.37	56 16	HARD	05--18--37--40--01	
KS06O3A~50-3	57.8	12.6	0.3	33.1	10.2	2.69	0.37	56 16	HARD	06--23--30--41--02	
KS06O3A~58-2	58.7	12.4	0.4	33.3	9.7	2.78	0.38	66 20	HARD	07--10--16--67--02	
KS011327M~2	57.7	12.5	0.3	31.0	9.3	2.69	0.36	57 18	HARD	07--21--32--40--02	
OK07209	58.6	12.2	0.3	32.0	8.8	2.74	0.34	46 15	MIXED	21--29--29--21--03	
TX05A001822	58.8	12.3	0.4	30.3	8.2	2.64	0.33	55 19	HARD	10--22--28--40--02	
TX06A001263	59.1	12.6	0.4	31.5	8.5	2.72	0.35	65 19	HARD	04--08--22--66--01	
TX06A001132	59.5	12.4	0.4	36.3	9.3	2.80	0.36	52 16	HARD	10--26--34--30--02	
TX06A001281	58.2	12.3	0.3	32.6	8.5	2.70	0.32	56 15	HARD	06--16--35--43--02	
TX06A001386	59.0	12.2	0.4	34.0	8.9	2.75	0.35	63 18	HARD	03--16--21--60--01	
TX05V7259	58.6	12.3	0.3	32.3	7.3	2.72	0.31	59 17	HARD	06--16--27--51--02	
TX05V7269	58.2	12.4	0.4	31.2	8.1	2.65	0.32	54 16	HARD	09--23--36--32--02	

LINE	Wt/Bu (lb)	SKCS Average Kernel						Hardness			
		Moisture		Weight		Diameter		SKCS		Class	Distribution
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)	(sd)			
TX05A001188	58.9	12.3	0.4	31.9	8.6	2.69	0.30	57	14	HARD	05--17--37--41--01
BC01138-5	57.5	12.3	0.4	28.9	7.7	2.61	0.34	61	17	HARD	06--15--23--56--02
AP06T3621	56.7	12.4	0.3	31.9	9.2	2.62	0.36	53	16	HARD	07--28--30--35--02

2010 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	13.9	69.7	0.44	12.7	0.650	80.18	-1.50	21.68	-12.65	2.10	2.30
Scout 66	13.4	72.1	0.39	12.4	0.690	80.05	-1.05	21.39	-11.75	1.60	1.08
TAM-107	13.0	68.7	0.41	11.7	0.790	80.34	-1.27	23.34	-11.93	1.60	1.69
Fuller	12.6	67.1	0.35	11.4	0.848	81.08	-1.21	20.81	-14.05	1.84	3.18
KS07HW52-5	12.4	71.8	0.43	11.3	0.705	81.79	-1.43	21.59	-13.58	2.17	2.37
KS08HW176-4	12.0	71.7	0.44	10.8	0.797	81.78	-1.15	19.43	-14.02	2.22	4.00
OK05526	12.1	71.3	0.36	10.9	0.782	82.18	-1.12	19.31	-12.36	1.43	4.61
OK05212	12.0	70.2	0.39	11.1	0.785	81.93	-1.07	19.89	-11.75	1.52	3.34
OK05204	11.6	70.7	0.42	10.5	0.758	82.62	-1.21	18.98	-12.85	2.01	3.73
OK05511	12.1	70.9	0.41	11.0	0.806	81.75	-1.11	19.57	-13.01	1.56	4.22
OK07231	11.9	70.6	0.42	10.7	0.241	83.14	-1.10	19.49	-12.46	1.30	5.19
T150-1	12.1	70.6	0.47	11.4	0.752	82.09	-0.79	17.79	-14.76	2.00	4.66
T166	12.0	71.2	0.43	11.4	0.778	80.93	-1.07	20.22	-13.54	1.73	4.94
T167	12.2	69.4	0.44	11.1	0.705	81.16	-1.13	21.01	-11.93	1.91	4.01
T168	13.0	69.3	0.39	11.7	0.762	80.36	-1.05	21.09	-12.90	1.73	2.55
NE06545	11.3	69.8	0.38	10.5	0.660	83.29	-1.43	18.86	-14.26	2.13	5.29
NE07444	11.6	71.4	0.41	10.5	0.742	81.99	-1.53	21.13	-12.14	2.26	1.68
NI07703	12.1	71.6	0.43	11.2	0.666	81.44	-1.25	20.99	-11.49	1.25	4.28
NI08708	12.4	70.4	0.37	11.3	0.896	81.13	-1.15	19.55	-12.55	1.10	4.82
BC01007-7	11.9	71.1	0.41	10.9	0.852	81.76	-1.67	21.94	-12.04	1.07	3.72
BC01131-24	12.6	70.9	0.39	11.5	0.702	81.49	-1.08	20.43	-12.18	0.85	5.37
BC01139-1	11.7	68.2	0.38	10.9	0.896	81.89	-1.25	20.72	-11.70	0.51	5.34
00X0100-51	11.8	69.7	0.40	10.5	0.625	82.73	-1.29	19.90	-10.83	0.67	4.96
HV9W06-1046	12.7	69.2	0.39	11.8	0.747	81.77	-1.23	19.86	-12.17	0.39	6.01
HV9W06-509	11.9	70.2	0.43	11.2	0.764	83.42	-1.50	19.39	-14.41	2.36	3.45
HV9W06-262	12.5	70.4	0.38	11.6	0.718	80.70	-1.33	21.08	-12.61	1.80	2.18
HV9W04-1594R	12.2	70.0	0.46	11.4	0.623	80.32	-1.19	21.71	-14.95	1.75	4.49
CO04393	12.5	72.5	0.41	11.7	0.781	81.03	-1.55	23.18	-12.94	1.39	2.97
CO04499	12.4	71.7	0.38	11.2	0.784	81.01	-1.60	22.88	-11.09	0.84	3.83
CO050270	12.4	70.0	0.40	11.2	0.643	82.08	-1.46	21.33	-12.52	1.86	1.59
CO050303-2	11.4	69.2	0.40	10.6	0.723	81.60	-1.90	23.31	-9.77	1.70	1.77
CO050322	11.8	69.4	0.38	10.9	0.742	82.34	-1.78	22.39	-11.58	1.93	2.43
CO050337-2	11.9	68.9	0.37	10.7	0.741	81.68	-1.88	23.51	-11.33	2.24	0.81
KS010990M-8	11.7	70.8	0.40	10.6	0.677	83.48	-1.68	20.46	-13.93	1.98	4.56
KS06O3A-50-3	12.3	69.6	0.42	11.4	0.743	81.75	-1.58	21.85	-12.19	1.49	3.70
KS06O3A-58-2	12.5	67.8	0.42	11.4	0.678	81.87	-1.25	21.73	-12.54	1.29	4.78
KS011327M-2	11.9	71.1	0.41	11.1	0.724	82.16	-1.53	21.12	-11.91	1.43	4.52
OK07209	11.8	72.1	0.37	10.9	0.702	81.71	-1.66	22.34	-9.78	1.09	2.96
TX05A001822	12.1	71.2	0.40	11.2	0.742	81.73	-1.44	22.25	-11.60	1.12	3.95
TX06A001263	12.5	69.8	0.43	11.6	0.773	82.43	-1.37	20.08	-11.76	0.72	5.58
TX06A001132	12.2	71.7	0.43	11.3	0.718	81.71	-1.17	20.74	-12.00	1.23	4.38
TX06A001281	12.6	70.7	0.42	11.9	0.828	80.73	-0.84	18.89	-12.32	0.66	6.80

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
	(%)	(%)	(%)	(%)							
TX06A001386	12.0	69.7	0.41	11.0	0.672	82.20	-1.17	19.87	-12.69	1.09	4.65
TX05V7259	12.5	69.0	0.39	11.2	0.850	81.59	-1.26	19.91	-11.62	1.25	4.52
TX05V7269	11.6	68.8	0.39	10.7	0.817	81.77	-1.25	20.11	-11.46	0.98	4.29
TX05A001188	12.8	71.2	0.38	11.6	0.715	82.26	-1.06	18.66	-12.79	1.42	5.47
BC01138-5	11.9	69.8	0.39	11.1	0.699	81.41	-1.45	22.66	-11.35	2.82	-0.19
AP06T3621	11.6	71.3	0.40	10.6	0.865	82.52	-1.52	20.35	-13.92	2.80	1.75

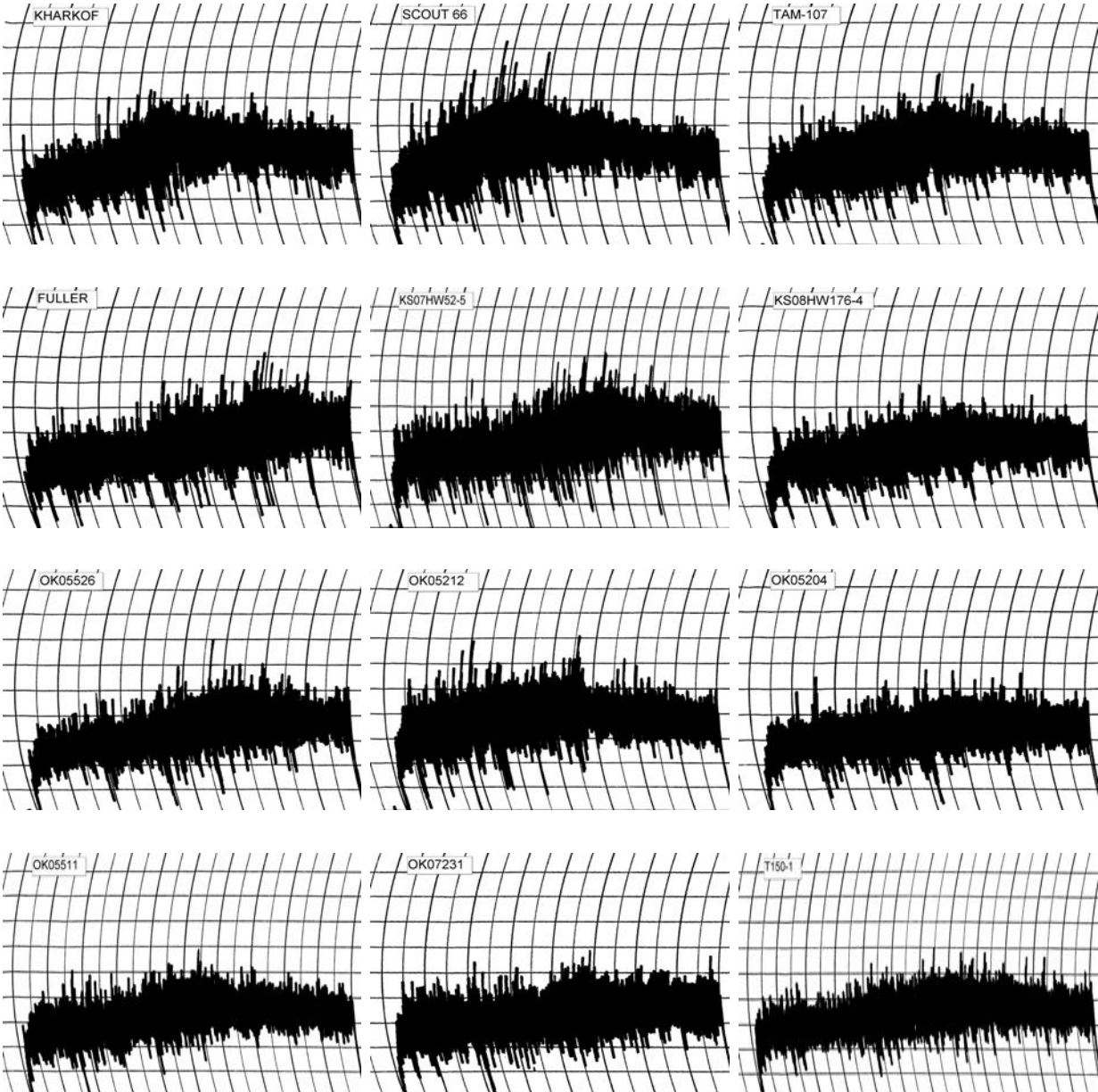
2010 SRPN Intraregional Production Zone

North Central Plains

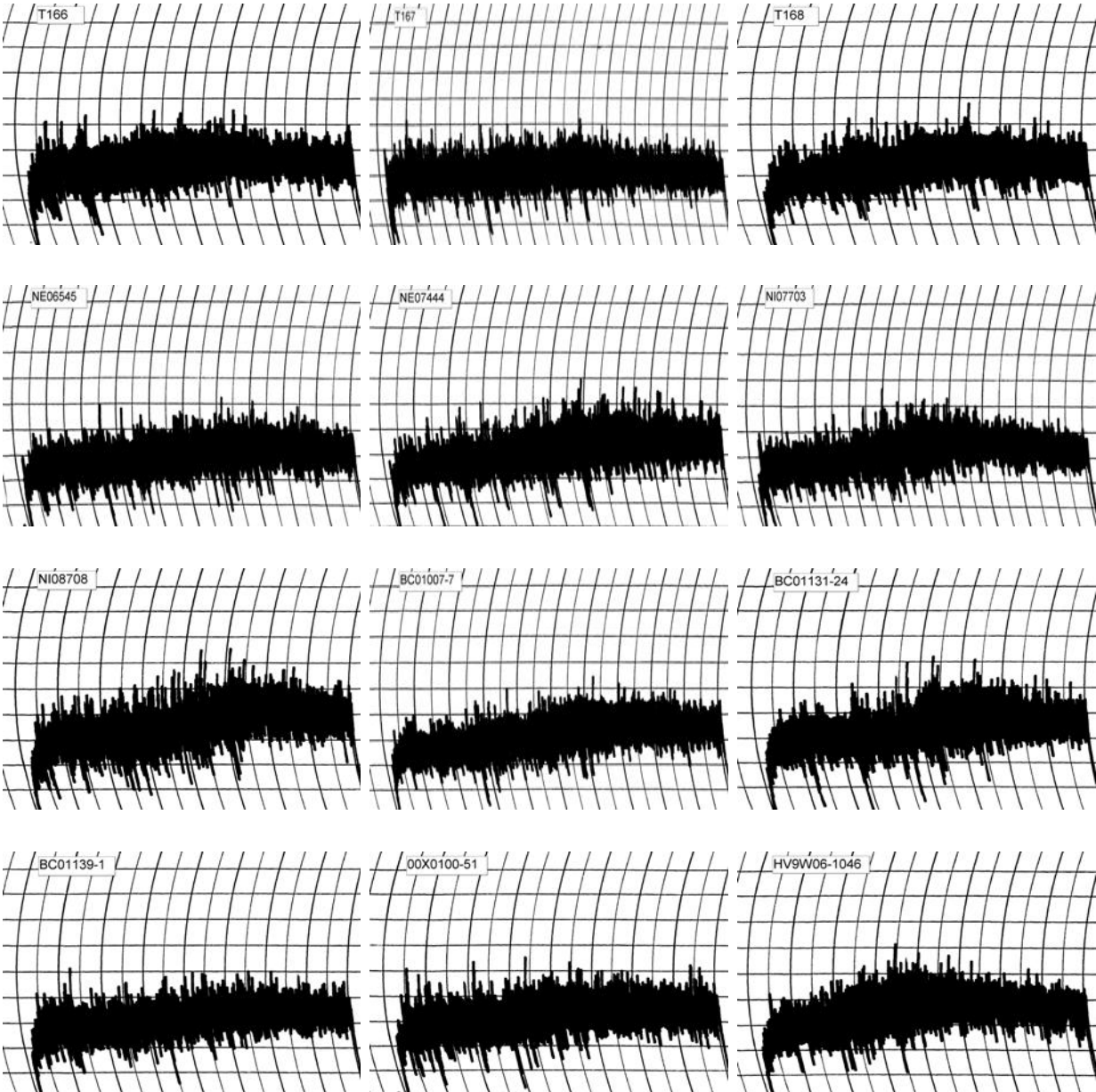
	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	12.7	64.0	3.63	3.63	4
Scout 66	12.4	64.6	3.50	3.50	3
TAM-107	11.7	62.4	4.50	4.31	4
Fuller	11.4	63.0	6.38	5.93	5
KS07HW52-5	11.3	61.7	6.63	6.05	5
KS08HW176-4	10.8	60.8	4.38	3.73	3
OK05526	10.9	62.1	5.50	4.78	3
OK05212	11.1	62.5	4.38	3.93	4
OK05204	10.5	59.5	4.88	4.00	3
OK05511	11.0	61.1	5.50	4.81	3
OK07231	10.7	60.9	4.88	4.14	4
T150-1	11.4	61.9	6.75	6.26	4
T166	11.4	60.8	4.38	4.05	4
T167	11.1	61.4	7.00	6.21	3
T168	11.7	62.3	4.25	4.08	4
NE06545	10.5	60.4	6.50	5.31	4
NE07444	10.5	60.4	6.63	5.45	5
NI07703	11.2	60.6	5.38	4.85	3
NI08708	11.3	60.8	5.38	4.94	4
BC01007-7	10.9	58.6	6.00	5.20	4
BC01131-24	11.5	61.6	5.38	5.08	4
BC01139-1	10.9	60.6	4.50	3.92	4
00X0100-51	10.5	60.5	4.63	3.80	4
HV9W06-1046	11.8	62.7	4.00	3.91	4
HV9W06-509	11.2	61.6	5.00	4.51	4
HV9W06-262	11.6	61.8	6.75	6.45	5
HV9W04-1594R	11.4	61.3	4.50	4.15	4
CO04393	11.7	61.9	6.38	6.14	4
CO04499	11.2	61.1	6.38	5.75	4
CO050270	11.2	61.1	3.75	3.40	3
CO050303-2	10.6	60.0	3.75	3.12	2
CO050322	10.9	60.5	5.00	4.32	4
CO050337-2	10.7	60.2	4.38	3.68	3
KS010990M~8	10.6	60.0	4.50	3.72	4
KS06O3A~50-3	11.4	60.4	5.00	4.65	2
KS06O3A~58-2	11.4	61.5	5.38	5.02	2
KS011327M~2	11.1	60.3	5.38	4.78	2
OK07209	10.9	60.1	4.50	3.91	4
TX05A001822	11.2	60.6	6.38	5.75	4
TX06A001263	11.6	61.9	5.00	4.79	4
TX06A001132	11.3	60.8	3.25	2.99	2
TX06A001281	11.9	62.2	3.50	3.44	4

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
TX06A001386	11.0	61.3	5.00	4.39	5
TX05V7259	11.2	61.7	6.50	5.88	4
TX05V7269	10.7	60.8	5.25	4.45	5
TX05A001188	11.6	62.3	4.38	4.19	5
BC01138-5	11.1	60.5	4.88	4.37	4
AP06T3621	10.6	59.2	8.13	6.80	2

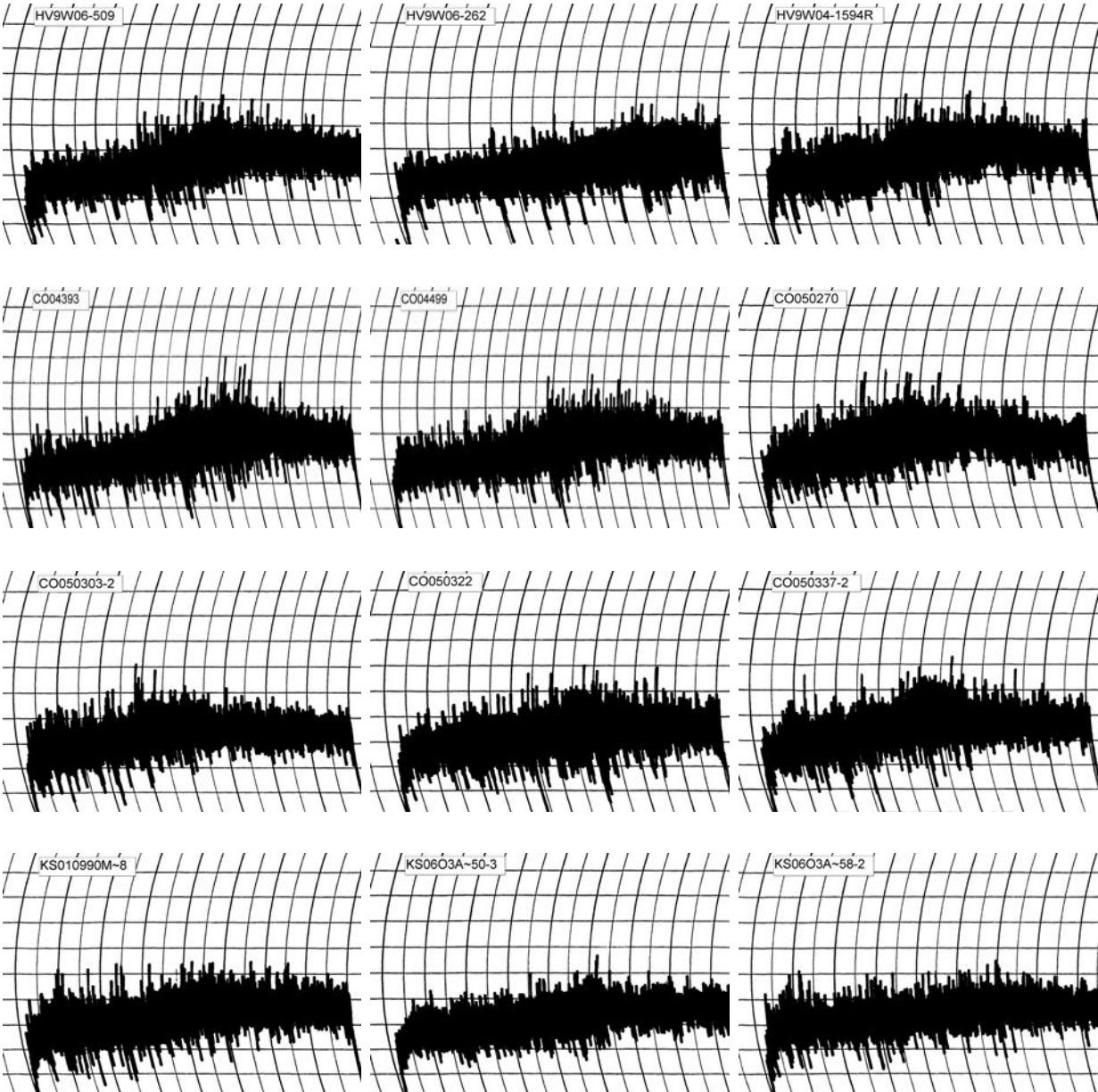
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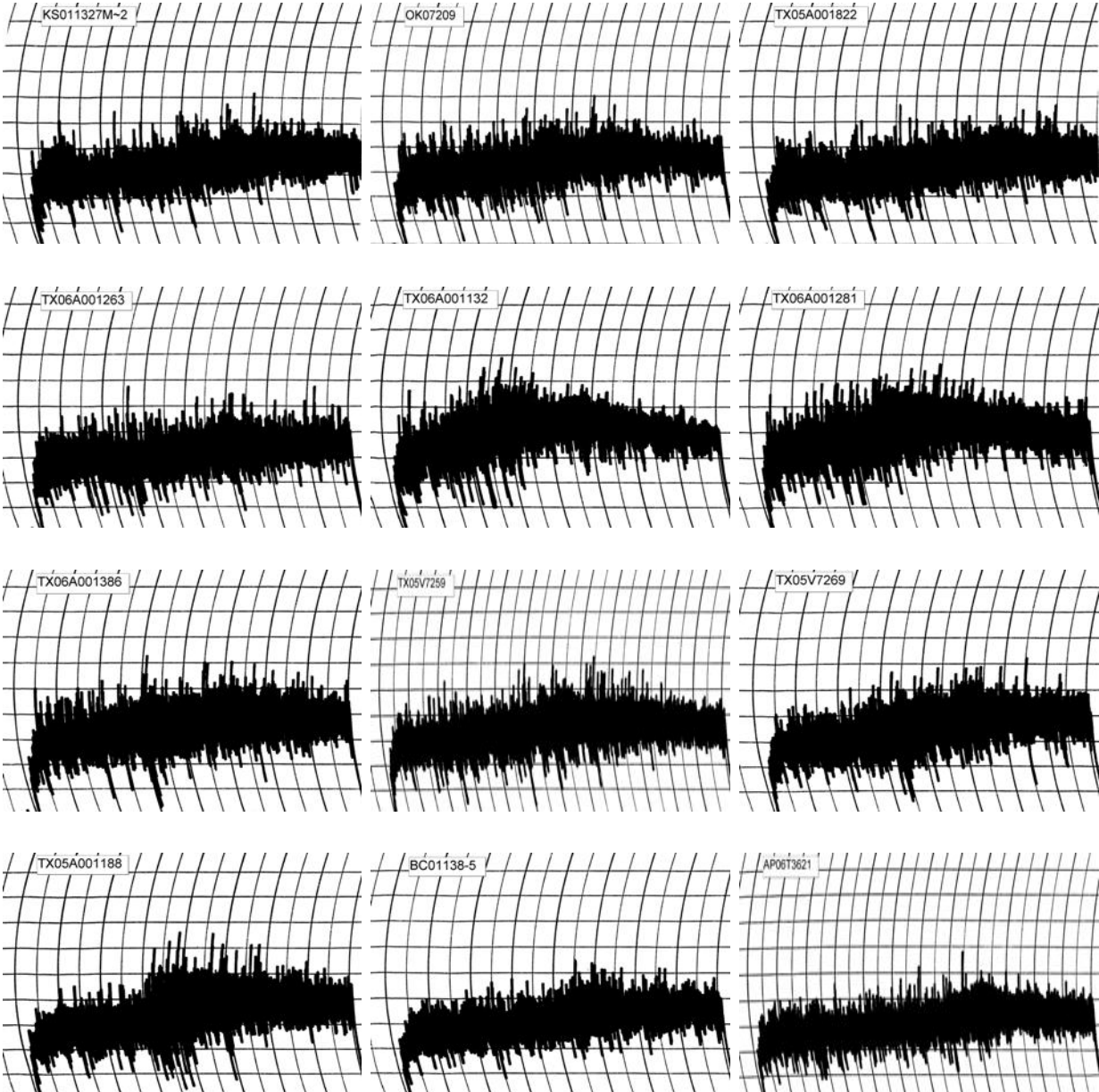
2010 SRPN Intraregional Production Zone North Central Plains



