

2012 Hard Winter Wheat Regional Performance Nursery Quality Report



Hard Winter Wheat Quality Laboratory

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TABLE OF CONTENTS

About 2012 Crop	2
About the HWWQL Quality Data	4
NRPN North Central Plains (NCP)	10
NRPN Northern High Plains (NHP)	26
NRPN Northern Plains (NP)	41
SRPN North Central Plains (NCP)	58
SRPN Northern High Plains (NHP)	79
SRPN South Central Plains (SCP)	99
SRPN Southern High Plains (SHP)	119

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Hard Winter Wheat Quality Laboratory

About the 2012 Crop ...

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 with number of samples submitted in the parenthesis were subdivided and variety-composited according to the following zones:

Northern Regional Performance Nursery (NRPN)

North Central Plains (NCP)

Ames, IA (0)
Lincoln, NE (34)
St. Paul, MN (34)
Crookston, MN (34)
Brookings, SD (34)
Dakota Lakes/ (Pierre), SD (34)
Winner, SD (34)

Northern Plains (NP)

Prosper/Casselton, ND (34)
Belfield, ND (34)
Hettinger, ND (0)
Bozeman, MT (34)
Moccasin, MT (34)
Williston, ND (34)

Northern High Plains (NHP)

Alliance, NE (0)
Archer, WY (0)
Sidney, NE (34)
Wichita, KS (34)

Southern Regional Performance Nursery (SRPN)

North Central Plains (NCP)

Crawfordsville, IA (0)
Clay center, NE (44)
Lincoln, NE (44),
Salina, KS (0)
Manhattan, KS (43)
Brookings, SD (44)

Dakota Lakes/ (Pierre), SD (44)
Winner, SD (44)

Northern High Plains (NHP)

Colby, KS (44)
Julesburg, CO (44)
North Platte, NE (44)
Alliance, NE (0)
Archer, WY (0)
Sidney, NE (44)
Arkon, CO (43)
Burlington, CO (44)
Ft. Collins, CO (44)
Farmington, NM (42)

South Central Plains (SCP)

Bushland-irr, TX (44)
Goodwell-irr, OK (44)
Hays, KS (44)
Hutchison, KS (44)
Haven/Windfield, KS (0)
Lahoma, OK (44)
Wichita, KS (44)
Granite/Hobart, OK (44)
Chillicothe, TX (44)
Dallas/Prosper, TX (0)
Stillwater, OK (44, but dropped due to infection)

Southern High Plains (SHP)

Bushland-dry, TX (44)
Clovis-dry, NM (0)
Clovis-irr, NM (0)
Garden City, KS (0)
Walsh/Springfield, CO (0)

HWWQL Laboratory Analyses

About the HWWQL Quality Data ...

Milling, flour chemical, physical dough, breadmaking, noodlemaking properties and flour protein analysis of 2012 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

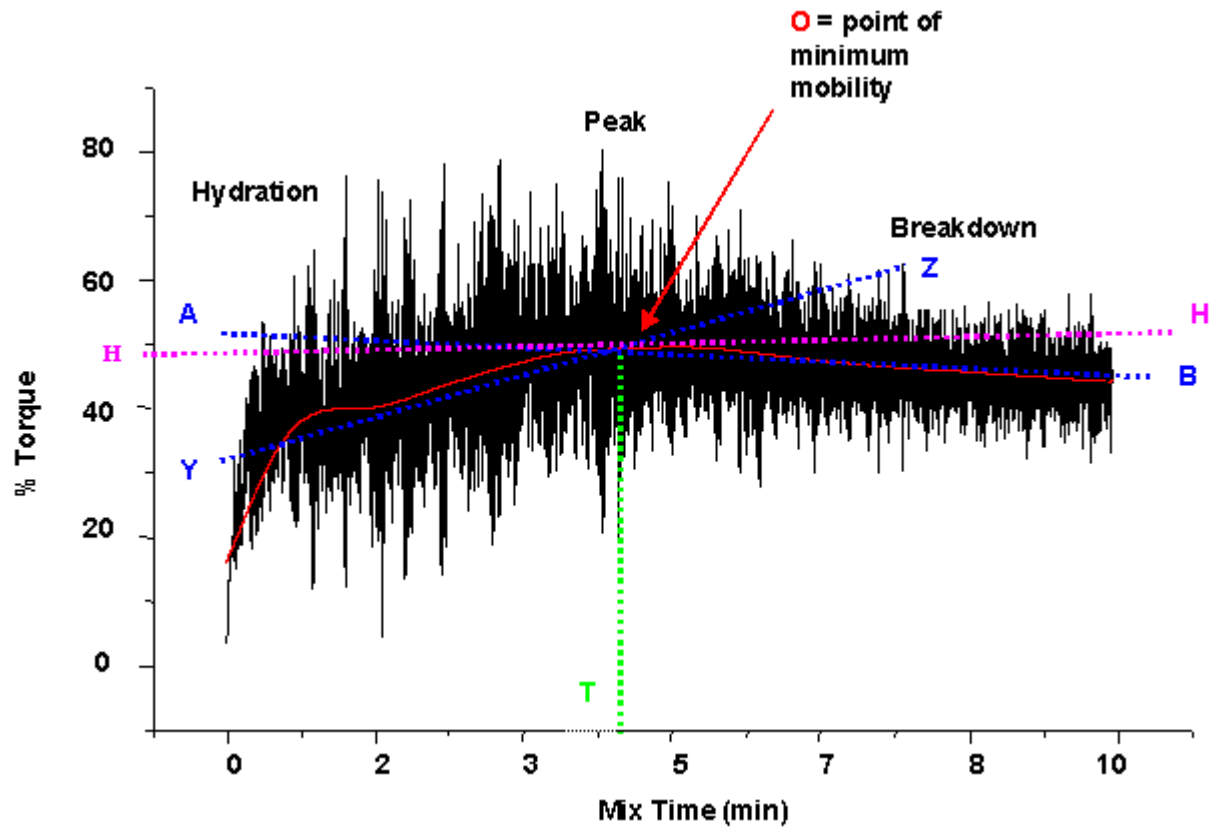
- Ash (FA) = flour ash content (%) on 14% mb. (AACC Method 08-01)
- Protein (FP) = flour protein content (%) on 14% mb. (AACC Method 46-30 or 39-11)
- Color (dry flour) = Minolta method
- PPO = polyphenol oxidase activity defined as a change of 0.001 absorbance unit (AU)/min/mL

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).