2010 SRPN Intraregional Production Zone North Central Plains



2010 SRPN Intraregional Production Zone North Central Plains



2010 SRPN Intraregional Production Zone

North Central Plains

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	120.92	171.42	93.17	78.25	181.17	88.00	6.00	84.85
Scout 66	129.50	198.92	118.50	80.42	219.58	101.08	6.07	67.75
TAM-107	128.92	256.67	164.92	91.75	292.58	127.67	6.33	67.65
Fuller	146.33	242.33	165.67	76.67	296.08	130.42	6.33	67.70
KS07HW52-5	112.67	231.33	119.92	111.42	212.50	92.58	6.13	67.65
KS08HW176-4	98.42	237.33	121.67	115.67	214.58	92.92	6.13	67.90
OK05526	117.92	253.17	160.25	92.92	284.17	123.92	6.27	67.80
OK05212	130.33	247.25	156.00	91.25	272.33	116.33	6.27	67.75
OK05204	115.83	249.25	153.75	95.50	268.33	114.58	6.27	67.80
OK05511	121.83	245.92	149.92	96.00	266.50	116.58	6.20	67.75
OK07231	128.33	217.75	143.67	74.08	263.83	120.17	6.20	66.05
T150-1	133.17	256.92	157.33	99.58	266.00	108.67	6.40	67.85
T166	125.08	252.00	164.42	87.58	288.08	123.67	6.33	67.85
T167	136.58	257.00	164.67	92.33	287.92	123.25	6.40	68.45
T168	122.67	241.25	150.25	91.00	265.33	115.08	6.20	67.80
NE06545	106.25	248.08	154.92	93.17	284.75	129.83	6.13	66.90
NE07444	127.08	223.42	140.00	83.42	257.17	117.17	6.13	67.70
NI07703	105.67	218.58	122.08	96.50	230.67	108.58	6.07	67.65
NI08708	61.33	92.83	23.42	69.42	57.75	34.33	5.00	67.85
BC01007-7	111.08	172.42	93.50	78.92	189.25	95.75	5.80	67.70
BC01131-24	106.00	247.75	140.83	106.92	236.75	95.92	6.20	67.75
BC01139-1	115.25	190.08	115.17	74.92	215.25	100.08	6.07	67.85
00X0100-51	132.00	225.00	145.92	79.08	273.58	127.67	6.13	67.80
HV9W06-1046	68.50	106.67	30.75	75.92	74.58	43.83	5.13	67.70
HV9W06-509	118.08	215.08	120.92	94.17	223.42	102.50	6.07	67.80
HV9W06-262	134.67	232.00	151.25	80.75	274.17	122.92	6.20	66.85
HV9W04-1594R	139.75	210.83	132.42	78.42	242.58	110.17	6.20	67.65
CO04393	126.08	242.42	140.08	102.33	242.75	102.67	6.27	67.65
CO04499	127.08	261.00	159.42	101.58	270.00	110.58	6.33	67.85
CO050270	129.00	203.00	120.00	83.00	224.92	104.92	6.07	69.40
CO050303-2	147.42	231.00	158.33	72.67	283.75	125.42	6.33	86.50
CO050322	133.00	223.67	145.50	78.17	271.08	125.58	6.20	67.70
CO050337-2	121.75	247.17	155.25	91.92	280.00	124.75	6.20	67.75
KS010990M-8	106.17	174.17	84.92	89.25	171.25	86.33	5.87	67.85
KS06O3A-50-3	129.00	221.17	142.25	78.92	259.58	117.33	6.27	67.65
KS06O3A-58-2	127.00	206.33	117.42	88.92	227.08	109.67	6.07	66.95
KS011327M-2	130.08	229.25	150.33	78.92	268.92	118.58	6.27	67.80
OK07209	126.67	253.00	164.42	88.58	294.50	130.08	6.27	67.85
TX05A001822	126.58	241.58	152.50	89.08	272.25	119.75	6.20	67.75
TX06A001263	129.67	244.33	145.50	98.83	248.25	102.75	6.27	67.75
TX06A001132	117.00	218.75	144.58	74.17	265.58	121.00	6.13	67.85
TX06A001281	108.42	198.25	95.75	102.50	176.00	80.25	6.07	69.35
TX06A001386	123.33	254.08	146.00	108.08	248.67	102.67	6.27	67.65
TX05V7259	135.75	243.75	165.25	78.50	292.00	126.75	6.33	67.80
TX05V7269	121.58	238.42	156.92	81.50	285.25	128.33	6.20	67.75
TX05A001188	122.00	245.75	156.92	88.83	280.17	123.25	6.27	67.85

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)
BC01138-5	111.25	230.67	138.92	91.75	247.42	108.50	6.20	67.70
AP06T3621	122.67	243.08	149.17	93.92	272.17	123.00	6.20	67.65

2010 SRPN Intraregional Production Zone

North Central Plains

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	Loaf Volume	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	12.7	64.3	5.25	5.25	172.4	7.7	4.0	955	6.4	68
Scout 66	12.4	63.6	3.75	3.75	172.7	7.8	4.5	950	6.4	69
TAM-107	11.7	63.7	6.13	5.87	172.0	7.8	4.0	1010	6.8	82
Fuller	11.4	63.6	7.25	6.73	172.1	7.5	3.5	920	6.2	74
KS07HW52-5	11.3	63.5	8.88	8.10	171.9	7.3	4.0	900	6.1	72
KS08HW176-4	10.8	60.6	6.00	5.11	169.3	7.1	2.8	855	5.8	71
OK05526	10.9	61.7	6.75	5.87	170.0	7.3	4.0	925	6.3	78
OK05212	11.1	62.6	5.25	4.71	171.7	7.1	5.5	920	6.3	76
OK05204	10.5	60.7	5.88	4.82	169.5	7.4	5.0	910	6.3	80
OK05511	11.0	61.5	6.50	5.68	170.3	7.4	4.5	935	6.4	79
OK07231	10.7	62.5	8.13	6.90	171.1	7.5	4.0	900	6.1	77
T150-1	11.4	62.2	8.88	8.23	169.8	7.5	3.0	965	6.6	79
T166	11.4	61.2	5.50	5.08	169.7	7.6	3.0	970	6.6	80
T167	11.1	65.5	8.50	7.55	173.3	7.3	4.0	900	5.9	74
T168	11.7	61.4	5.25	5.03	170.2	7.7	3.0	995	6.8	80
NE06545	10.5	61.5	7.00	5.72	168.6	7.6	3.5	890	5.9	78
NE07444	10.5	63.6	8.63	7.09	172.1	7.3	4.2	885	5.9	77
NI07703	11.2	62.4	5.38	4.85	170.7	7.9	3.8	1005	6.1	86
NI08708	11.3	62.7	6.25	5.74	172.0	7.3	4.0	950	6.3	78
BC01007-7	10.9	61.5	7.25	6.28	170.3	7.5	5.0	920	6.2	78
BC01131-24	11.5	61.5	7.13	6.74	172.7	7.3	3.8	980	6.6	79
BC01139-1	10.9	61.5	6.25	5.45	170.0	7.2	4.0	900	6.0	75
00X0100-51	10.5	60.6	8.00	6.57	169.4	7.1	4.0	835	5.6	70
HV9W06-1046	11.8	61.8	4.75	4.65	170.9	7.1	4.0	950	6.3	74
HV9W06-509	11.2	64.7	6.88	6.20	172.7	7.6	4.0	960	6.4	80
HV9W06-262	11.6	61.6	8.25	7.88	169.7	7.3	4.0	925	6.3	72
HV9W04-1594R	11.4	62.5	6.25	5.77	170.7	7.5	3.0	900	6.1	72
CO04393	11.7	62.8	8.63	8.31	170.5	7.4	4.0	985	6.7	79
CO04499	11.2	61.9	7.50	6.76	169.9	7.5	3.8	960	6.6	80
CO050270	11.2	62.7	4.13	3.75	171.8	7.1	3.2	885	6.0	71
CO050303-2	10.6	60.6	4.63	3.85	169.6	6.9	3.0	835	5.7	70
CO050322	10.9	61.6	6.00	5.18	170.0	7.1	4.0	875	5.9	73
CO050337-2	10.7	61.6	5.38	4.52	170.0	7.6	4.0	915	6.3	79
KS010990M-8	10.6	61.7	6.00	4.97	170.3	7.1	4.5	905	6.2	79
KS06O3A-50-3	11.4	59.5	5.25	4.89	168.5	7.4	3.0	925	6.4	74
KS06O3A-58-2	11.4	60.7	5.63	5.26	168.9	7.6	3.5	890	6.1	70
KS011327M-2	11.1	60.7	6.00	5.33	169.3	7.5	3.5	950	6.5	80
OK07209	10.9	61.9	5.88	5.11	170.4	7.6	4.5	910	6.2	77
TX05A001822	11.2	61.7	6.38	5.75	170.0	7.6	4.8	925	6.3	76
TX06A001263	11.6	61.6	5.50	5.27	170.3	7.7	4.5	970	6.5	77
TX06A001132	11.3	61.6	4.25	3.91	170.8	7.7	3.5	925	6.2	75
TX06A001281	11.9	61.8	4.63	4.55	171.9	7.8	3.0	1025	6.9	82
TX06A001386	11.0	62.8	6.38	5.60	171.4	7.7	2.0	900	6.0	75
TX05V7259	11.2	62.8	8.50	7.69	171.5	7.6	4.0	885	5.9	71

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	Loaf Volume	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
TX05V7269	10.7	62.5	5.75	4.87	171.2	7.6	3.8	935	6.3	81
TX05A001188	11.6	63.6	6.63	6.34	172.8	7.6	4.0	915	6.1	71
BC01138-5	11.1	59.8	5.25	4.70	168.6	7.4	3.5	920	6.3	76
AP06T3621	10.6	60.2	7.75	6.48	168.9	7.7	4.0	920	6.3	80

SRPN Sample ID List

Entry	Breeder ID	HWWQL ID			
		North Central Plains	Northern High Plains	South Central Plains	Southern High Plains
1	Kharkof	10-SNC1001	10-SNH1001	10-SSC1001	10-SSH1001
2	Scout 66	10-SNC1002	10-SNH1002	10-SSC1002	10-SSH1002
3	TAM-107	10-SNC1003	10-SNH1003	10-SSC1003	10-SSH1003
4	Fuller	10-SNC1004	10-SNH1004	10-SSC1004	10-SSH1004
5	KS07HW52-5	10-SNC1005	10-SNH1005	10-SSC1005	10-SSH1005
6	KS08HW176-4	10-SNC1006	10-SNH1006	10-SSC1006	10-SSH1006
7	OK05526	10-SNC1007	10-SNH1007	10-SSC1007	10-SSH1007
8	OK05212	10-SNC1008	10-SNH1008	10-SSC1008	10-SSH1008
9	OK05204	10-SNC1009	10-SNH1009	10-SSC1009	10-SSH1009
10	OK05511	10-SNC1010	10-SNH1010	10-SSC1010	10-SSH1010
11	OK07231	10-SNC1011	10-SNH1011	10-SSC1011	10-SSH1011
12	T150-1	10-SNC1012	10-SNH1012	10-SSC1012	10-SSH1012
13	T166	10-SNC1013	10-SNH1013	10-SSC1013	10-SSH1013
14	T167	10-SNC1014	10-SNH1014	10-SSC1014	10-SSH1014
15	T168	10-SNC1015	10-SNH1015	10-SSC1015	10-SSH1015
16	NE06545	10-SNC1016	10-SNH1016	10-SSC1016	10-SSH1016
17	NE07444	10-SNC1017	10-SNH1017	10-SSC1017	10-SSH1017
18	NI07703	10-SNC1018	10-SNH1018	10-SSC1018	10-SSH1018
19	NI08708	10-SNC1019	10-SNH1019	10-SSC1019	10-SSH1019
20	BC01007-7	10-SNC1020	10-SNH1020	10-SSC1020	10-SSH1020
21	BC01131-24	10-SNC1021	10-SNH1021	10-SSC1021	10-SSH1021
22	BC01139-1	10-SNC1022	10-SNH1022	10-SSC1022	10-SSH1022
23	00X0100-51	10-SNC1023	10-SNH1023	10-SSC1023	10-SSH1023
24	HV9W06-1046	10-SNC1024	10-SNH1024	10-SSC1024	10-SSH1024
25	HV9W06-509	10-SNC1025	10-SNH1025	10-SSC1025	10-SSH1025
26	HV9W06-262	10-SNC1026	10-SNH1026	10-SSC1026	10-SSH1026
27	HV9W04-1594R	10-SNC1027	10-SNH1027	10-SSC1027	10-SSH1027
28	CO04393	10-SNC1028	10-SNH1028	10-SSC1028	10-SSH1028
29	CO04499	10-SNC1029	10-SNH1029	10-SSC1029	10-SSH1029
30	CO050270	10-SNC1030	10-SNH1030	10-SSC1030	10-SSH1030
31	CO050303-2	10-SNC1031	10-SNH1031	10-SSC1031	10-SSH1031
32	CO050322	10-SNC1032	10-SNH1032	10-SSC1032	10-SSH1032
33	CO050337-2	10-SNC1033	10-SNH1033	10-SSC1033	10-SSH1033
34	KS010990M-8	10-SNC1034	10-SNH1034	10-SSC1034	10-SSH1034
35	KS0603A-50-3	10-SNC1035	10-SNH1035	10-SSC1035	10-SSH1035
36	KS0603A-58-2	10-SNC1036	10-SNH1036	10-SSC1036	10-SSH1036
37	KS011327M-2	10-SNC1037	10-SNH1037	10-SSC1037	10-SSH1037
38	OK07209	10-SNC1038	10-SNH1038	10-SSC1038	10-SSH1038
39	TX05A001822	10-SNC1039	10-SNH1039	10-SSC1039	10-SSH1039
40	TX06A001263	10-SNC1040	10-SNH1040	10-SSC1040	10-SSH1040
41	TX06A001132	10-SNC1041	10-SNH1041	10-SSC1041	10-SSH1041
42	TX06A001281	10-SNC1042	10-SNH1042	10-SSC1042	10-SSH1042
43	TX06A001386	10-SNC1043	10-SNH1043	10-SSC1043	10-SSH1043
44	TX05V7259	10-SNC1044	10-SNH1044	10-SSC1044	10-SSH1044
45	TX05V7269	10-SNC1045	10-SNH1045	10-SSC1045	10-SSH1045
46	TX05A001188	10-SNC1046	10-SNH1046	10-SSC1046	10-SSH1046
47	BC01138-5	10-SNC1047	10-SNH1047	10-SSC1047	10-SSH1047
48	AP06T3621	10-SNC1048	10-SNH1048	10-SSC1048	10-SSH1048

2010 SRPN Intraregional Production Zone North Central Plains

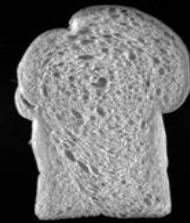
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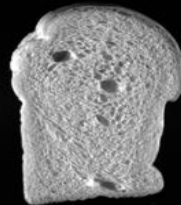
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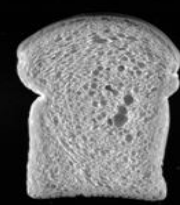
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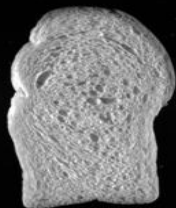
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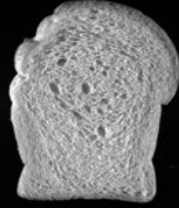
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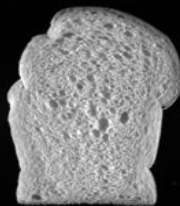
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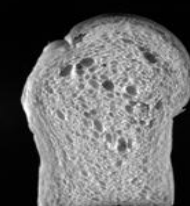
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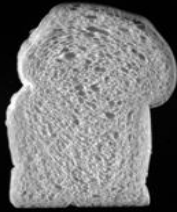


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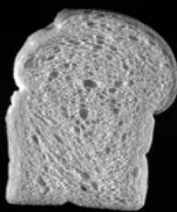


2010 SRPN Intraregional Production Zone North Central Plains

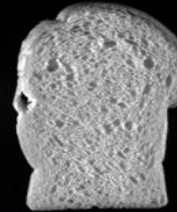
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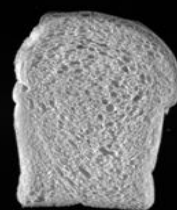
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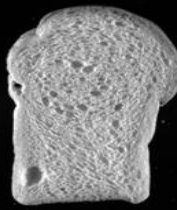
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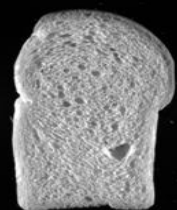
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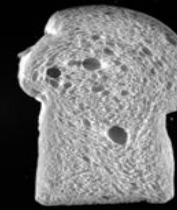
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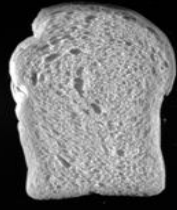
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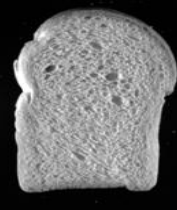
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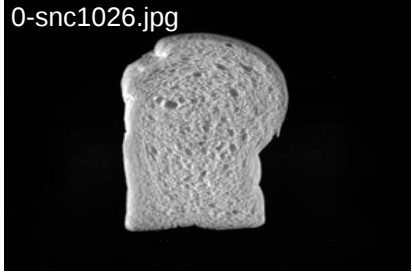


2010 SRPN Intraregional Production Zone North Central Plains

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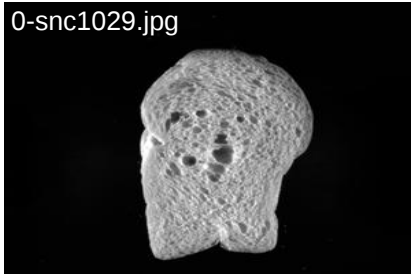
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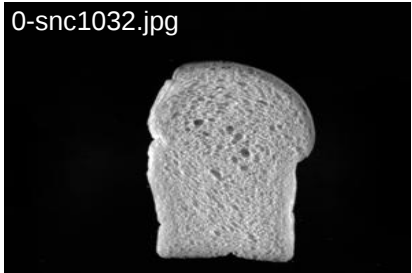
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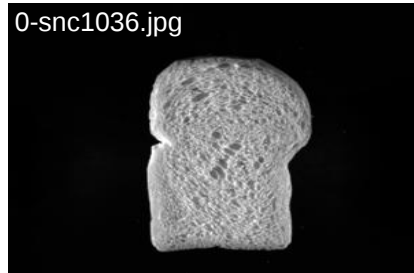
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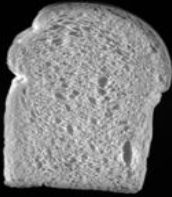


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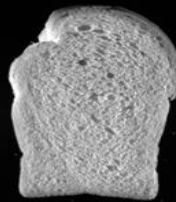


2010 SRPN Intraregional Production Zone North Central Plains

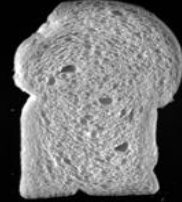
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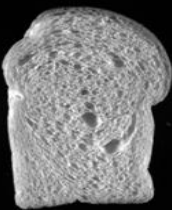
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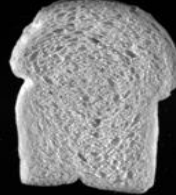
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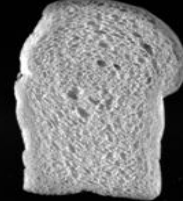
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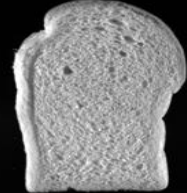
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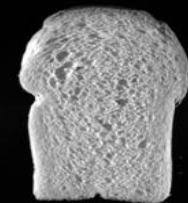
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Hard Winter Wheat Quality Report 2010 SRPN-NHP

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	50.7	Very Poor	78.6	57.7	Very Good	93.0		2,8,10,16,20,
Scout66	61.4	Very Good	95.3	52.4	Good	84.5		16,
TAM 107	55.7	Very Poor	86.5	37.2	Poor	59.9	1AL	16,
Fuller	56.0	Very Poor	86.8	58.7	Very Good	94.6		
KS07HW52-5	63.7	Very Good	98.8	54.4	Good	87.7		
KS08HW176-4	63.0	Very Good	97.8	34.5	Very Poor	55.6		16,
OK05526	59.7	Average	92.6	62.0	Very Good	100.0		
Garrison	58.9	Average	91.4	34.5	Very Poor	55.7		4,16,
OK05204	61.7	Very Good	95.7	38.2	Poor	61.6		16,
OK05511	60.5	Good	93.8	49.4	Good	79.7		
OK07231	60.4	Good	93.7	56.9	Very Good	91.8		
T150-1	54.4	Very Poor	84.3	54.0	Good	87.2		1,14,15,
T166	58.5	Average	90.8	42.9	Poor	69.1	1AL	16,
T167	57.8	Poor	89.7	45.3	Average	73.1		21,
T168	57.2	Poor	88.8	44.0	Average	70.9		16,21,
NE06545	49.9	Very Poor	77.4	47.4	Good	76.5		1,
NE07444	56.2	Poor	87.2	39.1	Poor	63.0		9,10,
NI07703	58.0	Poor	90.0	36.4	Very Poor	58.8		16,
NI08708	57.2	Poor	88.8	56.4	Very Good	91.0		
Wolf	61.3	Good	95.0	36.1	Very Poor	58.2		16,
BC01131-24	60.2	Good	93.4	44.3	Average	71.4		
BC01139-1	53.5	Very Poor	82.9	43.2	Poor	69.7		8,16,
SY Gold	56.2	Poor	87.1	43.7	Average	70.5		16,
HV9W06-1046	64.5	Very Good	100.0	43.6	Average	70.3		2,16,
HV9W06-509	60.0	Average	93.0	50.0	Good	80.7		16,
HV9W06-262	60.1	Good	93.2	44.9	Average	72.4		2,4,
HV9W04-1594R	56.1	Very Poor	87.0	35.2	Very Poor	56.7	1BL	2,4,9,10,16,17,
CO04393	60.0	Good	93.1	51.1	Good	82.4		
CO04499	60.7	Good	94.2	41.7	Poor	67.2		
CO050270	57.6	Poor	89.3	29.0	Very Poor	46.8		3,16,

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 2010 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
CO050303-2	61.5	Good	95.4	28.1	Very Poor	45.3		11,13,16,18,19,
CO050322	58.2	Average	90.3	44.0	Average	70.9		11,16,18,19,
CO050337-2	58.2	Average	90.3	34.0	Very Poor	54.9		11,16,18,19,21,
KS010990M-8	53.3	Very Poor	82.7	50.1	Good	80.7		
KS06O3A~50-3	59.0	Average	91.6	42.2	Poor	68.1		16,21,
KS06O3A~58-2	55.9	Very Poor	86.7	45.3	Average	73.0		3,5,8,16,20,
KS011327M-2	63.7	Very Good	98.8	56.3	Very Good	90.7		
OK07209	62.8	Very Good	97.4	56.5	Very Good	91.1		
TX05A001822	60.7	Good	94.2	41.8	Poor	67.4		
TX06A001263	58.1	Poor	90.2	50.9	Good	82.0	1AL	16,
TX06A001132	61.0	Good	94.6	41.1	Poor	66.2		16,
TX06A001281	57.2	Poor	88.7	47.5	Good	76.6		
TX06A001386	59.8	Average	92.7	38.1	Poor	61.4		8,16,19,21,
TX05V7259	59.8	Average	92.8	45.0	Average	72.5		8,19,
TX05V7269	52.4	Very Poor	81.3	34.9	Very Poor	56.2		8,10,11,16,
TX05A001188	61.4	Very Good	95.3	61.8	Very Good	99.7		
CJ	62.7	Very Good	97.3	54.0	Very Good	87.1		
AP06T3621	56.5	Poor	87.6	37.6	Very Poor	60.6		

2010 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	59.9	11.3	0.6	26.8	6.2	2.51	0.27	47 20	MIXED	25--24--28--23--03	
Scout 66	60.7	10.6	0.6	31.0	8.2	2.64	0.33	62 19	HARD	07--14--20--59--02	
TAM-107	59.1	10.3	0.6	32.1	8.7	2.64	0.35	68 19	HARD	04--10--18--68--01	
Fuller	60.0	10.8	0.6	30.1	7.7	2.68	0.30	61 18	HARD	05--17--22--56--01	
KS07HW52-5	62.8	10.6	0.6	32.6	9.0	2.74	0.36	74 20	HARD	03--05--13--79--01	
KS08HW176-4	62.0	10.5	0.5	30.9	8.3	2.62	0.32	77 19	HARD	02--07--10--81--01	
OK05526	60.6	10.7	0.5	33.0	8.4	2.75	0.32	59 18	HARD	07--15--26--52--02	
OK05212	60.7	10.2	0.7	28.0	7.6	2.48	0.32	62 17	HARD	05--13--26--56--01	
OK05204	61.1	10.4	0.6	33.8	8.8	2.76	0.35	65 18	HARD	04--12--21--63--01	
OK05511	61.0	10.5	0.6	33.1	8.4	2.73	0.35	63 19	HARD	05--12--22--61--01	
OK07231	59.7	10.7	0.5	31.1	7.1	2.68	0.29	72 20	HARD	03--08--17--72--01	
T150-1	57.8	10.7	0.7	30.2	7.8	2.61	0.33	68 21	HARD	06--10--14--70--02	
T166	60.3	10.7	0.5	31.2	8.8	2.61	0.32	69 19	HARD	04--08--20--68--01	
T167	59.4	10.9	0.5	34.9	9.3	2.67	0.34	72 18	HARD	02--06--13--79--01	
T168	60.4	11.0	0.6	29.0	7.6	2.57	0.31	65 18	HARD	03--12--21--64--01	
NE06545	58.0	11.1	0.7	28.3	8.8	2.55	0.35	47 21	MIXED	27--20--22--31--03	
NE07444	59.0	11.4	0.6	29.6	8.4	2.62	0.34	64 20	HARD	05--14--20--61--01	
NI07703	59.4	11.0	0.6	30.8	8.7	2.59	0.34	62 17	HARD	05--13--26--56--01	
NI08708	59.2	10.8	0.6	31.7	9.4	2.64	0.34	60 19	MIXED	11--14--23--52--03	
BC01007-7	60.7	11.0	0.6	28.9	7.6	2.54	0.33	69 18	HARD	02--08--16--74--01	
BC01131-24	60.0	10.9	0.7	27.6	7.4	2.57	0.34	65 18	HARD	04--12--20--64--01	
BC01139-1	60.2	10.8	0.6	31.8	8.9	2.70	0.36	61 17	HARD	04--14--28--54--01	
00X0100-51	60.4	10.9	0.6	28.8	7.5	2.57	0.30	72 22	HARD	03--09--18--70--01	
HV9W06-1046	61.7	11.0	0.6	26.9	6.2	2.56	0.27	68 18	HARD	03--08--23--66--01	
HV9W06-509	60.5	11.1	0.6	30.2	7.3	2.63	0.31	63 18	HARD	04--15--22--59--01	
HV9W06-262	61.2	10.8	0.7	24.6	6.0	2.39	0.28	69 17	HARD	03--07--18--72--01	
HV9W04-1594R	59.4	10.9	0.7	25.4	6.6	2.46	0.30	81 19	HARD	00--03--12--85--01	
CO04393	60.1	10.8	0.7	30.9	8.2	2.69	0.36	56 18	HARD	10--20--26--44--02	
CO04499	61.2	10.7	0.7	32.0	8.2	2.69	0.35	62 18	HARD	06--16--19--59--02	
CO050270	60.5	11.3	0.6	33.0	9.8	2.64	0.36	57 17	HARD	08--17--29--46--02	
CO050303-2	61.5	11.3	0.6	34.4	8.4	2.70	0.33	56 18	MIXED	11--21--26--42--03	
CO050322	60.3	11.2	0.6	32.0	7.9	2.63	0.31	57 19	MIXED	11--19--24--46--03	
CO050337-2	60.7	11.3	0.6	32.6	8.4	2.64	0.31	57 19	MIXED	13--14--26--47--03	
KS010990M~8	59.6	10.7	0.7	29.2	8.3	2.59	0.36	67 23	HARD	09--10--17--64--02	
KS06O3A~50-3	60.3	11.0	0.6	35.7	9.0	2.79	0.32	57 17	HARD	06--20--30--44--02	
KS06O3A~58-2	60.4	11.0	0.6	33.6	9.6	2.73	0.37	72 16	HARD	02--04--15--79--01	
KS011327M~2	60.6	11.1	0.6	33.6	7.7	2.83	0.34	65 19	HARD	04--13--22--61--01	
OK07209	61.2	11.2	0.6	32.2	8.3	2.73	0.32	57 17	HARD	08--20--28--44--02	
TX05A001822	60.4	11.1	0.6	30.9	7.2	2.67	0.30	60 19	HARD	08--17--24--51--02	
TX06A001263	60.6	11.5	0.6	29.6	8.3	2.63	0.32	71 21	HARD	05--06--15--74--01	
TX06A001132	60.5	11.5	0.6	33.9	9.1	2.72	0.33	59 18	HARD	08--17--23--52--02	
TX06A001281	59.9	11.4	0.5	30.4	8.0	2.57	0.31	67 16	HARD	02--07--20--71--01	
TX06A001386	62.4	11.2	0.5	31.4	7.6	2.66	0.33	75 19	HARD	02--03--12--83--01	
TX05V7259	60.8	11.1	0.5	33.0	7.2	2.77	0.28	66 16	HARD	02--09--21--68--01	
TX05V7269	60.3	11.6	0.5	30.6	8.3	2.59	0.30	63 19	HARD	06--17--18--59--02	

LINE	Wt/Bu (lb)	SKCS Average Kernel						Hardness			
		Moisture		Weight		Diameter		SKCS		Class	Distribution
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)	(sd)			
TX05A001188	60.4	11.0	0.5	27.9	7.6	2.54	0.30	64	19	HARD	05--14--21--60--01
BC01138-5	60.1	11.0	0.6	30.3	7.2	2.68	0.31	63	17	HARD	05--11--23--61--01
AP06T3621	59.2	11.1	0.5	31.5	8.4	2.61	0.34	60	20	HARD	07--17--24--52--02

2010 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	13.8	67.8	0.41	12.6	0.611	80.61	-2.61	24.07	-11.09	1.54	1.03
Scout 66	13.1	72.3	0.39	12.0	0.619	80.74	-2.07	22.36	-12.66	1.71	2.03
TAM-107	12.2	69.5	0.39	11.1	0.577	80.70	-2.01	22.91	-13.26	1.42	4.32
Fuller	12.5	68.4	0.38	11.4	0.745	82.16	-1.91	20.10	-14.06	1.40	5.41
KS07HW52-5	12.3	72.2	0.42	11.4	0.609	82.13	-2.30	21.46	-14.42	2.00	3.75
KS08HW176-4	11.8	71.5	0.42	10.9	0.690	81.55	-2.24	22.76	-13.42	1.80	2.94
OK05526	12.8	70.1	0.37	11.7	0.567	82.50	-2.01	21.54	-13.90	1.47	3.62
OK05212	13.0	70.3	0.35	12.1	0.575	81.53	-2.07	21.95	-11.61	1.28	2.08
OK05204	12.1	71.0	0.38	10.9	0.676	82.12	-1.92	20.24	-12.46	1.16	4.88
OK05511	12.3	70.7	0.38	10.9	0.684	81.30	-1.85	20.70	-11.32	1.13	4.32
OK07231	12.5	70.2	0.40	11.3	0.245	82.76	-1.92	20.32	-11.63	1.08	5.82
T150-1	12.9	69.5	0.39	11.7	0.587	79.84	-1.45	21.36	-13.33	1.40	1.55
T166	11.7	70.5	0.39	10.9	0.595	80.89	-2.28	23.50	-12.23	1.60	2.87
T167	12.3	68.9	0.38	11.1	0.530	80.40	-2.09	24.09	-12.73	1.55	3.02
T168	12.9	68.4	0.34	11.4	0.608	79.15	-2.03	24.30	-10.81	1.29	-0.13
NE06545	11.7	70.5	0.39	10.6	0.607	81.77	-2.46	22.78	-13.24	1.44	4.26
NE07444	12.1	71.9	0.45	10.8	0.644	80.47	-2.41	23.74	-11.79	1.46	2.67
NI07703	12.1	71.4	0.42	11.3	0.626	79.36	-2.25	25.60	-10.88	1.36	1.01
NI08708	12.7	71.5	0.38	11.7	0.699	79.48	-1.91	23.29	-12.14	1.72	0.07
BC01007-7	12.2	71.6	0.40	11.0	0.725	80.10	-2.29	23.78	-13.59	1.79	2.60
BC01131-24	12.3	71.6	0.39	11.4	0.609	79.33	-1.83	23.76	-12.28	1.84	0.24
BC01139-1	12.3	67.4	0.40	11.7	0.662	80.14	-2.36	25.25	-13.01	1.45	1.74
00X0100-51	11.9	69.1	0.37	10.9	0.525	80.56	-1.90	23.96	-11.53	1.17	1.20
HV9W06-1046	12.4	71.6	0.38	11.7	0.646	79.86	-2.39	26.48	-11.57	2.06	-0.89
HV9W06-509	11.3	70.8	0.41	10.7	0.672	80.33	-2.56	24.46	-11.92	2.49	0.57
HV9W06-262	12.3	70.3	0.41	11.0	0.628	81.13	-2.61	24.50	-10.97	1.53	2.37
HV9W04-1594R	12.1	68.7	0.43	10.9	0.476	82.23	-2.10	22.62	-13.01	1.65	4.21
CO04393	11.9	71.5	0.35	11.1	0.730	82.21	-2.41	22.75	-12.89	1.67	3.79
CO04499	11.7	70.6	0.36	10.8	0.687	81.57	-2.41	23.56	-12.17	1.76	2.80
CO050270	11.5	70.7	0.40	10.5	0.557	83.07	-1.83	19.52	-12.93	1.30	5.47
CO050303-2	11.0	72.0	0.42	10.1	0.602	81.37	-2.17	24.30	-11.38	1.58	2.88
CO050322	10.6	70.5	0.39	9.8	0.611	82.69	-2.14	23.07	-11.53	1.08	4.54
CO050337-2	11.1	70.6	0.39	9.9	0.588	81.92	-2.31	24.27	-11.42	1.79	3.25
KS010990M-8	11.5	70.4	0.43	10.4	0.557	82.43	-1.94	22.32	-11.73	1.29	3.44
KS06O3A-50-3	11.7	69.8	0.41	11.2	0.563	81.30	-1.98	24.98	-10.75	1.38	1.59
KS06O3A-58-2	12.9	68.0	0.42	12.2	0.514	80.88	-1.68	24.14	-11.48	1.43	3.11
KS011327M-2	12.6	72.0	0.40	11.6	0.584	82.05	-1.58	20.78	-13.16	1.28	5.04
OK07209	11.3	71.3	0.33	10.5	0.481	81.91	-2.40	24.38	-10.10	1.00	2.67
TX05A001822	11.9	71.3	0.39	10.9	0.580	82.99	-1.92	21.02	-13.39	0.85	5.39
TX06A001263	11.7	70.9	0.42	10.8	0.644	82.34	-1.90	21.39	-13.56	1.13	2.71
TX06A001132	12.1	72.0	0.40	11.0	0.658	81.59	-1.80	22.94	-12.39	1.23	3.42
TX06A001281	12.4	68.4	0.40	11.4	0.664	81.66	-1.84	22.10	-14.24	1.41	4.69

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
	(%)	(%)	(%)	(%)							
TX06A001386	11.2	67.8	0.37	10.5	0.640	83.06	-1.80	20.99	-11.07	0.87	4.45
TX05V7259	11.9	67.4	0.40	10.8	0.671	82.58	-1.73	20.83	-11.90	1.20	4.23
TX05V7269	11.0	67.3	0.40	9.9	0.689	82.91	-2.00	21.40	-14.19	2.02	3.38
TX05A001188	12.1	73.0	0.40	11.2	0.570	82.02	-1.82	21.69	-13.07	1.81	2.13
BC01138-5	11.8	71.8	0.39	10.9	0.624	81.25	-1.90	22.87	-13.59	2.55	1.95
AP06T3621	11.7	71.2	0.41	10.7	0.628	81.93	-1.81	21.73	-13.34	2.21	1.65

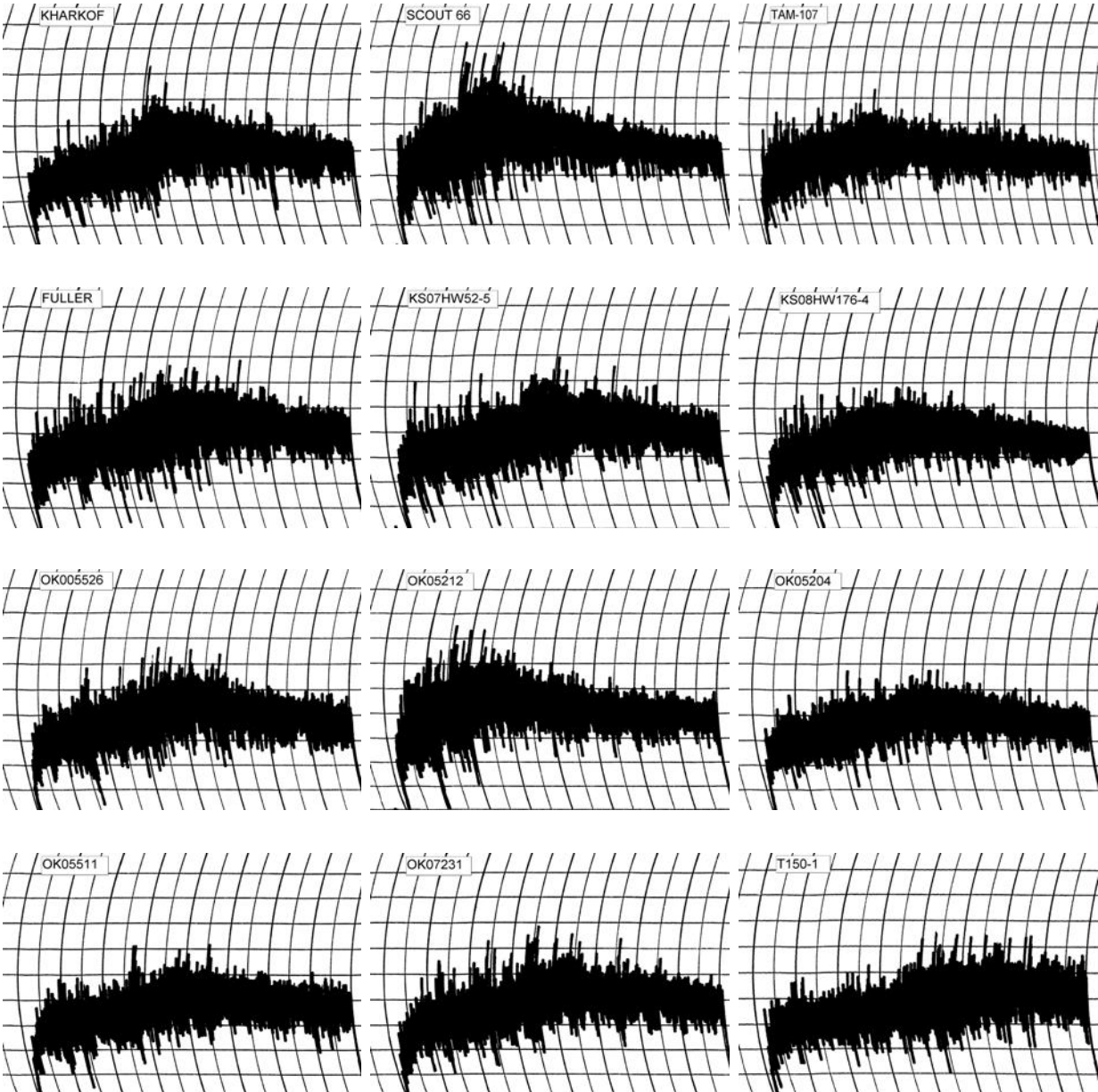
2010 SRPN Intraregional Production Zone

Northern High Plains

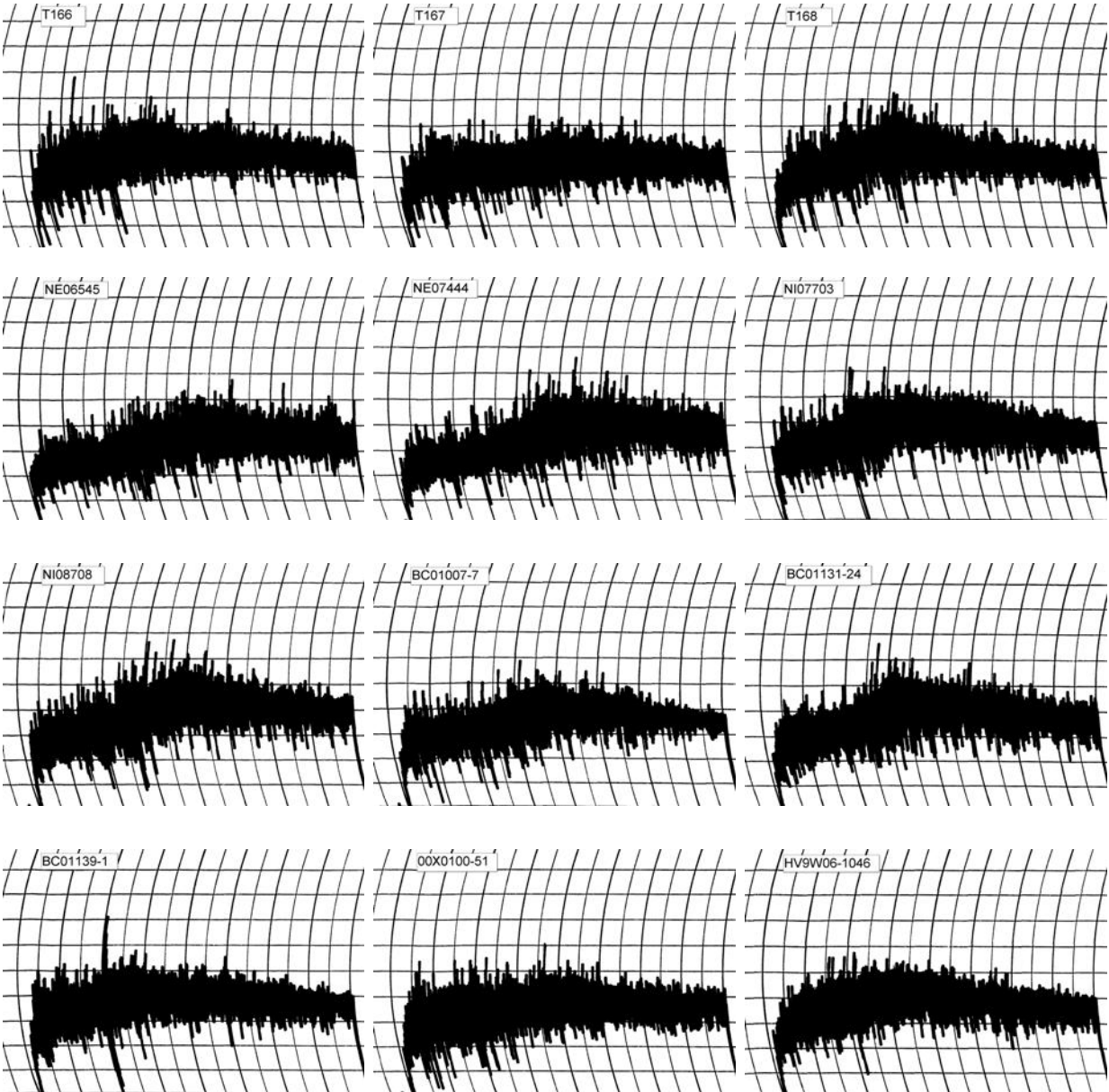
	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	12.6	63.9	3.38	3.38	2
Scout 66	12.0	62.9	2.50	2.50	2
TAM-107	11.1	61.5	3.50	3.13	2
Fuller	11.4	62.0	4.00	3.73	4
KS07HW52-5	11.4	62.9	4.00	3.70	4
KS08HW176-4	10.9	61.2	3.50	3.06	1
OK05526	11.7	62.4	3.88	3.73	4
OK05212	12.1	63.1	2.38	2.38	2
OK05204	10.9	61.1	3.75	3.27	2
OK05511	10.9	61.1	4.00	3.47	3
OK07231	11.3	63.4	4.38	4.03	4
T150-1	11.7	62.4	5.75	5.54	5
T166	10.9	61.2	2.75	2.40	2
T167	11.1	61.4	4.00	3.57	3
T168	11.4	61.5	3.25	3.02	2
NE06545	10.6	59.6	4.38	3.65	3
NE07444	10.8	59.9	4.38	3.75	4
NI07703	11.3	60.7	3.50	3.20	2
NI08708	11.7	61.9	4.00	3.85	3
BC01007-7	11.0	60.7	3.63	3.18	0
BC01131-24	11.4	61.4	3.38	3.13	3
BC01139-1	11.7	60.9	2.63	2.52	1
00X0100-51	10.9	60.0	3.50	3.02	2
HV9W06-1046	11.7	60.4	2.63	2.52	2
HV9W06-509	10.7	59.8	3.50	2.96	2
HV9W06-262	11.0	60.4	4.50	3.98	5
HV9W04-1594R	10.9	59.6	3.88	3.36	1
CO04393	11.1	59.8	5.13	4.55	4
CO04499	10.8	59.9	3.50	3.01	3
CO050270	10.5	59.5	2.88	2.37	2
CO050303-2	10.1	58.8	3.13	2.42	2
CO050322	9.8	59.3	3.13	2.30	1
CO050337-2	9.9	59.5	3.38	2.53	2
KS010990M~8	10.4	60.2	4.00	3.22	4
KS06O3A~50-3	11.2	60.1	3.50	3.17	2
KS06O3A~58-2	12.2	61.3	3.63	3.63	2
KS011327M~2	11.6	61.3	3.63	3.47	3
OK07209	10.5	59.4	3.38	2.76	3
TX05A001822	10.9	60.1	3.50	3.02	3
TX06A001263	10.8	60.0	3.38	2.89	2
TX06A001132	11.0	60.2	2.38	2.09	1
TX06A001281	11.4	61.4	2.50	2.31	3

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
TX06A001386	10.5	59.5	3.50	2.89	2
TX05V7259	10.8	60.4	4.38	3.75	4
TX05V7269	9.9	59.4	3.63	2.72	2
TX05A001188	11.2	61.6	3.50	3.15	3
BC01138-5	10.9	61.1	3.50	3.02	3
AP06T3621	10.7	59.8	4.00	3.38	4

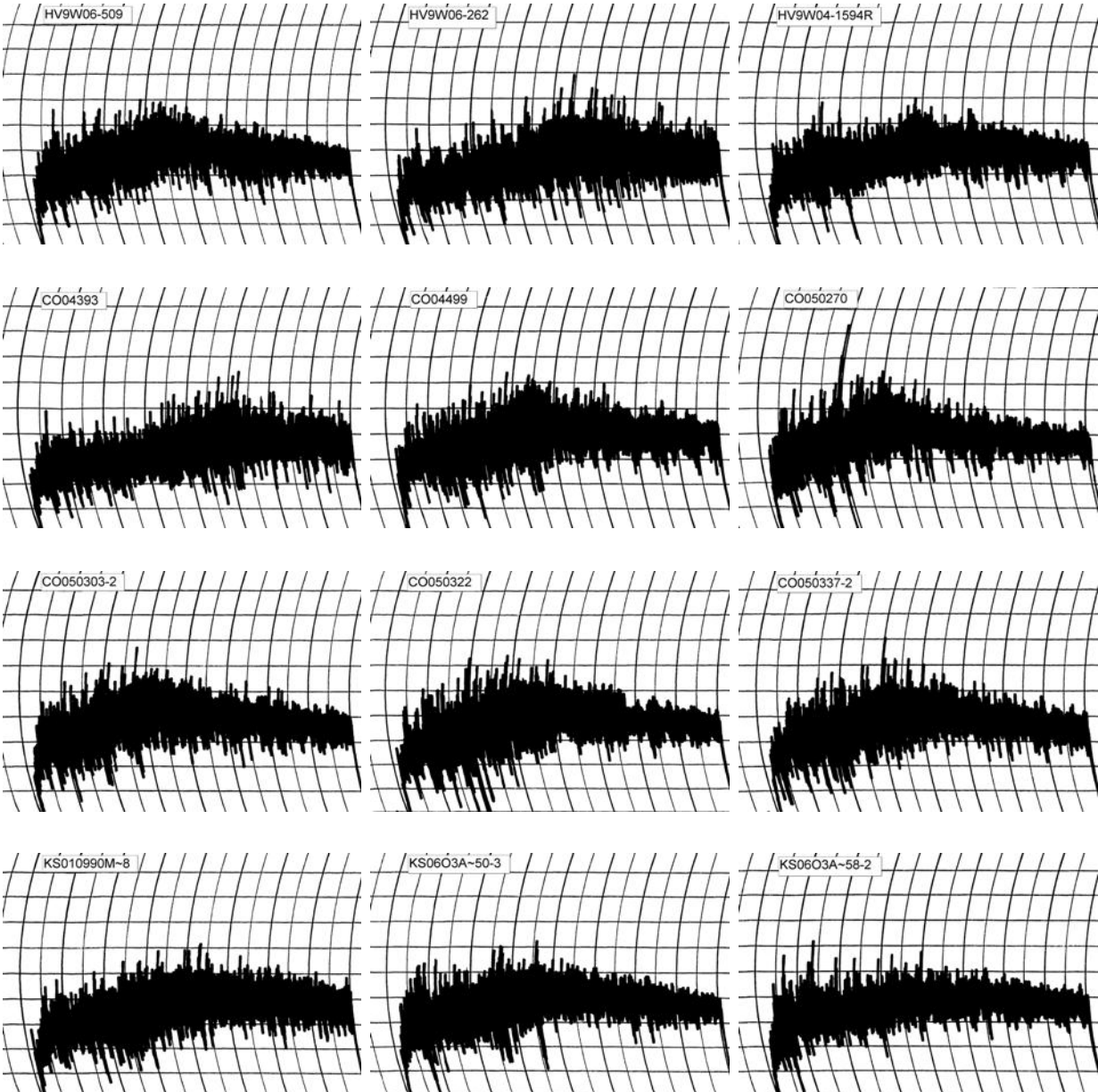
2010 SRPN Intraregional Production Zone Northern High Plains



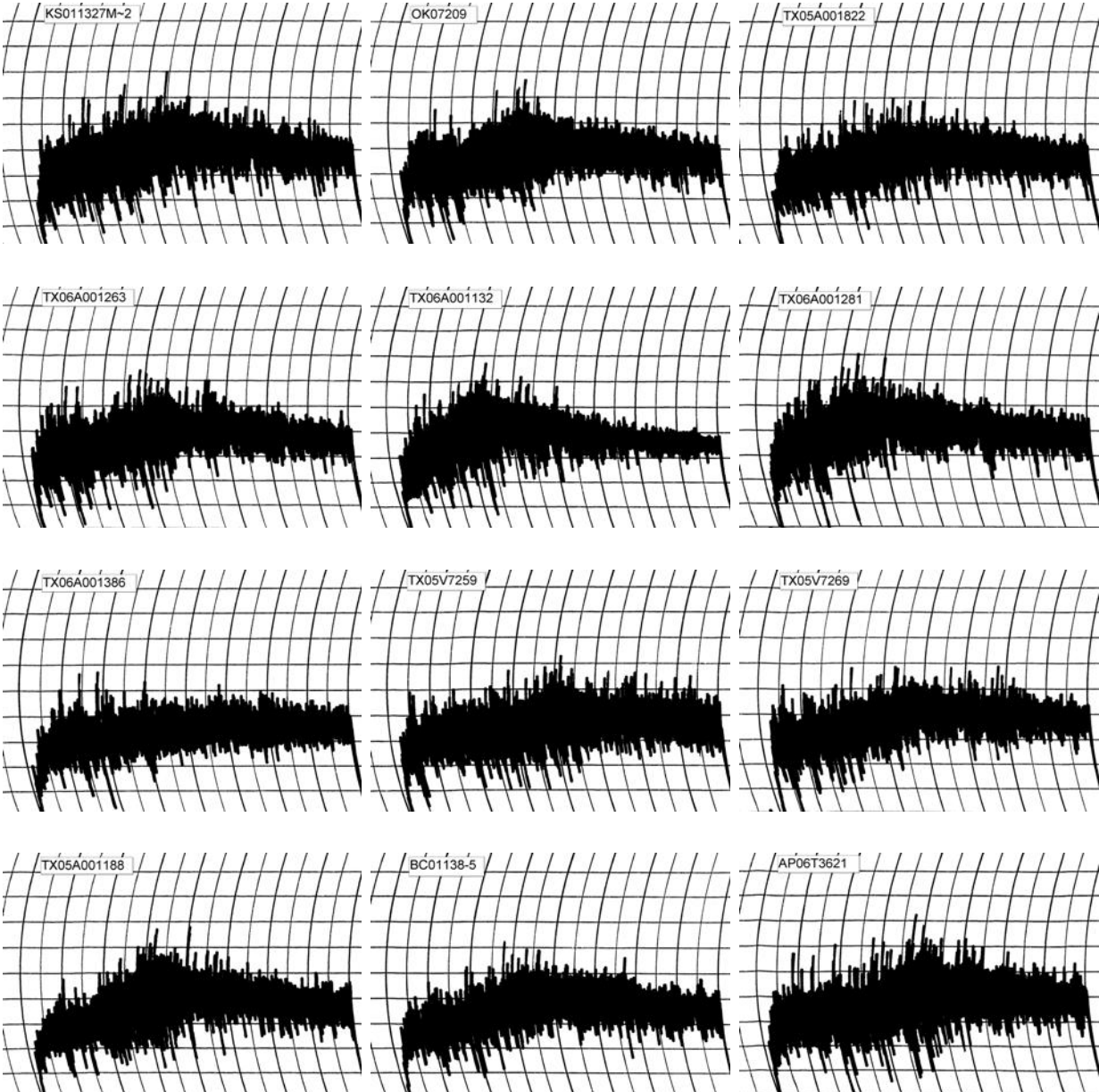
2010 SRPN Intraregional Production Zone Northern High Plains



2010 SRPN Intraregional Production Zone Northern High Plains



2010 SRPN Intraregional Production Zone Northern High Plains



2010 SRPN Intraregional Production Zone

Northern High Plains

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	139.25	223.58	145.67	77.92	257.67	112.00	6.27	86.60
Scout 66	103.42	167.33	90.83	76.50	183.08	92.25	5.87	66.90
TAM-107	125.58	255.50	167.00	88.50	285.00	118.00	6.40	67.75
Fuller	132.83	227.58	152.17	75.42	271.25	119.08	6.27	67.65
KS07HW52-5	113.42	242.92	127.58	115.33	219.17	91.58	6.13	66.90
KS08HW176-4	100.25	263.50	139.33	124.17	246.08	106.75	6.20	66.90
OK05526	117.50	231.17	139.92	91.25	252.08	112.17	6.07	67.70
OK05212	111.50	210.83	119.92	90.92	220.50	100.58	6.07	67.75
OK05204	95.83	226.92	131.75	95.17	234.67	102.92	6.20	66.80
OK05511	116.83	240.42	142.58	97.83	252.50	109.92	6.13	67.05
OK07231	111.08	205.00	134.25	70.75	247.08	112.83	6.20	66.10
T150-1	98.50	252.58	146.50	106.08	254.50	108.00	6.27	67.00
T166	118.75	243.17	149.83	93.33	265.08	115.25	6.27	67.80
T167	117.83	210.83	120.83	90.00	222.75	101.92	6.13	67.80
T168	114.08	227.25	138.83	88.42	248.67	109.83	6.27	67.80
NE06545	102.58	242.08	149.17	92.92	269.17	120.00	6.20	67.70
NE07444	105.08	195.50	117.08	78.42	221.75	104.67	6.07	67.75
NI07703	90.67	175.67	87.17	88.50	174.67	87.50	5.87	67.70
NI08708	104.08	211.83	134.83	77.00	250.83	116.00	6.13	67.70
BC01007-7	93.08	129.67	60.50	69.17	133.67	73.17	5.53	67.80
BC01131-24	102.25	242.00	131.42	110.58	227.17	95.75	6.20	67.80
BC01139-1	101.08	156.33	83.00	73.33	168.42	85.42	5.87	66.80
00X0100-51	111.42	185.08	112.67	72.42	216.17	103.50	6.07	67.75
HV9W06-1046	127.75	224.25	142.83	81.42	257.17	114.33	6.27	67.85
HV9W06-509	122.92	212.08	133.00	79.08	245.25	112.25	6.13	67.70
HV9W06-262	118.50	244.92	165.67	79.25	291.50	125.83	6.33	66.95
HV9W04-1594R	104.83	154.75	79.50	75.25	163.08	83.58	5.80	67.70
CO04393	102.17	241.83	140.17	101.67	241.75	101.58	6.27	67.75
CO04499	124.58	244.83	146.50	98.33	248.67	102.17	6.33	67.80
CO050270	94.17	145.58	68.75	76.83	151.00	82.25	5.67	67.75
CO050303-2	131.67	228.25	154.50	73.75	276.00	121.50	6.33	86.50
CO050322	106.83	207.00	126.17	80.83	243.25	117.08	6.07	68.55
CO050337-2	120.58	220.67	136.92	83.75	260.50	123.58	6.13	67.70
KS010990M-8	122.17	216.17	137.17	79.00	248.75	111.58	6.20	67.80
KS06O3A-50-3	132.08	193.42	116.50	76.92	213.83	97.33	6.20	67.70
KS06O3A-58-2	129.33	221.08	143.83	77.25	255.58	111.75	6.33	66.90
KS011327M-2	133.00	227.00	150.92	76.08	267.25	116.33	6.33	66.95
OK07209	125.08	239.67	156.00	83.67	280.75	124.75	6.27	67.80
TX05A001822	122.25	200.17	117.00	83.17	215.33	98.33	6.07	67.70
TX06A001263	95.42	179.17	78.17	101.00	154.58	76.42	5.80	67.85
TX06A001132	118.83	201.58	125.50	76.08	237.17	111.67	6.00	67.75
TX06A001281	85.92	212.83	108.08	104.75	192.08	84.00	6.20	68.70
TX06A001386	112.42	235.92	123.92	112.00	211.08	87.17	6.20	66.90
TX05V7259	159.67	234.67	166.92	67.75	280.92	114.00	6.47	67.75
TX05V7269	113.83	218.42	138.33	80.08	253.83	115.50	6.13	69.40
TX05A001188	117.33	228.92	138.17	90.75	251.25	113.08	6.20	67.85

RVA								
Line	Stirring Number (RVU)	Peak Viscosity (RVU)	Trough Viscosity (RVU)	Breakdown (RVU)	Final Viscosity (RVU)	Set back (RVU)	Peak Time (min)	Pasting Temp (Deg. C)
BC01138-5	126.00	246.67	147.08	99.58	251.08	104.00	6.20	67.00
AP06T3621	112.08	195.92	110.33	85.58	208.92	98.58	6.07	67.75

2010 SRPN Intraregional Production Zone

Northern High Plains

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	Loaf Volume	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	12.6	62.2	5.13	5.13	171.1	7.7	4.0	925	6.3	65
Scout 66	12.0	62.5	3.50	3.50	171.9	7.9	4.0	945	6.3	72
TAM-107	11.1	60.6	3.63	3.24	170.0	7.6	2.5	940	6.4	78
Fuller	11.4	62.4	5.25	4.90	171.3	7.7	4.0	925	6.2	74
KS07HW52-5	11.4	62.2	5.38	4.98	171.2	7.6	3.0	940	6.4	76
KS08HW176-4	10.9	61.4	3.88	3.39	170.7	7.3	3.5	880	6.0	73
OK05526	11.7	62.8	4.50	4.33	171.9	7.5	4.0	975	6.5	78
OK05212	12.1	61.6	3.00	3.00	170.9	7.4	3.5	950	6.5	71
OK05204	10.9	60.5	4.13	3.61	170.0	7.4	3.8	925	6.3	78
OK05511	10.9	61.5	4.38	3.80	170.5	7.3	3.0	910	6.3	77
OK07231	11.3	62.3	5.25	4.84	171.5	7.5	4.0	905	6.2	72
T150-1	11.7	62.6	7.25	6.99	171.3	7.8	4.0	1000	6.8	80
T166	10.9	60.3	3.75	3.27	169.7	7.2	3.0	900	6.1	75
T167	11.1	61.1	5.63	5.02	169.7	7.8	2.0	925	6.3	77
T168	11.4	61.2	3.63	3.37	170.5	7.6	2.0	965	6.6	79
NE06545	10.6	61.2	5.50	4.58	169.9	7.6	3.0	900	6.1	78
NE07444	10.8	61.1	5.50	4.71	169.7	7.5	4.5	910	6.1	78
NI07703	11.3	60.0	3.88	3.54	169.4	7.5	3.5	920	6.2	75
NI08708	11.7	61.5	4.50	4.34	170.8	7.4	4.0	930	6.3	72
BC01007-7	11.0	60.1	4.25	3.73	169.1	7.6	3.5	905	6.1	75
BC01131-24	11.4	61.2	4.50	4.16	170.0	7.7	2.5	985	6.7	82
BC01139-1	11.7	60.4	3.88	3.72	170.4	7.4	3.0	910	6.1	70
00X0100-51	10.9	61.5	4.00	3.45	170.9	7.3	3.0	860	5.7	71
HV9W06-1046	11.7	60.2	3.63	3.48	169.3	7.4	3.0	925	6.3	72
HV9W06-509	10.7	60.3	3.75	3.17	168.8	7.5	4.0	910	6.2	78
HV9W06-262	11.0	61.5	6.50	5.76	169.7	7.4	3.0	880	6.0	72
HV9W04-1594R	10.9	60.3	5.13	4.45	168.5	7.4	3.5	865	5.9	71
CO04393	11.1	60.5	6.25	5.55	168.8	7.4	4.0	950	6.5	80
CO04499	10.8	61.6	4.75	4.08	169.9	7.5	3.5	935	6.5	80
CO050270	10.5	60.1	3.63	2.98	169.0	7.4	3.5	845	5.8	72
CO050303-2	10.1	61.4	3.50	2.71	170.3	7.1	3.5	820	5.6	72
CO050322	9.8	60.5	3.88	2.85	169.3	7.1	4.0	835	5.7	77
CO050337-2	9.9	60.4	4.50	3.37	169.0	7.0	2.0	785	5.4	69
KS010990M-8	10.4	61.1	5.25	4.22	170.0	7.4	3.0	905	6.1	81
KS06O3A-50-3	11.2	60.2	4.00	3.62	169.4	7.6	2.0	930	6.4	76
KS06O3A-58-2	12.2	61.5	4.25	4.25	170.4	7.5	3.0	850	5.8	60
KS011327M-2	11.6	61.4	4.00	3.82	171.2	7.7	4.0	950	6.5	75
OK07209	10.5	60.7	4.25	3.47	169.3	7.4	5.0	900	6.1	79
TX05A001822	10.9	61.4	4.50	3.88	170.1	7.5	3.5	950	6.4	82
TX06A001263	10.8	62.2	4.00	3.42	171.0	7.7	3.0	965	6.6	85
TX06A001132	11.0	60.2	3.00	2.64	169.0	7.2	4.0	855	5.7	69
TX06A001281	11.4	62.4	3.13	2.90	171.2	7.4	3.0	970	6.5	80
TX06A001386	10.5	60.3	5.00	4.13	169.2	7.2	2.0	825	5.5	69
TX05V7259	10.8	61.5	7.00	6.00	170.0	7.4	4.0	835	5.6	68

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	Loaf Volume	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
TX05V7269	9.9	61.0	5.38	4.03	169.7	7.2	2.5	855	5.7	79
TX05A001188	11.2	60.8	5.00	4.50	169.7	7.4	5.0	930	6.2	77
BC01138-5	10.9	61.4	4.50	3.89	170.8	7.2	4.0	900	6.1	76
AP06T3621	10.7	61.0	5.50	4.65	169.1	7.4	4.5	880	6.1	75

2010 SRPN Intraregional Production Zone Northern High Plains

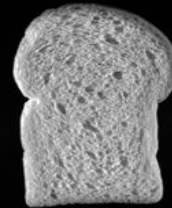
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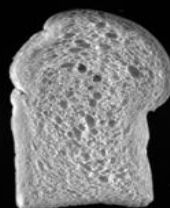
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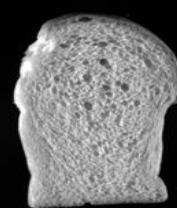
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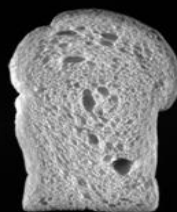
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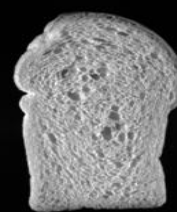
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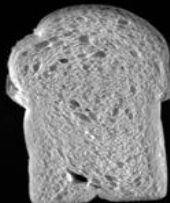
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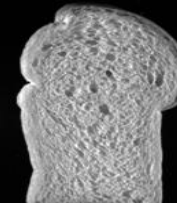
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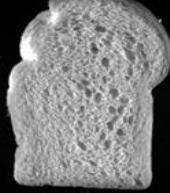


2010 SRPN Intraregional Production Zone Northern High Plains

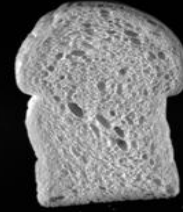
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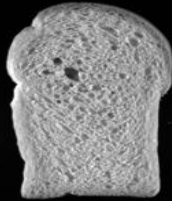
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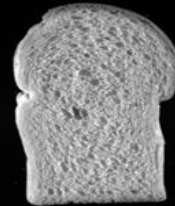
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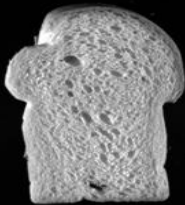
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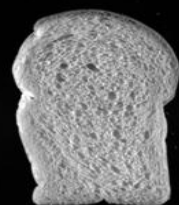
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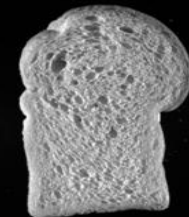
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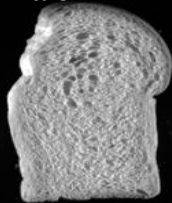
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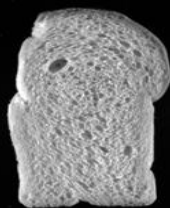
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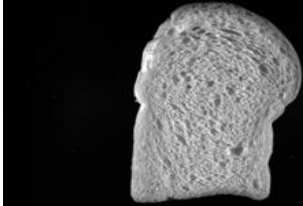


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2010 SRPN Intraregional Production Zone Northern High Plains

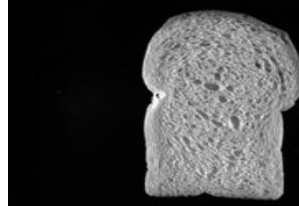
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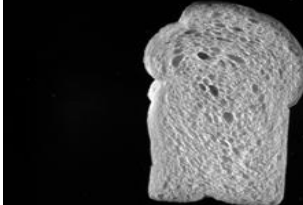
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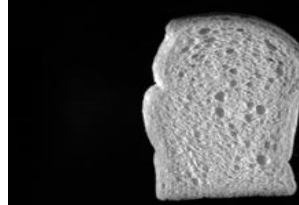
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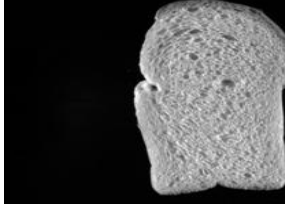
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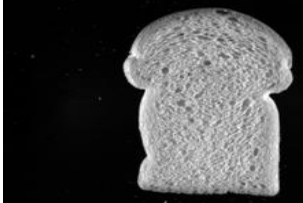
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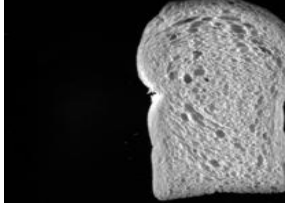
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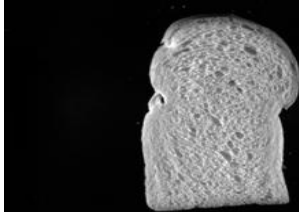


2010 SRPN Intraregional Production Zone Northern High Plains

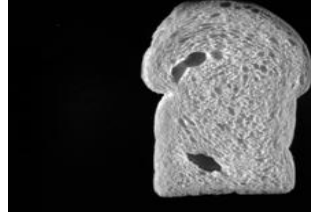
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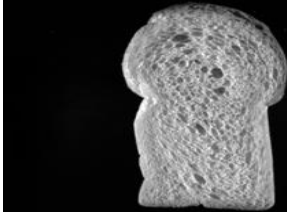
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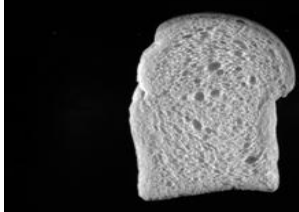
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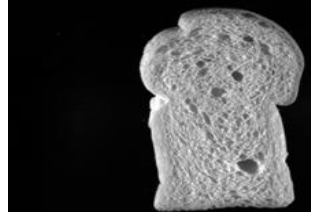
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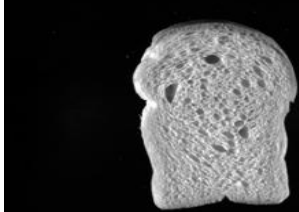
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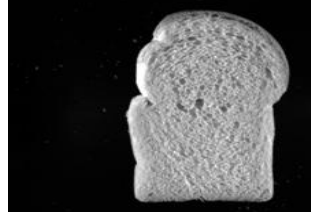
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Hard Winter Wheat Quality Report 2010 SRPN-SCP

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	45.1	Very Poor	73.9	60.3	Very Good	95.1		2,4,8,16,
Scout66	56.6	Average	92.9	54.5	Good	86.0		
TAM 107	50.2	Very Poor	82.3	46.0	Average	72.6	1AL	1,21,
Fuller	57.6	Good	94.5	60.2	Very Good	95.1		
KS07HW52-5	59.8	Very Good	98.1	42.6	Poor	67.3		15,
KS08HW176-4	59.5	Very Good	97.7	58.1	Very Good	91.7		
OK05526	60.3	Very Good	98.9	52.0	Good	82.2		
Garrison	57.8	Good	94.9	55.3	Very Good	87.3		4,
OK05204	57.9	Good	95.1	55.6	Very Good	87.8		16,
OK05511	59.6	Very Good	97.9	39.7	Poor	62.7		
OK07231	60.5	Very Good	99.3	44.3	Average	69.9		
T150-1	50.1	Very Poor	82.3	33.8	Very Poor	53.3		1,14,15,
T166	53.4	Poor	87.6	53.5	Good	84.4	1AL	
T167	48.6	Very Poor	79.8	50.9	Good	80.4		3,5,8,16,
T168	50.5	Very Poor	82.8	38.6	Poor	61.0		8,16,21,
NE06545	49.0	Very Poor	80.4	42.5	Poor	67.1		1,
NE07444	57.4	Good	94.2	50.8	Good	80.2		
NI07703	52.0	Very Poor	85.4	55.0	Very Good	86.8		9,
NI08708	55.9	Average	91.7	55.1	Very Good	87.0		16,
Wolf	56.1	Average	92.1	49.6	Average	78.3		13,16,
BC01131-24	57.4	Good	94.3	63.3	Very Good	100.0		
BC01139-1	53.5	Poor	87.8	51.2	Good	80.8		16,
SY Gold	54.8	Poor	90.0	51.1	Good	80.6		
HV9W06-1046	57.8	Good	94.8	55.9	Very Good	88.2		2,16,
HV9W06-509	56.0	Average	91.9	41.2	Poor	65.0		9,
HV9W06-262	55.5	Average	91.0	30.9	Very Poor	48.8		2,4,15,
HV9W04-1594R	51.8	Very Poor	85.0	44.2	Average	69.8	1BL	1,2,4,6,9,10,21,
CO04393	55.2	Average	90.6	32.2	Very Poor	50.9		14,15,
CO04499	57.8	Good	94.9	43.9	Poor	69.3		
CO050270	51.0	Very Poor	83.7	25.0	Very Poor	39.5		16,18,19,20,

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 2010 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
CO050303-2	55.3	Average	90.7	25.0	Very Poor	39.4		12,16,17,18,19,20,
CO050322	52.9	Very Poor	86.8	43.4	Average	68.5		10,11,13,18,19,
CO050337-2	53.6	Poor	87.9	36.7	Very Poor	58.0		18,
KS010990M-8	56.8	Average	93.1	37.6	Very Poor	59.4		11,
KS06O3A~50-3	54.4	Poor	89.2	48.4	Average	76.5		3,5,13,
KS06O3A~58-2	54.2	Poor	89.0	34.3	Very Poor	54.1		3,5,12,16,17,19,20,21,
KS011327M-2	60.9	Very Good	100.0	54.5	Good	86.0		5,17,
OK07209	60.1	Very Good	98.6	40.7	Poor	64.3		
TX05A001822	56.1	Average	92.1	45.1	Average	71.2		
TX06A001263	57.2	Good	93.9	54.2	Good	85.6	1AL	
TX06A001132	58.7	Good	96.3	28.2	Very Poor	44.5		16,
TX06A001281	53.9	Poor	88.4	37.5	Poor	59.2		8,16,21,
TX06A001386	58.9	Very Good	96.7	46.2	Average	73.0		13,16,17,
TX05V7259	55.1	Poor	90.5	36.5	Very Poor	57.6		8,15,
TX05V7269	54.1	Poor	88.7	40.8	Poor	64.4		
TX05A001188	57.8	Good	94.8	42.7	Poor	67.4		
CJ	59.4	Very Good	97.4	42.5	Average	67.1		
AP06T3621	54.3	Poor	89.0	53.3	Good	84.2		

2010 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	59.3	10.6	0.6	24.0	6.7	2.37	0.26	52 21	MIXED	19--25--21--35--03	
Scout 66	59.4	10.7	0.6	29.0	8.8	2.56	0.32	68 18	HARD	03--06--19--72--01	
TAM-107	57.3	10.6	0.5	28.4	9.0	2.52	0.36	72 18	HARD	02--05--15--78--01	
Fuller	60.5	10.8	0.5	30.2	8.4	2.67	0.31	67 17	HARD	01--11--24--64--01	
KS07HW52-5	61.7	11.1	0.5	32.2	9.1	2.71	0.33	78 18	HARD	00--03--11--86--01	
KS08HW176-4	60.9	10.8	0.5	27.9	8.0	2.49	0.34	81 18	HARD	00--03--07--90--01	
OK05526	60.7	11.5	0.4	33.7	8.8	2.77	0.36	61 16	HARD	03--11--31--55--01	
OK05212	60.5	11.1	0.5	27.4	7.6	2.43	0.32	67 18	HARD	02--08--25--65--01	
OK05204	60.7	11.0	0.4	32.2	9.4	2.71	0.35	70 18	HARD	01--09--17--73--01	
OK05511	60.9	11.1	0.4	32.1	9.0	2.69	0.35	72 17	HARD	00--06--18--76--01	
OK07231	60.4	11.4	0.3	31.4	7.4	2.69	0.29	81 18	HARD	02--02--09--87--01	
T150-1	56.5	11.2	0.4	27.1	7.8	2.52	0.32	80 18	HARD	01--04--07--88--01	
T166	59.1	11.2	0.4	29.2	8.7	2.55	0.34	75 18	HARD	01--04--13--82--01	
T167	58.5	11.1	0.5	31.9	10.0	2.58	0.41	74 17	HARD	01--03--14--82--01	
T168	59.7	11.3	0.4	27.7	8.1	2.50	0.29	72 19	HARD	03--04--19--74--01	
NE06545	57.2	11.3	0.5	27.1	8.1	2.50	0.34	54 19	MIXED	12--24--28--36--03	
NE07444	59.1	11.6	0.5	29.0	8.4	2.57	0.33	70 18	HARD	01--08--18--73--01	
NI07703	58.5	11.6	0.4	30.1	9.6	2.58	0.33	66 18	HARD	04--10--21--65--01	
NI08708	58.7	11.4	0.4	30.5	9.2	2.60	0.33	66 18	HARD	04--08--21--67--01	
BC01007-7	60.2	11.7	0.4	28.4	8.7	2.54	0.34	75 19	HARD	01--03--15--81--01	
BC01131-24	58.8	11.6	0.4	25.2	6.9	2.50	0.31	74 17	HARD	00--05--11--84--01	
BC01139-1	60.0	11.4	0.5	30.7	9.6	2.64	0.35	67 17	HARD	01--08--22--69--01	
00X0100-51	58.4	11.5	0.4	26.9	8.1	2.52	0.31	77 17	HARD	01--02--13--84--01	
HV9W06-1046	60.8	11.2	0.4	24.1	6.3	2.48	0.28	78 18	HARD	00--02--14--84--01	
HV9W06-509	59.5	11.5	0.3	27.4	8.8	2.52	0.35	78 19	HARD	00--03--13--84--01	
HV9W06-262	59.5	11.1	0.5	23.4	6.9	2.36	0.29	72 17	HARD	02--03--17--78--01	
HV9W04-1594R	57.5	11.1	0.4	23.2	7.2	2.37	0.28	91 19	HARD	01--00--04--95--01	
CO04393	59.1	11.0	0.4	29.5	9.0	2.64	0.36	67 18	HARD	04--07--22--67--01	
CO04499	59.8	11.1	0.4	30.5	9.3	2.62	0.36	68 18	HARD	02--08--21--69--01	
CO050270	59.5	10.4	0.6	32.7	9.7	2.65	0.33	62 17	HARD	06--08--32--54--02	
CO050303-2	59.8	10.6	0.4	28.3	8.7	2.49	0.33	67 18	HARD	02--12--20--66--01	
CO050322	59.3	10.7	0.4	26.7	9.1	2.45	0.33	68 19	HARD	03--10--19--68--01	
CO050337-2	59.3	10.9	0.5	28.9	9.0	2.55	0.33	66 17	HARD	03--11--22--64--01	
KS010990M~8	60.0	10.7	0.5	27.3	8.4	2.51	0.35	72 18	HARD	01--05--17--77--01	
KS06O3A~50-3	60.1	10.7	0.5	33.3	11.0	2.71	0.39	68 17	HARD	02--09--17--72--01	
KS06O3A~58-2	60.7	10.6	0.5	32.9	10.1	2.73	0.39	81 17	HARD	00--03--07--90--01	
KS011327M~2	60.4	10.8	0.5	30.2	9.3	2.67	0.38	75 19	HARD	01--04--14--81--01	
OK07209	61.3	11.1	0.4	30.0	9.0	2.66	0.33	62 19	HARD	08--11--22--59--02	
TX05A001822	60.7	10.7	0.5	27.6	7.9	2.55	0.33	70 21	HARD	04--08--19--69--01	
TX06A001263	60.5	11.3	0.5	27.4	8.2	2.56	0.35	80 19	HARD	00--03--12--85--01	
TX06A001132	60.5	11.2	0.4	33.2	9.7	2.69	0.37	66 19	HARD	02--10--23--65--01	
TX06A001281	59.8	11.0	0.4	29.5	8.7	2.60	0.33	73 16	HARD	00--04--18--78--01	
TX06A001386	61.8	10.9	0.4	30.4	8.2	2.65	0.33	82 17	HARD	01--02--06--91--01	
TX05V7259	60.5	11.0	0.4	30.3	8.3	2.67	0.32	75 17	HARD	01--02--16--81--01	
TX05V7269	60.0	11.3	0.4	28.9	8.1	2.55	0.29	64 17	HARD	02--10--29--59--01	

LINE	Wt/Bu (lb)	SKCS Average Kernel						Hardness			
		Moisture		Weight		Diameter		SKCS		Class	Distribution
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)	(sd)			
TX05A001188	59.7	11.1	0.4	28.1	8.8	2.55	0.32	73	19	HARD	02--04--20--74--01
BC01138-5	59.9	10.9	0.5	28.6	8.0	2.59	0.34	69	17	HARD	02--07--19--72--01
AP06T3621	58.2	11.2	0.5	29.0	8.9	2.53	0.35	70	19	HARD	01--07--19--73--01

2010 SRPN Intraregional Production Zone

South 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	14.5	66.8	0.44	13.0	0.582	81.31	-0.96	21.81	-14.19	1.64	2.53
Scout 66	14.0	70.5	0.42	12.6	0.633	80.17	-1.03	23.08	-12.16	1.68	0.81
TAM-107	12.8	67.9	0.40	11.6	0.604	80.70	-1.11	23.97	-13.66	2.10	1.92
Fuller	13.7	69.6	0.44	12.3	0.730	80.13	-1.28	24.86	-14.79	2.13	1.46
KS07HW52-5	13.5	69.9	0.44	12.3	0.674	82.49	-1.16	21.33	-13.00	0.98	5.00
KS08HW176-4	12.9	70.3	0.44	11.3	0.690	82.51	-0.98	19.71	-13.72	1.74	5.64
OK05526	13.0	70.3	0.40	11.6	0.635	82.94	-0.74	18.08	-14.99	1.52	6.50
OK05212	13.0	70.0	0.36	11.9	0.623	82.87	-0.61	17.70	-13.23	0.88	6.06
OK05204	12.5	69.9	0.41	11.0	0.681	82.23	-0.59	21.40	-12.94	1.00	3.75
OK05511	12.5	69.8	0.41	11.0	0.657	82.21	-0.80	20.02	-13.38	1.02	5.07
OK07231	12.7	69.0	0.43	11.2	0.190	83.02	-1.21	21.00	-11.61	1.22	5.14
T150-1	13.1	67.2	0.46	11.7	0.543	81.52	-0.55	19.82	-14.27	1.57	3.15
T166	12.4	68.0	0.41	11.3	0.523	81.47	-0.82	21.21	-12.32	1.31	5.66
T167	12.4	66.3	0.42	11.0	0.612	82.03	-1.19	22.32	-13.34	1.39	4.87
T168	13.0	66.1	0.40	11.4	0.612	80.62	-0.98	21.54	-12.68	1.49	4.55
NE06545	12.1	69.6	0.43	11.0	0.613	81.58	-1.35	23.25	-13.11	2.00	2.95
NE07444	12.5	71.2	0.44	11.0	0.627	81.01	-1.05	22.77	-13.15	1.58	3.81
NI07703	12.6	69.8	0.46	11.7	0.590	79.78	-1.41	26.70	-11.36	2.47	-0.69
NI08708	13.0	70.3	0.41	11.7	0.712	80.44	-0.95	21.70	-12.41	1.51	2.26
BC01007-7	13.1	70.2	0.45	11.6	0.659	80.11	-1.02	22.98	-14.13	1.39	3.82
BC01131-24	13.7	70.3	0.44	12.2	0.593	80.39	-0.61	20.82	-14.25	1.26	5.60
BC01139-1	13.5	67.8	0.40	12.2	0.704	80.78	-1.25	24.47	-12.28	1.35	4.08
00X0100-51	13.0	68.8	0.43	11.4	0.528	80.42	-0.90	22.99	-11.40	0.93	3.49
HV9W06-1046	14.1	68.9	0.43	12.9	0.666	80.02	-1.01	23.30	-12.62	1.10	3.88
HV9W06-509	12.6	71.1	0.48	11.4	0.718	80.08	-0.82	23.24	-13.05	1.31	3.83
HV9W06-262	12.9	69.6	0.44	12.1	0.588	79.55	-1.35	24.68	-10.90	1.41	2.05
HV9W04-1594R	13.9	68.2	0.49	12.4	0.444	81.26	-0.81	22.21	-14.32	1.32	4.52
CO04393	13.5	70.1	0.41	12.0	0.680	80.82	-0.96	22.94	-13.37	1.21	4.68
CO04499	12.8	70.5	0.37	11.3	0.695	81.26	-1.18	22.79	-13.88	1.54	4.97
CO050270	12.9	67.5	0.44	11.3	0.555	81.02	-0.54	20.97	-12.27	0.96	4.10
CO050303-2	12.3	70.0	0.42	11.1	0.657	81.38	-1.21	22.05	-12.51	1.31	5.71
CO050322	12.4	69.8	0.41	9.9	0.637	81.62	-1.42	23.93	-13.78	1.78	3.52
CO050337-2	12.8	69.0	0.42	11.0	0.674	82.29	-1.61	23.89	-11.92	1.36	3.55
KS010990M-8	12.2	70.6	0.42	10.6	0.543	83.18	-1.48	21.74	-13.25	2.05	3.29
KS06O3A-50-3	13.0	69.5	0.44	11.8	0.552	81.78	-1.28	22.98	-13.99	1.81	3.13
KS06O3A-58-2	13.5	67.3	0.46	12.5	0.585	80.95	-0.86	23.92	-14.00	1.96	2.65
KS011327M-2	13.3	72.3	0.41	12.2	0.545	81.28	-0.87	22.14	-13.97	1.65	2.85
OK07209	12.0	71.7	0.37	11.0	0.591	83.01	-1.45	21.22	-14.34	1.19	5.41
TX05A001822	12.9	69.9	0.40	11.8	0.580	81.40	-0.96	22.29	-13.53	0.78	4.12
TX06A001263	12.9	70.0	0.43	11.8	0.697	80.62	-1.03	23.23	-14.11	1.65	2.72
TX06A001132	13.0	71.5	0.43	11.8	0.731	82.55	-1.08	21.25	-14.22	1.44	4.43
TX06A001281	13.2	66.8	0.40	12.1	0.685	81.92	-1.08	21.46	-13.76	1.06	5.28

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
TX06A001386	12.6	67.1	0.37	11.2	0.550	82.92	-0.82	19.04	-12.81	1.00	6.26
TX05V7259	13.4	66.5	0.39	12.0	0.671	81.30	-1.19	22.05	-12.62	1.65	2.62
TX05V7269	11.7	67.8	0.41	11.1	0.701	81.28	-1.40	24.01	-11.97	1.15	2.04
TX05A001188	13.4	71.1	0.41	12.3	0.662	81.25	-0.56	21.14	-15.13	2.05	2.08
BC01138-5	12.8	70.8	0.40	11.7	0.588	80.42	-1.11	22.89	-14.41	1.72	2.96
AP06T3621	12.5	70.4	0.43	11.4	0.738	81.80	-1.32	21.65	-14.90	2.17	3.64

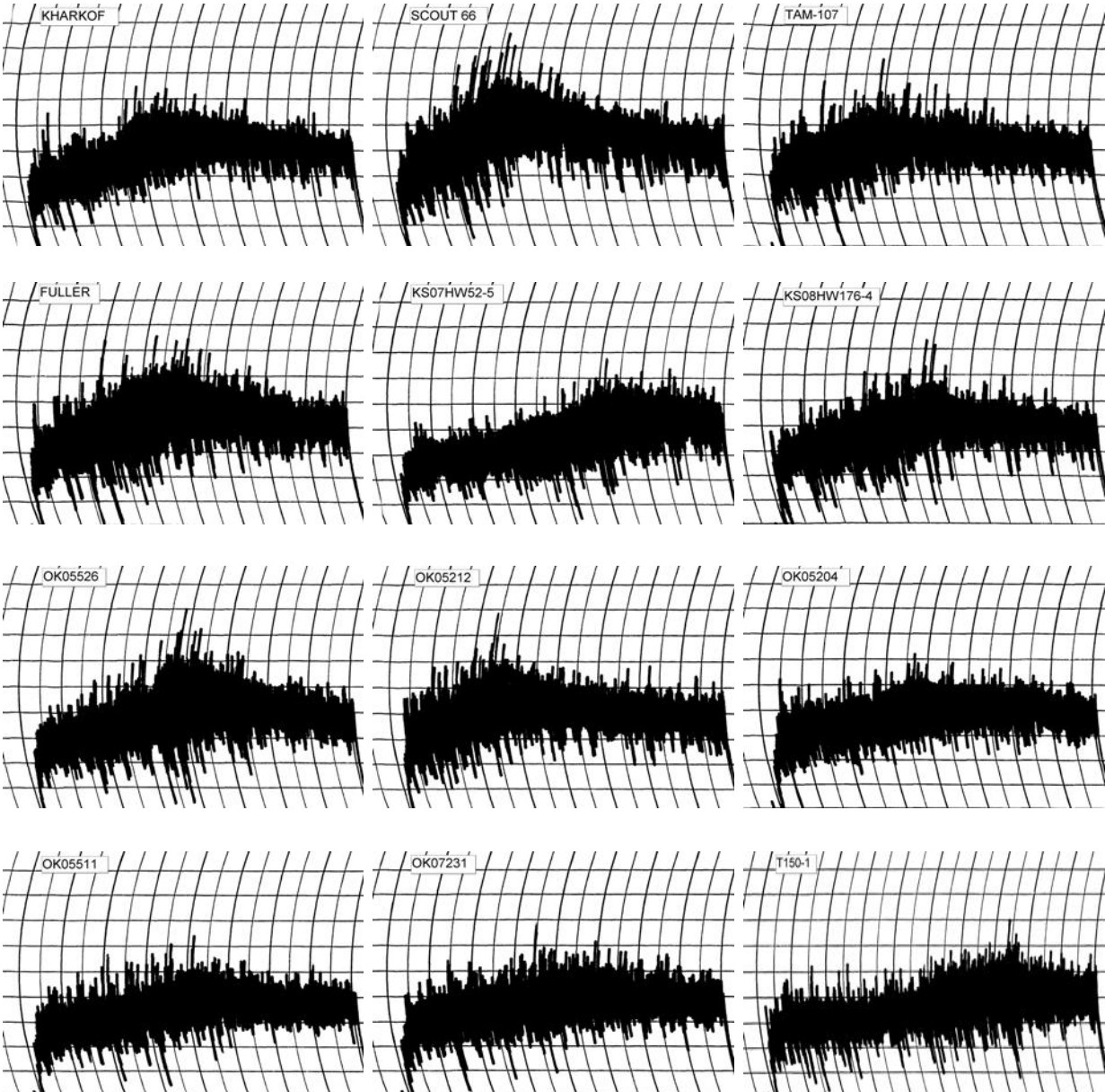
2010 SRPN Intraregional Production Zone

South Central Plains

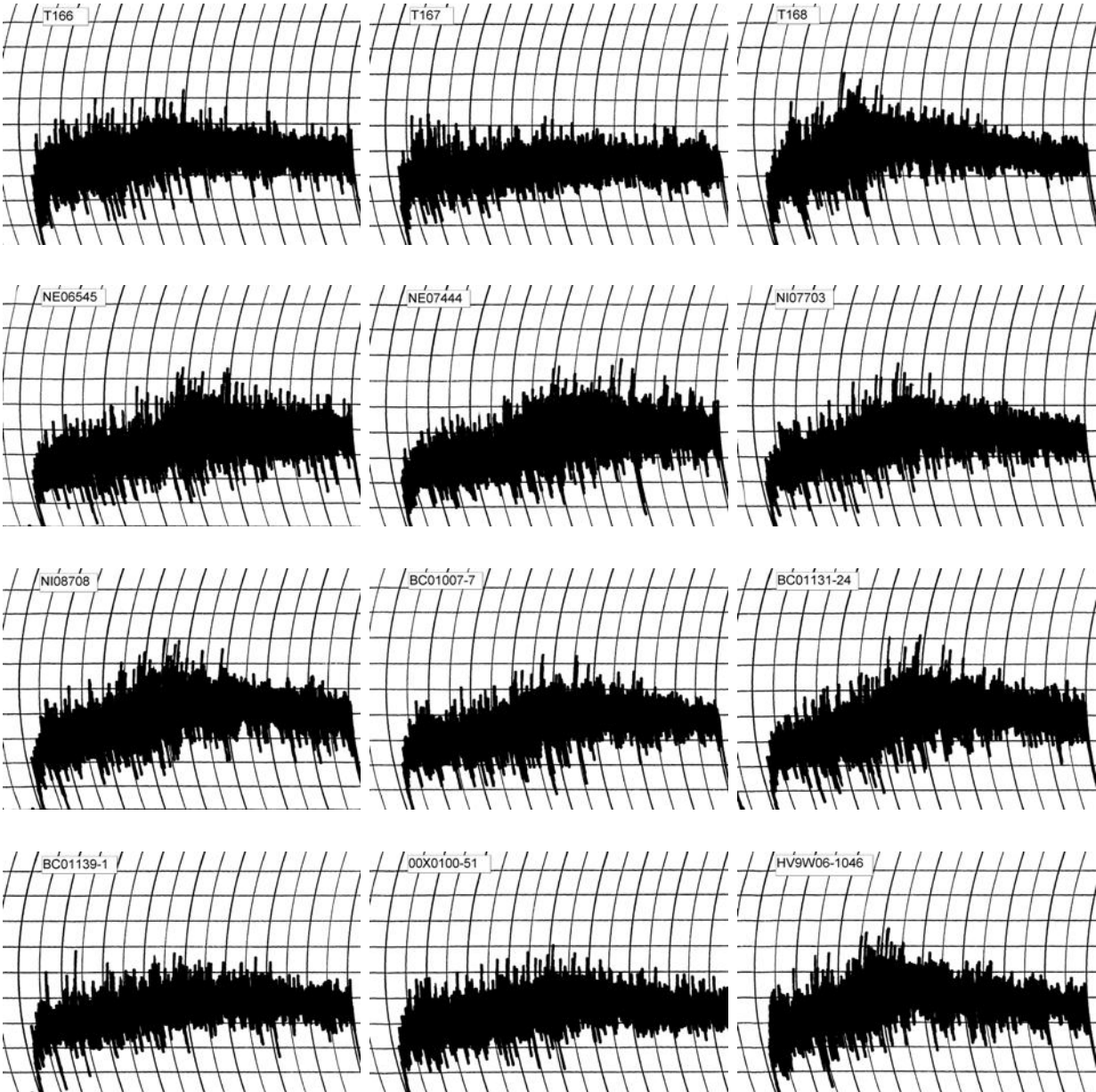
	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	13.0	62.6	3.50	3.50	2
Scout 66	12.6	63.9	2.50	2.50	3
TAM-107	11.6	62.2	3.00	2.85	3
Fuller	12.3	63.5	3.88	3.88	4
KS07HW52-5	12.3	65.0	5.50	5.50	4
KS08HW176-4	11.3	62.3	4.00	3.68	3
OK05526	11.6	62.7	4.00	3.81	4
OK05212	11.9	63.2	2.63	2.59	4
OK05204	11.0	60.8	3.88	3.42	2
OK05511	11.0	61.2	4.38	3.85	3
OK07231	11.2	61.7	4.00	3.63	4
T150-1	11.7	62.5	7.50	7.27	4
T166	11.3	61.7	3.63	3.30	3
T167	11.0	61.3	3.63	3.21	2
T168	11.4	60.9	2.50	2.31	2
NE06545	11.0	60.7	4.63	4.05	4
NE07444	11.0	61.3	4.88	4.32	5
NI07703	11.7	62.0	3.75	3.62	3
NI08708	11.7	62.4	3.75	3.61	2
BC01007-7	11.6	59.7	4.13	3.92	2
BC01131-24	12.2	63.3	3.88	3.88	4
BC01139-1	12.2	62.2	3.88	3.88	2
00X0100-51	11.4	61.9	4.38	4.07	4
HV9W06-1046	12.9	64.4	3.00	3.00	2
HV9W06-509	11.4	61.9	4.00	3.72	5
HV9W06-262	12.1	62.1	5.38	5.38	4
HV9W04-1594R	12.4	62.6	4.50	4.50	3
CO04393	12.0	63.0	5.75	5.75	4
CO04499	11.3	61.9	4.38	4.03	4
CO050270	11.3	61.8	2.88	2.65	2
CO050303-2	11.1	61.5	3.13	2.80	2
CO050322	9.9	60.4	3.38	2.53	4
CO050337-2	11.0	61.3	3.75	3.31	4
KS010990M~8	10.6	61.2	4.50	3.76	4
KS06O3A~50-3	11.8	60.0	3.75	3.64	3
KS06O3A~58-2	12.5	61.8	3.38	3.38	2
KS011327M~2	12.2	61.3	5.00	5.00	4
OK07209	11.0	61.3	4.00	3.52	4
TX05A001822	11.8	62.7	4.38	4.30	4
TX06A001263	11.8	62.6	3.88	3.78	4
TX06A001132	11.8	62.6	2.50	2.44	1
TX06A001281	12.1	63.2	3.00	3.00	2

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
TX06A001386	11.2	60.2	4.38	3.98	2
TX05V7259	12.0	63.9	5.38	5.37	4
TX05V7269	11.1	62.5	3.58	3.21	3
TX05A001188	12.3	63.6	4.00	4.00	4
BC01138-5	11.7	62.5	3.38	3.27	3
AP06T3621	11.4	62.0	4.88	4.56	4

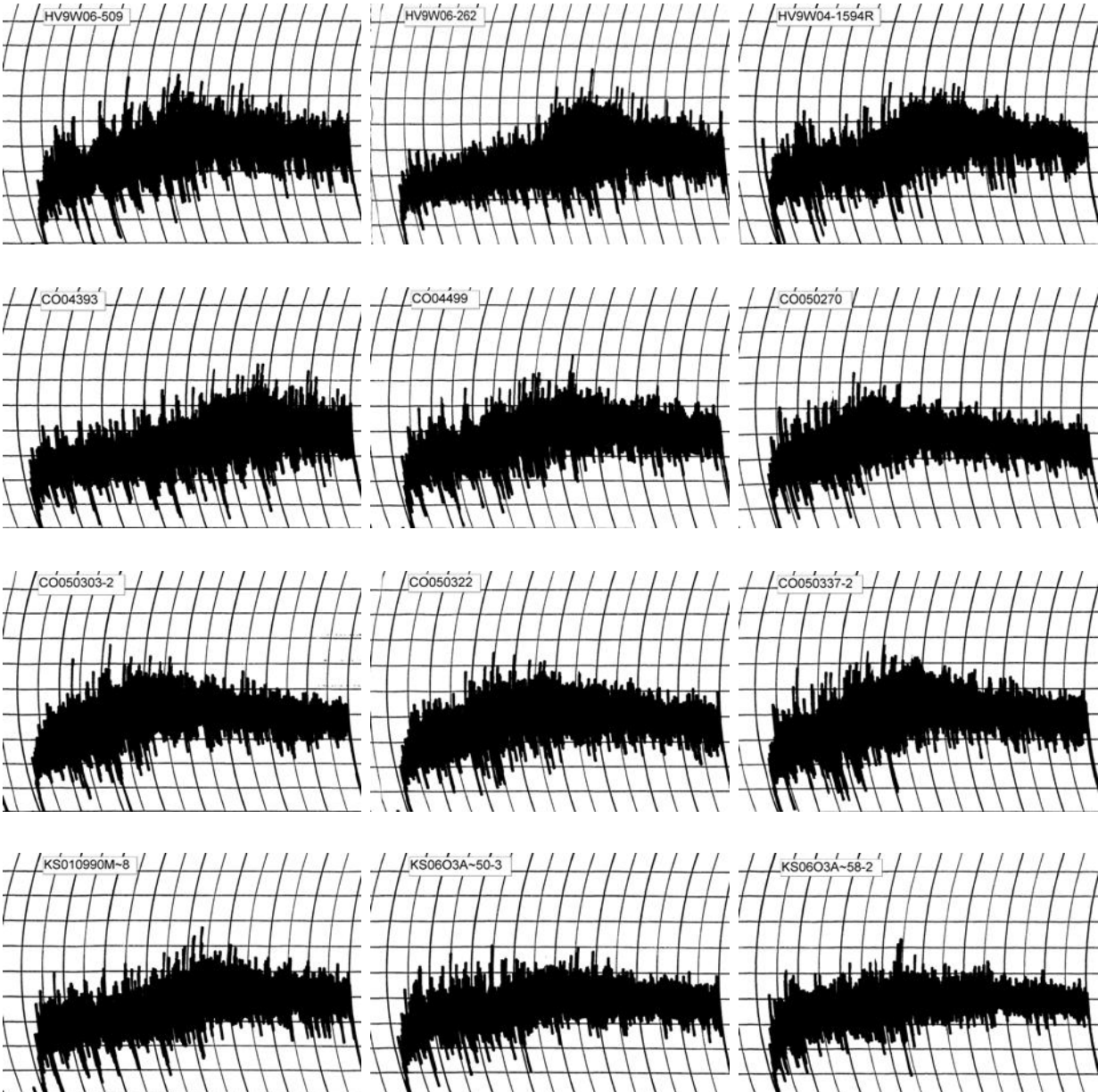
2010 SRPN Intraregional Production Zone South Central Plains



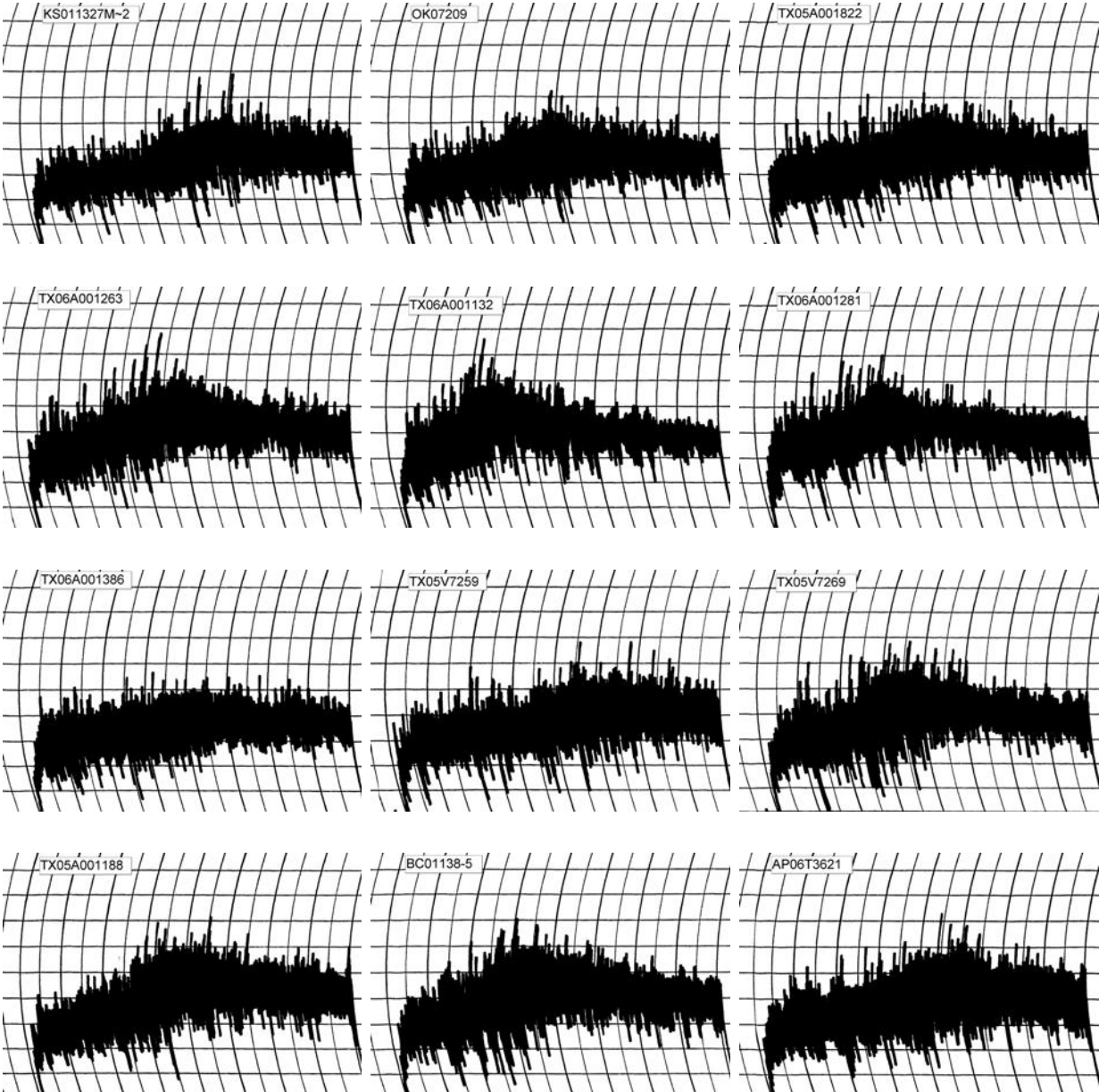
2010 SRPN Intraregional Production Zone South Central Plains



2010 SRPN Intraregional Production Zone South Central Plains



2010 SRPN Intraregional Production Zone South Central Plains



2010 SRPN Intraregional Production Zone

South Central Plains

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	148.00	239.50	171.67	67.83	279.92	108.25	6.47	85.60
Scout 66	108.00	220.17	147.33	72.83	261.17	113.83	6.20	67.70
TAM-107	121.00	261.83	181.50	80.33	306.50	125.00	6.40	67.70
Fuller	133.42	220.17	159.33	60.83	284.67	125.33	6.27	67.70
KS07HW52-5	112.58	263.33	144.50	118.83	241.50	97.00	6.20	67.85
KS08HW176-4	104.58	260.25	142.75	117.50	244.67	101.92	6.20	67.80
OK05526	120.33	233.50	157.08	76.42	280.08	123.00	6.20	67.75
OK05212	126.17	236.42	158.58	77.83	277.42	118.83	6.27	67.70
OK05204	104.17	235.50	148.25	87.25	258.58	110.33	6.13	67.65
OK05511	114.75	233.00	145.75	87.25	257.33	111.58	6.13	67.75
OK07231	125.50	206.75	142.75	64.00	260.67	117.92	6.20	67.05
T150-1	113.08	257.00	162.25	94.75	273.75	111.50	6.33	68.60
T166	110.75	242.17	162.83	79.33	283.83	121.00	6.33	67.80
T167	131.92	263.92	179.92	84.00	304.08	124.17	6.40	68.55
T168	112.67	247.75	163.25	84.50	282.42	119.17	6.27	68.55
NE06545	98.00	247.42	160.08	87.33	281.42	121.33	6.07	67.80
NE07444	112.67	205.67	138.33	67.33	256.00	117.67	6.07	67.80
NI07703	108.42	213.25	134.00	79.25	245.75	111.75	6.13	67.80
NI08708	122.50	211.17	146.67	64.50	267.75	121.08	6.20	67.75
BC01007-7	117.33	192.92	131.42	61.50	248.83	117.42	6.07	67.70
BC01131-24	110.92	252.83	143.42	109.42	244.58	101.17	6.20	68.60
BC01139-1	124.00	198.33	130.50	67.83	239.75	109.25	6.13	67.00
00X0100-51	125.75	211.67	147.83	63.83	273.58	125.75	6.13	67.80
HV9W06-1046	125.17	228.17	155.83	72.33	275.58	119.75	6.27	68.65
HV9W06-509	122.25	218.83	147.50	71.33	268.00	120.50	6.20	67.70
HV9W06-262	115.42	232.50	165.67	66.83	295.00	129.33	6.27	66.95
HV9W04-1594R	133.25	207.08	144.25	62.83	257.83	113.58	6.27	67.75
CO04393	121.08	263.58	162.00	101.58	269.83	107.83	6.27	68.55
CO04499	119.08	250.25	156.50	93.75	264.25	107.75	6.33	67.75
CO050270	106.67	204.17	138.58	65.58	261.83	123.25	6.07	67.75
CO050303-2	134.92	219.17	156.92	62.25	277.25	120.33	6.33	67.80
CO050322	109.67	209.50	141.67	67.83	265.17	123.50	6.13	68.50
CO050337-2	119.92	213.83	143.08	70.75	266.00	122.92	6.13	68.65
KS010990M-8	116.50	210.42	137.75	72.67	251.92	114.17	6.13	67.70
KS06O3A-50-3	127.42	220.33	153.25	67.08	267.50	114.25	6.33	67.75
KS06O3A-58-2	128.50	227.75	161.50	66.25	279.00	117.50	6.40	67.70
KS011327M-2	126.67	215.83	150.83	65.00	262.83	112.00	6.33	67.80
OK07209	120.00	235.33	165.58	69.75	293.92	128.33	6.20	68.60
TX05A001822	128.33	238.08	168.83	69.25	287.50	118.67	6.33	67.80
TX06A001263	133.75	257.75	163.58	94.17	271.25	107.67	6.33	67.70
TX06A001132	107.25	216.25	148.92	67.33	271.75	122.83	6.13	67.00
TX06A001281	112.75	248.83	135.17	113.67	234.50	99.33	6.27	69.35
TX06A001386	112.83	246.58	146.67	99.92	242.75	96.08	6.33	66.95
TX05V7259	151.25	230.50	175.08	55.42	293.92	118.83	6.47	67.70
TX05V7269	117.17	222.58	154.08	68.50	281.75	127.67	6.13	68.55
TX05A001188	123.67	228.08	151.75	76.33	265.50	113.75	6.27	68.50

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)
BC01138-5	128.58	240.92	154.08	86.83	264.83	110.75	6.27	66.85
AP06T3621	133.58	223.58	145.33	78.25	257.67	112.33	6.13	67.80

2010 SRPN Intraregional Production Zone

South Central Plains

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	Loaf Volume	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	13.0	63.1	4.63	4.63	171.8	7.5	4.0	965	6.4	67
Scout 66	12.6	63.9	3.25	3.25	173.0	7.5	4.0	950	6.3	68
TAM-107	11.6	62.4	4.00	3.80	171.2	7.3	2.0	955	6.4	76
Fuller	12.3	61.5	5.00	5.00	170.2	7.4	4.0	925	6.3	67
KS07HW52-5	12.3	63.6	6.50	6.50	172.3	7.3	3.5	1000	6.7	75
KS08HW176-4	11.3	62.2	5.50	5.06	170.7	7.3	4.0	950	6.5	78
OK05526	11.6	63.1	5.50	5.23	171.8	7.0	3.0	900	6.1	70
OK05212	11.9	62.2	3.75	3.69	170.8	7.2	4.0	950	6.5	73
OK05204	11.0	62.2	4.50	3.96	171.1	7.1	4.0	925	6.3	78
OK05511	11.0	61.2	5.00	4.39	170.6	7.0	3.5	910	6.2	76
OK07231	11.2	62.1	7.00	6.34	170.2	7.2	3.0	870	6.0	69
T150-1	11.7	62.5	8.63	8.36	170.2	7.4	2.5	975	6.6	77
T166	11.3	61.8	4.00	3.64	171.1	7.2	4.0	900	6.0	72
T167	11.0	61.1	4.88	4.32	169.7	7.3	3.0	920	6.3	77
T168	11.4	61.0	3.50	3.24	170.4	7.0	2.0	925	6.3	74
NE06545	11.0	61.2	6.25	5.47	169.9	7.1	3.0	850	5.8	69
NE07444	11.0	61.6	6.75	5.97	170.6	7.4	4.0	910	6.0	75
NI07703	11.7	62.0	4.00	3.86	171.2	7.2	4.0	910	6.1	70
NI08708	11.7	62.3	4.75	4.57	171.1	7.2	4.0	885	5.9	67
BC01007-7	11.6	61.0	5.25	4.99	170.2	7.5	3.0	930	6.2	73
BC01131-24	12.2	63.0	5.88	5.88	172.1	7.7	4.0	1010	6.8	77
BC01139-1	12.2	62.1	5.00	5.00	171.3	7.3	3.0	900	6.0	65
00X0100-51	11.4	61.1	5.50	5.11	170.1	7.1	4.0	850	5.7	65
HV9W06-1046	12.9	63.1	3.75	3.75	171.7	7.3	4.0	950	6.3	66
HV9W06-509	11.4	62.0	4.38	4.07	170.9	7.2	3.5	885	6.0	69
HV9W06-262	12.1	62.2	7.13	7.13	170.6	7.6	2.5	865	5.9	62
HV9W04-1594R	12.4	62.0	5.25	5.25	170.6	7.3	2.0	885	6.0	62
CO04393	12.0	62.2	7.50	7.50	170.3	7.2	3.5	925	6.3	69
CO04499	11.3	62.2	5.00	4.60	171.4	7.2	3.5	940	6.4	77
CO050270	11.3	60.7	2.75	2.53	170.0	6.7	2.5	800	5.4	60
CO050303-2	11.1	59.8	3.00	2.69	168.8	6.7	2.5	795	5.4	61
CO050322	9.9	61.0	4.00	2.99	170.4	6.9	3.0	830	5.6	75
CO050337-2	11.0	61.0	4.25	3.75	170.3	6.9	3.5	850	5.7	68
KS010990M-8	10.6	61.2	5.75	4.81	170.5	7.2	3.5	900	6.0	78
KS06O3A-50-3	11.8	60.8	4.25	4.13	170.0	7.4	3.0	895	6.1	68
KS06O3A-58-2	12.5	59.1	4.25	4.25	167.8	7.0	2.0	790	5.4	51
KS011327M-2	12.2	59.9	5.50	5.50	169.0	7.2	4.0	935	6.4	69
OK07209	11.0	62.4	5.25	4.62	171.1	7.1	4.5	890	5.9	73
TX05A001822	11.8	63.0	5.13	5.04	172.0	7.4	4.5	950	6.4	73
TX06A001263	11.8	62.7	4.50	4.39	171.5	7.4	3.0	935	6.3	72
TX06A001132	11.8	61.5	2.75	2.69	170.9	7.2	2.5	865	5.7	64
TX06A001281	12.1	61.6	3.25	3.25	170.9	7.2	1.8	965	6.5	73
TX06A001386	11.2	61.9	5.75	5.23	168.6	7.0	3.0	875	5.9	69
TX05V7259	12.0	64.5	6.75	6.74	173.0	7.4	4.5	900	5.9	67

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	Loaf Volume	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
TX05V7269	11.1	63.7	4.50	4.03	173.1	7.2	3.5	885	5.9	72
TX05A001188	12.3	64.5	5.75	5.75	173.6	7.0	4.5	900	5.9	64
BC01138-5	11.7	61.5	4.75	4.60	170.3	7.5	3.5	935	6.4	73
AP06T3621	11.4	63.8	6.00	5.60	172.8	7.4	4.0	900	6.0	71

2010 SRPN Intraregional Production Zone South Central Plains

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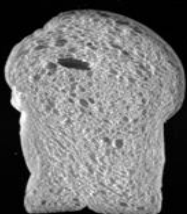
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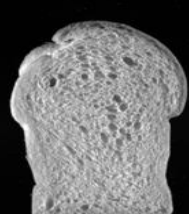
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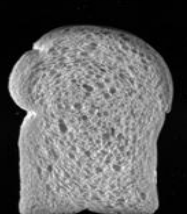
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2010 SRPN Intraregional Production Zone South Central Plains

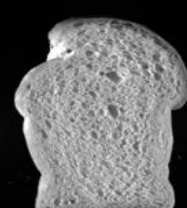
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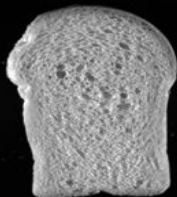
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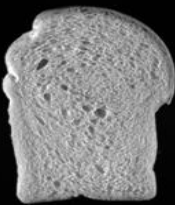
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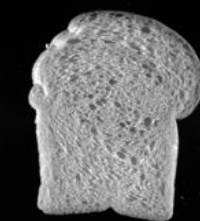
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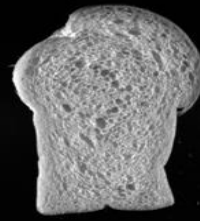
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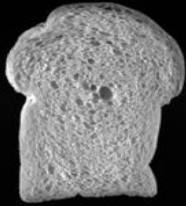


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2010 SRPN Intraregional Production Zone South Central Plains

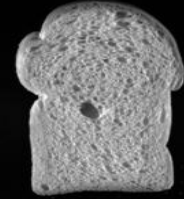
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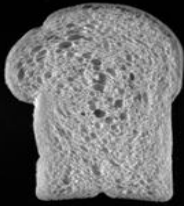
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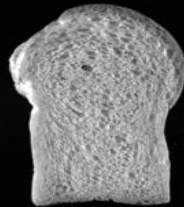
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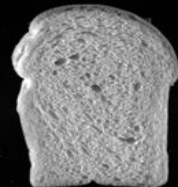
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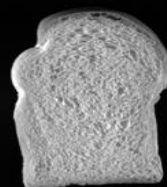
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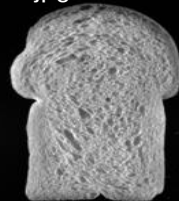
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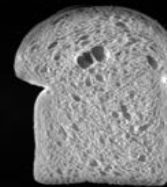
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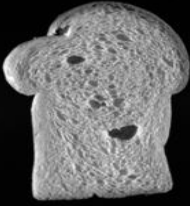


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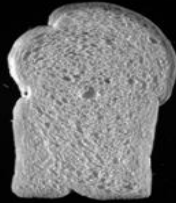


2010 SRPN Intraregional Production Zone South Central Plains

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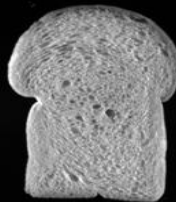
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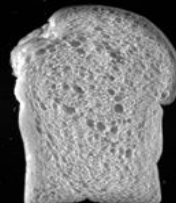
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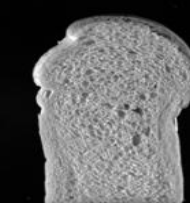
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Hard Winter Wheat Quality Report 2010 SRPN-SHP

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	41.3	Very Poor	63.1	46.0	Average	65.6		2,4,8,9,10,16,20,
Scout66	57.4	Average	87.7	38.0	Poor	54.1		16,
TAM 107	58.2	Average	89.0	38.9	Poor	55.4	1AL	13,16,
Fuller	55.8	Poor	85.3	49.5	Average	70.5		
KS07HW52-5	65.4	Very Good	100.0	45.8	Poor	65.3		
KS08HW176-4	63.1	Very Good	96.4	32.4	Very Poor	46.2		6,9,10,16,
OK05526	57.7	Average	88.2	51.9	Good	74.0		16,
Garrison	59.5	Good	91.0	55.3	Good	78.8		4,15,16,
OK05204	62.0	Very Good	94.9	58.6	Very Good	83.6		16,
OK05511	57.0	Poor	87.2	56.5	Good	80.6		16,
OK07231	60.2	Good	92.1	67.3	Very Good	95.9		
T150-1	51.9	Very Poor	79.4	45.5	Poor	64.8		1,14,15,
T166	58.9	Good	90.1	43.0	Poor	61.4	1AL	15,16,
T167	57.9	Average	88.6	40.4	Poor	57.5		5,
T168	56.5	Poor	86.4	45.3	Average	64.6		16,
NE06545	49.1	Very Poor	75.1	59.4	Good	84.7		1,
NE07444	54.4	Very Poor	83.2	59.9	Good	85.3		1,
NI07703	57.2	Poor	87.5	55.6	Good	79.2		16,
NI08708	58.9	Good	90.0	46.6	Average	66.4		16,
Wolf	59.6	Good	91.2	36.0	Very Poor	51.4		16,17,
BC01131-24	57.4	Average	87.9	61.1	Very Good	87.0		2,16,
BC01139-1	52.4	Very Poor	80.1	35.2	Very Poor	50.1		16,
SY Gold	56.4	Poor	86.2	33.8	Very Poor	48.1		18,19,
HV9W06-1046	64.1	Very Good	98.0	38.3	Poor	54.7		2,16,
HV9W06-509	59.2	Good	90.6	45.7	Average	65.1		16,
HV9W06-262	55.4	Poor	84.7	46.9	Average	66.9		2,4,
HV9W04-1594R	59.1	Good	90.4	44.4	Average	63.3	1BL	9,16,
CO04393	63.8	Very Good	97.7	62.4	Very Good	88.9		
CO04499	62.2	Very Good	95.1	54.8	Good	78.1		
CO050270	54.4	Very Poor	83.2	23.7	Very Poor	33.7		3,11,16,18,19,21,

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 2010 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
CO050303-2	60.2	Good	92.1	29.5	Very Poor	42.1		16,18,19,
CO050322	58.8	Average	89.9	47.9	Average	68.3		16,18,
CO050337-2	59.0	Good	90.2	33.3	Very Poor	47.4		16,
KS010990M-8	54.8	Very Poor	83.8	58.1	Good	82.8		10,16,
KS06O3A~50-3	57.1	Poor	87.3	31.7	Very Poor	45.2		3,12,13,16,17,
KS06O3A~58-2	55.2	Poor	84.5	31.8	Very Poor	45.3		5,16,18,19,20,21,
KS011327M-2	58.5	Average	89.4	51.7	Good	73.7		5,16,
OK07209	60.1	Good	91.9	63.1	Very Good	89.9		
TX05A001822	57.3	Average	87.6	60.7	Very Good	86.6		16,
TX06A001263	56.5	Poor	86.4	41.9	Poor	59.7	1AL	16,
TX06A001132	61.1	Very Good	93.5	46.4	Average	66.2		16,
TX06A001281	52.9	Very Poor	80.9	32.8	Very Poor	46.8		8,16,
TX06A001386	63.9	Very Good	97.7	53.7	Good	76.5		
TX05V7259	55.9	Poor	85.5	61.6	Very Good	87.8		
TX05V7269	54.2	Very Poor	82.9	43.3	Poor	61.7		8,
TX05A001188	58.6	Average	89.7	70.2	Very Good	100.0		
CJ	62.6	Very Good	95.8	65.6	Very Good	93.4		
AP06T3621	53.8	Very Poor	82.2	42.9	Poor	61.1		

2010 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)				
								(sd)			
Kharkof	59.1	11.2	0.6	23.6	7.3	2.31	0.26	52 22	MIXED	19--19--25--37--03	
Scout 66	59.6	11.3	0.6	29.6	9.6	2.53	0.35	68 19	HARD	03--09--16--72--01	
TAM-107	58.9	10.9	0.7	30.9	8.2	2.59	0.34	72 16	HARD	01--04--12--83--01	
Fuller	60.1	11.1	0.6	30.3	8.1	2.64	0.32	69 17	HARD	01--08--19--72--01	
KS07HW52-5	62.7	11.4	0.6	30.4	8.7	2.60	0.35	82 16	HARD	00--02--04--94--01	
KS08HW176-4	61.3	11.4	0.6	27.0	7.2	2.47	0.32	85 16	HARD	00--02--03--95--01	
OK05526	60.1	11.5	0.6	32.4	9.2	2.68	0.35	63 18	HARD	04--12--25--59--01	
OK05212	60.7	11.1	0.5	28.0	7.1	2.42	0.29	66 17	HARD	03--09--24--64--01	
OK05204	60.8	11.1	0.5	32.1	8.1	2.66	0.33	70 18	HARD	02--04--17--77--01	
OK05511	60.6	11.0	0.6	31.2	8.9	2.60	0.36	70 20	HARD	04--08--16--72--01	
OK07231	59.9	11.1	0.5	30.1	8.3	2.62	0.33	82 16	HARD	00--02--07--91--01	
T150-1	57.0	11.1	0.5	28.9	8.9	2.57	0.33	70 16	HARD	01--07--15--77--01	
T166	59.7	11.1	0.6	30.8	8.4	2.54	0.35	71 15	HARD	01--05--15--79--01	
T167	58.9	11.2	0.6	32.2	9.4	2.57	0.37	80 15	HARD	00--01--06--93--01	
T168	60.6	11.1	0.7	27.9	7.3	2.48	0.31	68 16	HARD	00--09--22--69--01	
NE06545	57.3	11.5	0.6	28.6	8.2	2.55	0.35	53 23	MIXED	23--16--22--39--03	
NE07444	58.4	11.3	0.6	28.3	8.7	2.52	0.33	65 18	HARD	04--11--20--65--01	
NI07703	59.3	11.6	0.5	30.1	9.2	2.53	0.32	63 19	HARD	06--12--23--59--02	
NI08708	59.3	11.2	0.6	29.2	8.3	2.51	0.28	66 18	HARD	03--10--22--65--01	
BC01007-7	60.7	11.8	0.5	29.0	8.4	2.52	0.33	74 17	HARD	00--04--15--81--01	
BC01131-24	58.8	11.2	0.6	24.7	6.2	2.43	0.28	70 18	HARD	02--08--15--75--01	
BC01139-1	59.2	11.0	0.6	31.3	9.3	2.63	0.33	63 19	HARD	06--12--23--59--02	
00X0100-51	59.6	11.3	0.5	26.9	8.3	2.48	0.30	80 18	HARD	01--02--09--88--01	
HV9W06-1046	61.6	11.4	0.5	24.7	6.2	2.43	0.25	75 16	HARD	00--04--10--86--01	
HV9W06-509	60.1	11.3	0.5	29.7	9.2	2.57	0.35	72 19	HARD	03--09--13--75--01	
HV9W06-262	59.3	11.0	0.7	23.4	7.2	2.35	0.28	70 17	HARD	02--07--17--74--01	
HV9W04-1594R	60.3	11.3	0.6	27.0	7.3	2.50	0.32	83 17	HARD	00--03--06--91--01	
CO04393	60.4	11.1	0.5	31.7	8.2	2.68	0.35	63 15	HARD	04--07--27--62--01	
CO04499	60.3	11.0	0.6	30.4	8.1	2.57	0.33	68 16	HARD	01--07--22--70--01	
CO050270	59.7	11.6	0.5	33.6	11.1	2.59	0.35	60 19	HARD	09--14--25--52--02	
CO050303-2	60.9	11.4	0.5	31.5	8.8	2.56	0.33	66 17	HARD	03--13--17--67--01	
CO050322	60.4	11.3	0.6	28.5	9.0	2.49	0.35	67 18	HARD	03--08--22--67--01	
CO050337-2	60.0	11.3	0.5	30.0	8.7	2.54	0.34	65 17	HARD	05--09--20--66--01	
KS010990M~8	59.1	11.0	0.5	28.2	8.3	2.50	0.33	71 19	HARD	03--05--16--76--01	
KS06O3A~50-3	60.2	11.3	0.5	34.9	10.0	2.68	0.36	63 18	HARD	04--14--27--55--01	
KS06O3A~58-2	60.0	11.2	0.5	33.1	9.7	2.65	0.37	76 18	HARD	01--03--11--85--01	
KS011327M~2	60.4	11.2	0.6	31.6	9.1	2.67	0.38	70 19	HARD	04--08--15--73--01	
OK07209	61.2	11.2	0.5	29.2	8.4	2.57	0.32	65 17	HARD	03--13--22--62--01	
TX05A001822	60.0	11.2	0.6	27.7	7.5	2.51	0.33	66 20	HARD	05--11--21--63--01	
TX06A001263	59.9	9.9	0.7	27.6	8.3	2.51	0.33	72 18	HARD	01--06--17--76--01	
TX06A001132	60.6	10.4	0.4	31.3	9.0	2.58	0.34	65 17	HARD	02--10--22--66--01	
TX06A001281	59.5	9.9	0.8	29.4	8.0	2.56	0.33	69 17	HARD	01--09--20--70--01	
TX06A001386	61.5	10.0	0.6	29.9	7.4	2.58	0.31	80 16	HARD	01--02--07--90--01	
TX05V7259	60.3	9.8	0.7	29.5	8.6	2.61	0.33	72 17	HARD	01--04--14--81--01	
TX05V7269	60.2	10.4	0.5	29.3	8.1	2.50	0.32	64 17	HARD	05--08--23--64--01	

LINE	Wt/Bu (lb)	SKCS Average Kernel						Hardness			
		Moisture		Weight		Diameter		SKCS		Class	Distribution
		(%)	(sd)	(mg)	(sd)	(mm)	(sd)	(sd)			
TX05A001188	60.6	10.1	0.6	28.0	9.1	2.48	0.33	66	20	HARD	05--11--20--64--01
BC01138-5	60.2	10.0	0.7	28.0	7.2	2.57	0.30	71	18	HARD	02--08--18--72--01
AP06T3621	59.3	10.1	0.6	29.2	9.0	2.51	0.35	73	21	HARD	02--09--16--73--01

2010 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	15.9	66.0	0.48	14.0	0.540	80.69	-1.46	22.84	-14.54	2.73	-0.41
Scout 66	14.5	72.5	0.45	13.2	0.511	81.04	-1.04	20.32	-14.57	1.74	3.40
TAM-107	13.6	69.9	0.44	11.8	0.553	79.06	-1.22	24.67	-13.19	2.00	2.32
Fuller	14.9	68.2	0.42	13.0	0.721	81.95	-1.60	21.61	-15.83	2.00	2.89
KS07HW52-5	13.7	72.2	0.46	12.0	0.639	82.17	-2.23	24.65	-13.24	2.01	3.01
KS08HW176-4	14.0	71.5	0.49	12.1	0.677	81.73	-1.61	22.81	-14.51	1.90	3.75
OK05526	14.7	70.5	0.39	12.9	0.490	80.05	-1.16	23.67	-15.59	2.07	1.23
OK05212	14.7	70.0	0.38	13.3	0.492	80.86	-1.27	21.77	-15.95	1.53	1.69
OK05204	14.2	71.0	0.41	12.3	0.617	81.10	-1.09	19.84	-14.74	1.50	4.74
OK05511	13.7	70.3	0.41	11.9	0.623	80.87	-1.29	22.20	-11.94	1.53	2.20
OK07231	13.9	69.4	0.41	12.3	0.165	81.20	-1.14	21.81	-12.42	1.65	4.56
T150-1	14.8	68.7	0.45	13.0	0.520	80.14	-0.80	20.51	-16.11	1.79	2.78
T166	13.1	70.2	0.44	11.8	0.537	78.67	-0.90	24.32	-12.79	2.30	0.98
T167	13.9	69.3	0.42	12.2	0.538	79.31	-1.28	24.65	-14.38	2.46	2.30
T168	13.8	68.4	0.41	11.8	0.578	79.23	-0.90	23.39	-12.58	2.23	1.05
NE06545	13.6	70.9	0.43	12.0	0.573	80.08	-1.59	24.83	-13.94	2.38	0.70
NE07444	13.8	71.3	0.46	12.3	0.611	79.47	-1.24	23.97	-13.01	1.69	1.80
NI07703	13.7	72.3	0.43	12.2	0.580	82.31	-1.56	22.08	-15.05	2.08	3.80
NI08708	14.8	71.4	0.41	13.1	0.718	80.68	-0.79	19.40	-16.57	2.09	2.85
BC01007-7	14.0	71.1	0.45	12.5	0.728	78.29	-1.31	24.73	-14.94	1.99	1.44
BC01131-24	14.7	70.4	0.43	12.9	0.588	77.56	-0.98	23.89	-13.40	2.36	1.13
BC01139-1	14.4	68.2	0.39	12.6	0.672	79.29	-1.28	24.61	-13.73	1.77	0.80
00X0100-51	14.4	69.2	0.41	12.2	0.474	79.35	-1.07	24.29	-13.68	1.81	2.27
HV9W06-1046	15.0	71.0	0.41	13.3	0.676	78.60	-1.35	25.19	-12.37	1.74	1.73
HV9W06-509	13.3	72.9	0.45	11.8	0.662	79.15	-1.18	24.14	-12.47	1.82	1.88
HV9W06-262	14.7	70.7	0.46	13.1	0.550	79.83	-1.46	24.11	-14.52	2.35	1.70
HV9W04-1594R	14.0	70.1	0.48	12.5	0.422	79.57	-0.94	23.41	-12.97	1.44	3.47
CO04393	14.2	72.3	0.39	12.4	0.550	79.94	-1.32	24.65	-13.85	2.07	0.36
CO04499	13.7	71.3	0.38	12.0	0.618	80.09	-1.27	23.29	-14.50	2.15	2.89
CO050270	13.4	71.0	0.41	11.2	0.539	80.87	-1.16	21.93	-14.50	1.94	3.36
CO050303-2	13.4	71.1	0.40	11.8	0.570	80.86	-1.31	22.31	-15.50	2.08	4.06
CO050322	13.5	72.0	0.41	11.8	0.569	80.60	-1.88	26.02	-12.42	1.97	1.90
CO050337-2	13.5	71.5	0.42	11.9	0.591	80.96	-1.73	25.27	-13.99	2.10	3.67
KS010990M-8	14.3	70.3	0.45	12.1	0.526	82.10	-1.64	22.31	-14.77	2.01	3.68
KS06O3A-50-3	14.0	70.8	0.43	12.4	0.480	81.34	-1.27	22.93	-14.16	1.66	3.89
KS06O3A-58-2	14.6	68.8	0.45	13.1	0.482	80.55	-1.16	23.88	-15.10	2.44	1.26
KS011327M-2	14.5	71.1	0.41	12.7	0.491	80.78	-1.30	23.14	-15.60	2.14	2.57
OK07209	13.8	70.3	0.36	11.9	0.520	80.10	-1.51	24.28	-12.85	1.92	1.68
TX05A001822	14.5	71.4	0.42	12.5	0.531	80.28	-1.06	22.37	-14.92	2.41	1.36
TX06A001263	13.7	70.2	0.42	11.9	0.616	79.24	-1.28	23.74	-13.58	2.07	0.60
TX06A001132	13.7	72.4	0.43	11.8	0.619	80.69	-0.77	21.65	-14.16	1.69	3.64
TX06A001281	14.0	67.0	0.40	12.3	0.669	79.38	-1.16	23.16	-13.57	1.74	2.99

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
TX06A001386	13.4	69.7	0.37	11.8	0.517	80.89	-0.93	20.89	-12.85	1.26	4.24
TX05V7259	14.4	68.2	0.40	12.6	0.671	80.17	-0.99	22.22	-12.72	1.36	3.15
TX05V7269	13.4	68.0	0.39	11.8	0.639	82.30	-1.46	20.34	-14.24	1.49	4.91
TX05A001188	14.8	72.0	0.36	12.4	0.631	82.44	-1.23	19.99	-14.78	2.39	2.45
BC01138-5	13.6	71.4	0.36	12.1	0.595	81.64	-1.48	21.64	-14.79	1.87	4.56
AP06T3621	14.2	69.3	0.37	12.5	0.615	81.88	-1.20	20.77	-15.97	2.56	3.30

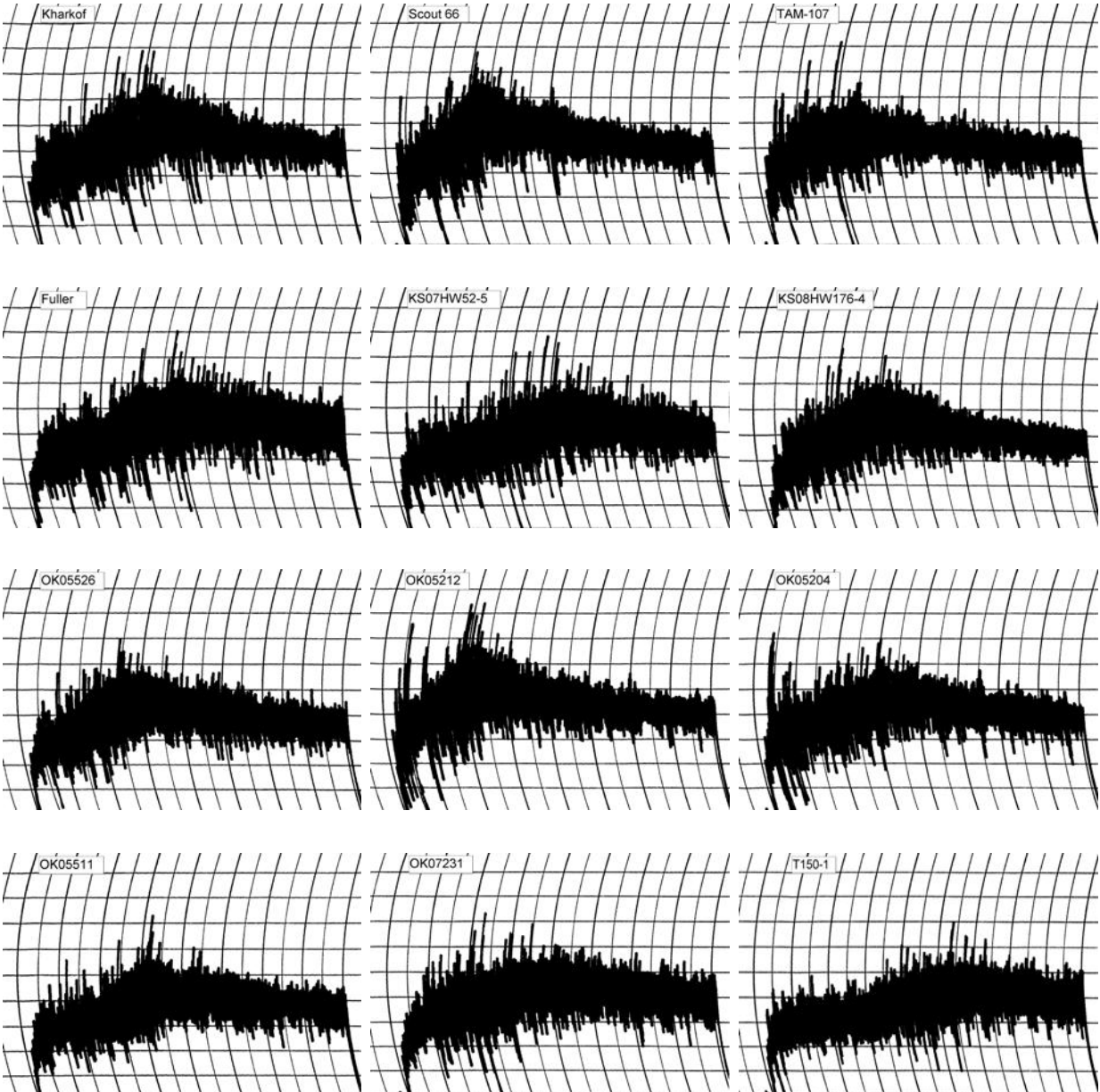
2010 SRPN Intraregional Production Zone

Southern High Plains

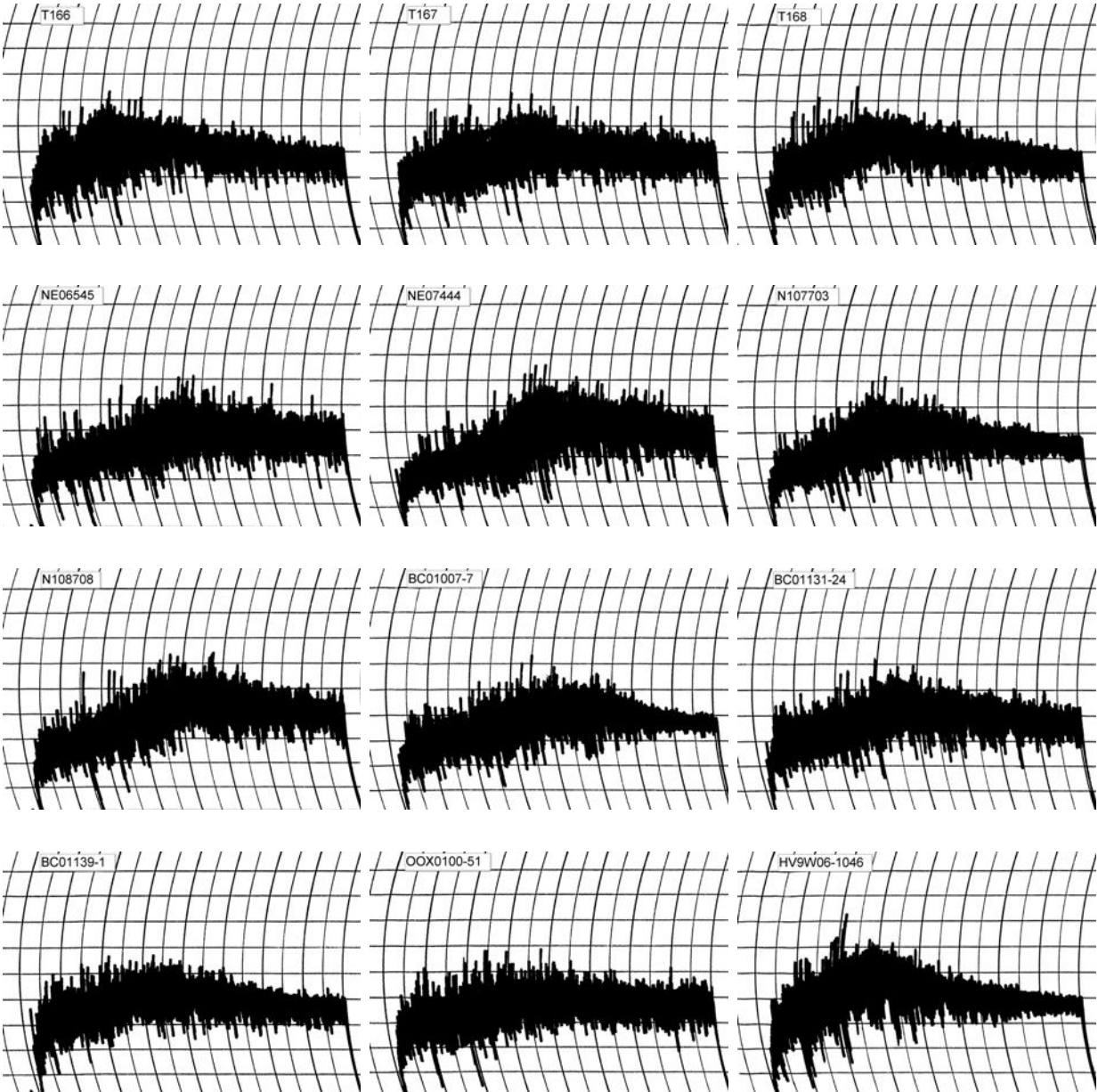
	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	14.0	64.3	3.13	3.13	2
Scout 66	13.2	64.4	2.38	2.38	2
TAM-107	11.8	61.1	2.50	2.44	2
Fuller	13.0	64.6	4.00	4.00	5
KS07HW52-5	12.0	63.0	4.38	4.38	4
KS08HW176-4	12.1	62.1	2.88	2.88	2
OK05526	12.9	64.6	2.75	2.75	2
OK05212	13.3	65.1	2.13	2.13	2
OK05204	12.3	62.4	3.13	3.13	2
OK05511	11.9	62.8	3.25	3.21	2
OK07231	12.3	63.4	3.88	3.88	4
T150-1	13.0	64.5	5.38	5.38	5
T166	11.8	62.5	2.25	2.18	2
T167	12.2	63.4	3.50	3.50	3
T168	11.8	62.6	2.63	2.57	1
NE06545	12.0	62.8	4.25	4.23	4
NE07444	12.3	62.3	3.75	3.75	4
NI07703	12.2	62.4	3.13	3.13	1
NI08708	13.1	63.8	3.88	3.88	2
BC01007-7	12.5	62.8	4.13	4.13	0
BC01131-24	12.9	63.9	3.50	3.50	2
BC01139-1	12.6	62.0	3.50	3.50	2
00X0100-51	12.2	62.4	3.38	3.38	3
HV9W06-1046	13.3	63.1	2.75	2.75	1
HV9W06-509	11.8	61.7	2.88	2.82	2
HV9W06-262	13.1	63.8	4.00	4.00	4
HV9W04-1594R	12.5	62.2	3.50	3.50	0
CO04393	12.4	63.2	4.13	4.13	4
CO04499	12.0	62.8	3.25	3.24	3
CO050270	11.2	61.6	2.63	2.37	2
CO050303-2	11.8	62.6	2.88	2.80	2
CO050322	11.8	62.6	3.00	2.93	1
CO050337-2	11.9	62.8	3.00	2.97	2
KS010990M~8	12.1	63.2	3.50	3.50	2
KS06O3A~50-3	12.4	59.7	2.88	2.88	0
KS06O3A~58-2	13.1	61.8	3.00	3.00	0
KS011327M~2	12.7	63.7	3.38	3.38	2
OK07209	11.9	62.2	3.38	3.33	3
TX05A001822	12.5	63.8	3.50	3.50	2
TX06A001263	11.9	62.8	3.13	3.08	2
TX06A001132	11.8	62.6	2.63	2.57	1
TX06A001281	12.3	62.4	2.63	2.63	2

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
TX06A001386	11.8	62.6	3.50	3.41	3
TX05V7259	12.6	64.0	4.38	4.38	5
TX05V7269	11.8	62.6	3.50	3.41	3
TX05A001188	12.4	63.6	3.38	3.38	4
BC01138-5	12.1	62.1	3.13	3.13	3
AP06T3621	12.5	63.8	4.88	4.88	4

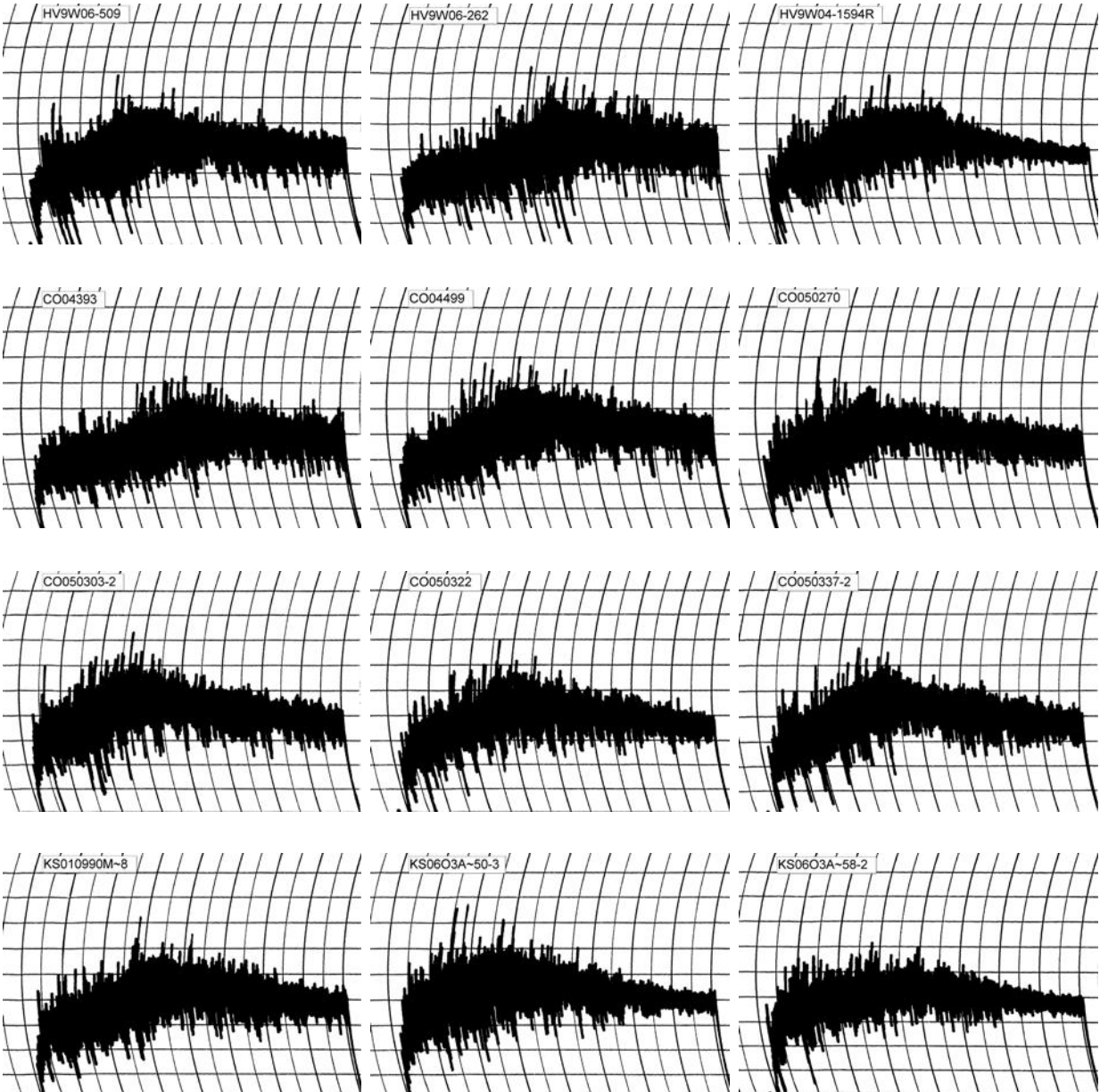
2010 SRPN Intraregional Production Zone Southern High Plains



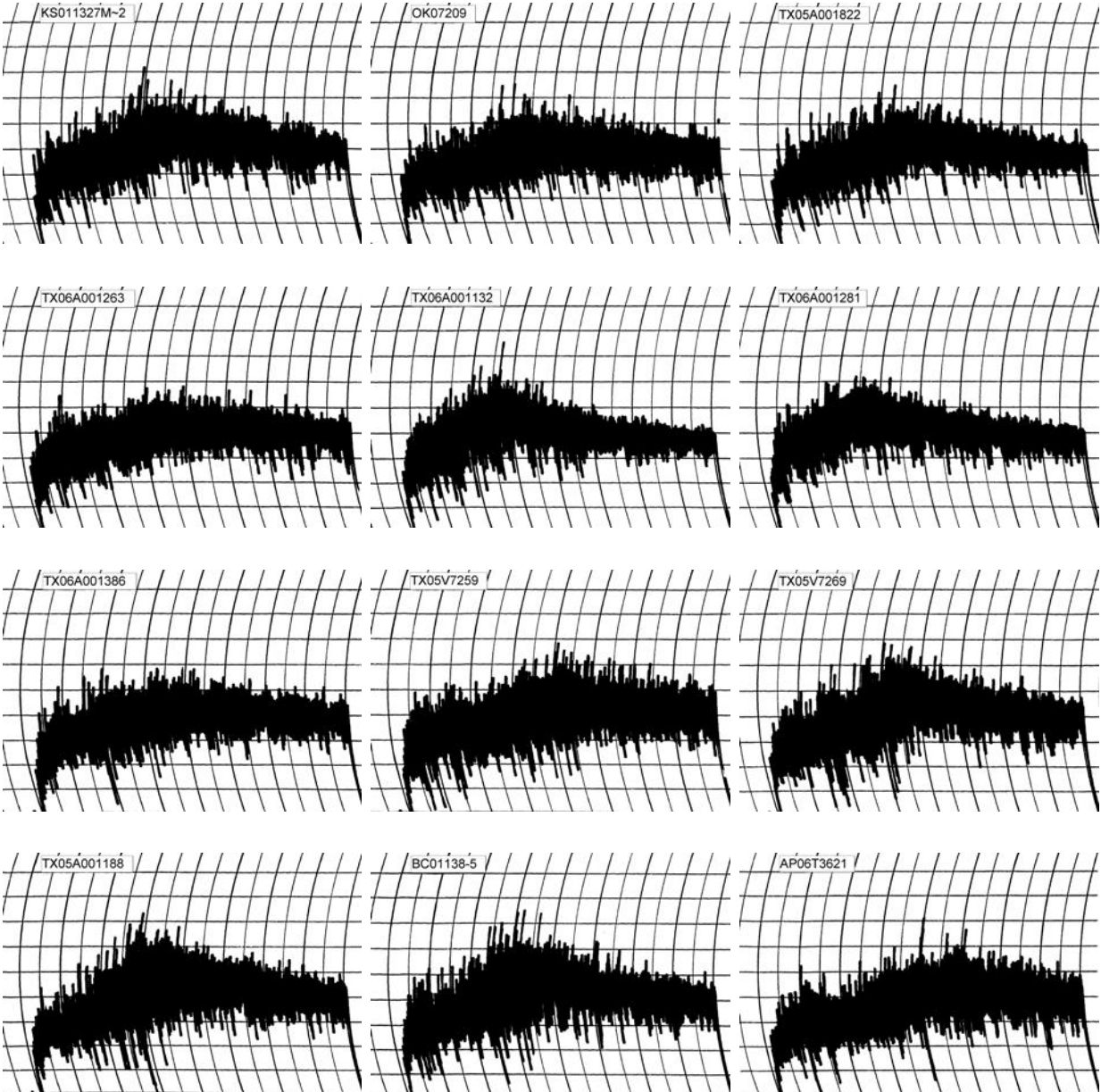
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2010 SRPN Intraregional Production Zone

Southern High Plains

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	159.25	237.17	182.08	55.08	294.92	112.83	6.60	86.45
Scout 66	123.67	224.75	167.25	57.50	289.83	122.58	6.33	67.65
TAM-107	115.50	266.42	197.75	68.67	321.08	123.33	6.60	67.75
Fuller	140.92	234.33	180.42	53.92	304.33	123.92	6.47	67.85
KS07HW52-5	120.83	280.75	169.42	111.33	283.58	114.17	6.27	67.80
KS08HW176-4	112.75	267.83	159.67	108.17	267.33	107.67	6.27	68.55
OK05526	116.92	244.33	175.00	69.33	297.75	122.75	6.33	67.80
OK05212	132.75	234.25	169.67	64.58	287.75	118.08	6.40	67.75
OK05204	114.00	238.92	161.92	77.00	274.33	112.42	6.33	68.60
OK05511	102.42	235.08	157.67	77.42	270.75	113.08	6.27	67.85
OK07231	142.42	206.08	156.17	49.92	275.75	119.58	6.27	66.95
T150-1	118.33	254.25	170.75	83.50	283.42	112.67	6.40	68.55
T166	138.83	249.92	181.42	68.50	300.67	119.25	6.53	68.60
T167	140.92	255.33	186.25	69.08	301.33	115.08	6.47	68.60
T168	130.50	255.92	179.50	76.42	300.17	120.67	6.47	68.55
NE06545	98.00	257.17	184.17	73.00	315.33	131.17	6.33	67.75
NE07444	126.83	223.75	161.42	62.33	287.83	126.42	6.27	67.80
NI07703	95.83	220.42	148.67	71.75	262.00	113.33	6.27	67.65
NI08708	127.67	217.67	162.67	55.00	290.42	127.75	6.33	67.75
BC01007-7	119.58	194.42	141.58	52.83	256.08	114.50	6.20	67.80
BC01131-24	108.25	258.08	160.58	97.50	264.17	103.58	6.33	67.80
BC01139-1	120.50	211.42	152.25	59.17	266.42	114.17	6.33	67.00
00X0100-51	121.00	209.42	160.50	48.92	285.08	124.58	6.33	67.65
HV9W06-1046	129.58	232.67	169.00	63.67	289.50	120.50	6.40	68.55
HV9W06-509	129.33	226.67	163.67	63.00	286.83	123.17	6.27	67.70
HV9W06-262	134.92	243.50	182.25	61.25	304.42	122.17	6.47	67.70
HV9W04-1594R	136.25	210.50	154.83	55.67	269.17	114.33	6.40	67.75
CO04393	126.33	265.67	181.83	83.83	285.17	103.33	6.53	68.60
CO04499	131.17	260.58	183.08	77.50	290.58	107.50	6.53	68.65
CO050270	119.00	189.08	124.25	64.83	236.08	111.83	6.00	67.75
CO050303-2	148.17	213.00	165.92	47.08	286.50	120.58	6.40	67.80
CO050322	131.75	202.08	151.25	50.83	278.75	127.50	6.20	67.75
CO050337-2	124.83	209.75	153.25	56.50	283.42	130.17	6.20	67.70
KS010990M-8	130.08	223.33	168.50	54.83	289.00	120.50	6.40	67.80
KS06O3A-50-3	141.17	226.50	170.92	55.58	286.00	115.08	6.53	67.70
KS06O3A-58-2	139.58	228.42	167.58	60.83	282.42	114.83	6.47	67.75
KS011327M-2	148.42	226.42	177.25	49.17	295.42	118.17	6.53	66.90
OK07209	134.75	229.42	174.75	54.67	299.92	125.17	6.40	68.60
TX05A001822	132.67	238.00	175.92	62.08	291.75	115.83	6.47	67.80
TX06A001263	125.00	262.42	180.17	82.25	280.67	100.50	6.47	68.60
TX06A001132	124.17	217.75	164.08	53.67	290.00	125.92	6.20	67.85
TX06A001281	127.75	264.00	165.17	98.83	253.67	88.50	6.33	70.25
TX06A001386	117.00	252.17	170.58	81.58	273.42	102.83	6.47	67.85
TX05V7259	170.83	231.92	188.42	43.50	306.33	117.92	6.60	67.70
TX05V7269	128.67	226.75	170.58	56.17	297.67	127.08	6.33	68.60
TX05A001188	131.75	243.25	171.50	71.75	293.17	121.67	6.40	68.60

RVA								
Line	Stirring Number (RVU)	Peak Viscosity (RVU)	Trough Viscosity (RVU)	Breakdown (RVU)	Final Viscosity (RVU)	Set back (RVU)	Peak Time (min)	Pasting Temp (Deg. C)
BC01138-5	137.42	255.92	175.25	80.67	286.58	111.33	6.40	67.70
AP06T3621	152.58	240.00	170.83	69.17	292.67	121.83	6.40	67.70

2010 SRPN Intraregional Production Zone

Southern High Plains

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	Loaf Volume	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	14.0	64.3	4.50	4.50	173.5	7.9	4.5	960	6.4	60
Scout 66	13.2	62.3	3.13	3.13	171.4	7.9	3.5	965	6.5	65
TAM-107	11.8	60.5	2.63	2.57	169.7	7.3	3.0	900	6.1	68
Fuller	13.0	64.4	4.50	4.50	173.5	7.3	4.5	965	6.5	67
KS07HW52-5	12.0	63.2	4.88	4.88	172.5	7.6	4.5	940	6.4	71
KS08HW176-4	12.1	60.3	3.00	3.00	169.7	7.4	2.5	915	6.3	67
OK05526	12.9	63.1	4.00	4.00	173.6	7.5	3.0	960	6.5	66
OK05212	13.3	64.4	3.25	3.25	173.8	7.7	4.0	975	6.6	65
OK05204	12.3	61.4	3.50	3.50	170.3	7.5	5.0	965	6.6	72
OK05511	11.9	63.6	4.00	3.95	172.4	7.4	4.0	950	6.4	73
OK07231	12.3	64.3	4.38	4.38	175.1	7.7	5.0	950	6.4	70
T150-1	13.0	65.0	7.25	7.25	173.1	7.7	3.8	1040	7.1	74
T166	11.8	61.1	3.00	2.91	170.5	7.4	3.0	935	6.3	72
T167	12.2	61.1	4.00	4.00	170.5	7.6	3.5	925	6.3	68
T168	11.8	63.1	3.00	2.93	172.2	7.3	3.0	935	6.3	72
NE06545	12.0	63.0	5.00	4.98	172.4	7.5	4.0	915	6.1	69
NE07444	12.3	64.2	5.50	5.50	173.2	7.6	4.0	915	6.1	66
NI07703	12.2	61.9	3.75	3.75	170.8	7.7	4.0	975	6.6	73
NI08708	13.1	62.8	5.50	5.50	172.0	7.6	4.5	995	6.7	69
BC01007-7	12.5	59.8	3.75	3.75	168.9	7.7	3.5	920	6.3	65
BC01131-24	12.9	61.2	4.00	4.00	170.3	7.8	4.0	1035	7.1	75
BC01139-1	12.6	60.4	3.63	3.63	170.2	7.4	2.8	900	6.1	62
00X0100-51	12.2	60.3	3.75	3.75	170.0	7.1	2.8	860	5.8	61
HV9W06-1046	13.3	62.0	3.88	3.88	170.8	7.6	3.5	935	6.3	62
HV9W06-509	11.8	61.6	3.63	3.56	171.3	7.4	3.0	925	6.2	71
HV9W06-262	13.1	63.8	5.63	5.63	172.7	7.9	4.5	965	6.4	66
HV9W04-1594R	12.5	60.5	4.00	4.00	169.8	7.5	3.0	880	6.1	61
CO04393	12.4	63.2	4.88	4.88	172.0	7.4	4.0	965	6.6	70
CO04499	12.0	62.7	4.63	4.61	171.4	7.4	3.0	970	6.6	75
CO050270	11.2	60.2	2.75	2.48	169.5	7.1	1.5	800	5.5	61
CO050303-2	11.8	61.4	3.00	2.92	171.0	7.2	2.5	850	5.8	63
CO050322	11.8	61.2	3.75	3.66	169.9	7.2	4.0	870	5.9	65
CO050337-2	11.9	61.1	3.38	3.34	170.5	7.3	3.5	885	5.9	66
KS010990M-8	12.1	63.5	4.13	4.13	172.5	7.4	4.0	955	6.4	72
KS06O3A-50-3	12.4	59.4	3.50	3.50	168.9	7.4	2.5	925	6.3	66
KS06O3A-58-2	13.1	60.4	3.38	3.38	169.7	7.2	2.0	805	5.4	50
KS011327M-2	12.7	61.5	3.75	3.75	170.9	7.7	3.0	980	6.6	70
OK07209	11.9	63.5	4.00	3.94	172.0	7.6	5.0	955	6.4	74
TX05A001822	12.5	63.2	3.75	3.75	172.4	7.9	4.0	1010	6.8	75
TX06A001263	11.9	62.5	4.00	3.93	171.6	7.6	4.5	975	6.6	76
TX06A001132	11.8	63.3	2.75	2.69	172.9	7.4	4.0	880	5.9	66
TX06A001281	12.3	61.5	2.63	2.63	170.9	7.4	2.5	935	6.3	68
TX06A001386	11.8	63.5	3.75	3.65	173.6	7.4	3.0	975	6.5	77
TX05V7259	12.6	65.1	5.50	5.50	173.9	7.7	4.0	930	6.2	65

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	Loaf Volume	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
TX05V7269	11.8	63.1	4.13	4.03	172.8	7.5	4.5	945	6.2	73
TX05A001188	12.4	64.5	4.75	4.75	173.4	7.4	5.0	995	6.6	74
BC01138-5	12.1	64.7	4.50	4.50	173.6	7.6	5.0	965	6.4	73
AP06T3621	12.5	64.5	5.50	5.50	173.9	7.6	3.8	915	6.1	65

2010 SRPN Intraregional Production Zone Southern High Plains

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2010 SRPN Intraregional Production Zone Southern High Plains

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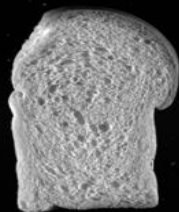


2010 SRPN Intraregional Production Zone Southern High Plains

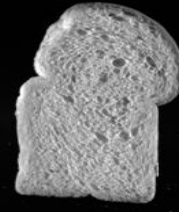
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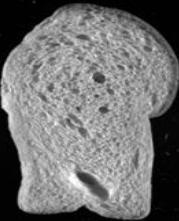
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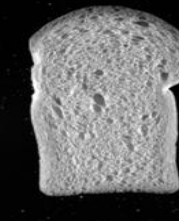
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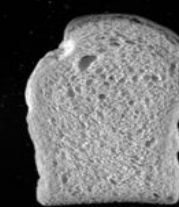
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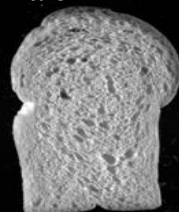
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2010 SRPN Intraregional Production Zone Southern High Plains

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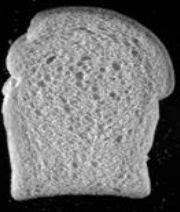
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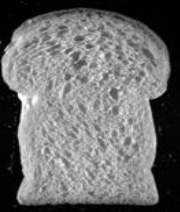
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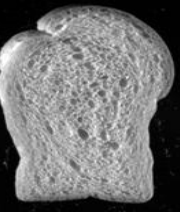
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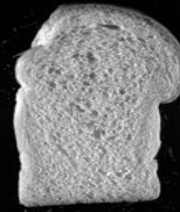
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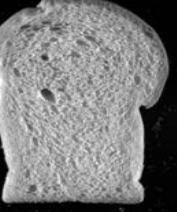
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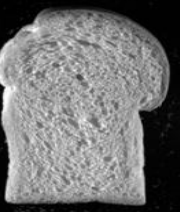
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