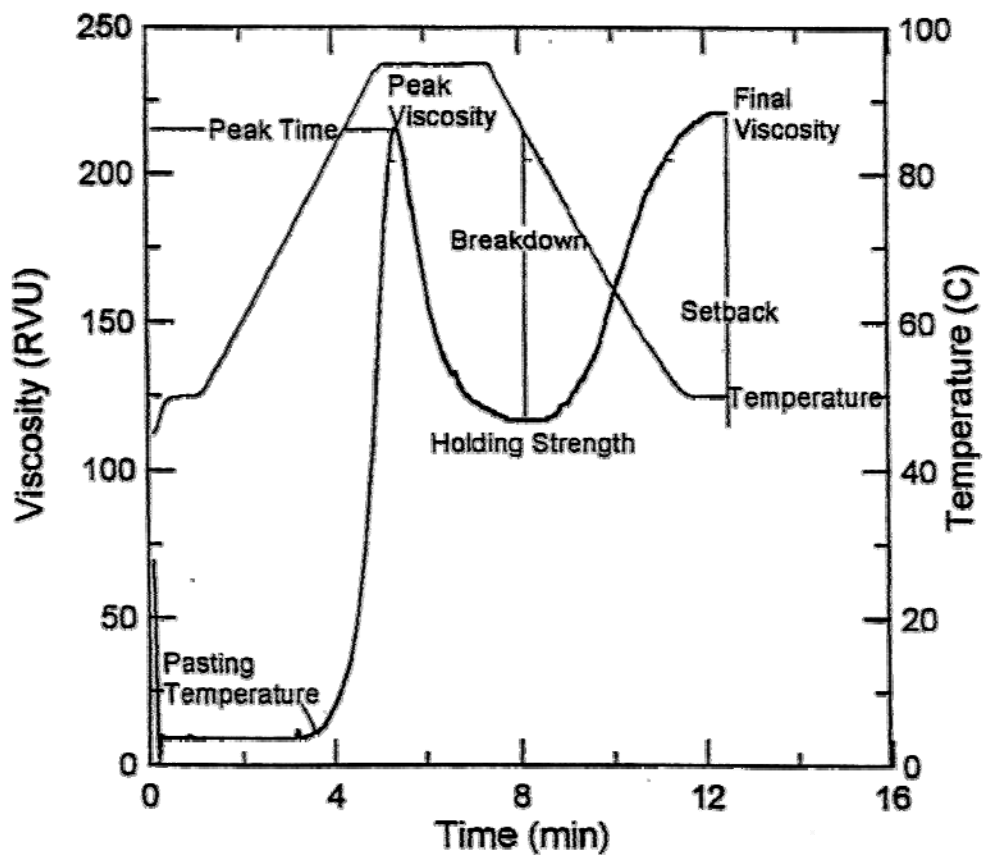
Mixogram Curve



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. Sam Rice; Lou Heaton, Ph.D.

Bake Lab: Margo Caley, B.S.; Theresa Sutton, B.S.; Susan Xiao, M.D.; Guixiang (Lucy) Lu, M.D.; 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

2012 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	Lyman	Lyman	check
6	NW05M6011-10-2	Nuplains/Arrowsmith	ARS-LNK
7	NW05M6011-22-3	Nuplains/Arrowsmith	ARS-LNK
8	NE09495	NE99464=(NE86606/RAWHIDE//ABILENE)/CO980607=(YUMA/T-57//TAM2	UNL
9	NE09499	OH687/PURPLE ONLY//NE00403	UNL
10	NE09637	T124/NE97638=(NE90614 (=BRL/4/PKR*4/AGT//BEL.198/LCR/3/NWT/BRL	UNL
11	NH09655	SADOVO552/NH01031//TEAL	UNL
12	NE08476	NE97426=(BRIGANTINA/2*ARAPAHOE)/OK96717-99-6756=(Abilene/2180/	UNL
13	NE08659	NE00687=(IL85-3132-1/NE92529//RAW1B93)/HALLAM	UNL
14	NW07505	Trego/Thunderbolt F3	UNL
15	NE08527	1998 ROANE/CULVER=(NE82419 X ARAPAHOE)	UNL
16	MTS0808	MT9908//Nuplains/MTS9862	MSU
17	MTS0819	93X312E14/NuHorizon	MSU
18	MTS0826	MT9524/G15048//Rampart	MSU
19	MT0871	MT9982//MTW0072/NW97S151	MSU
20	T180	T135 / T140	Limagrain Cereal Seeds
21	T179	T81 / CO99314	Limagrain Cereal Seeds
22	LCH08-80	S6742 / 92PAN1#33 // 92PIN#107	Limagrain Cereal Seeds
23	LCH08-12	PAVON76 / P2643 // 92PAN2#26	Limagrain Cereal Seeds
24	LCH10-13	00F5--58-3 / STANOF	Limagrain Cereal Seeds
25	SD05085-1	SD92107-2/TX96D2845	SDSU
26	SD06158	Wesley/CDC Falcon	SDSU
27	SD07184	Expedition/SD97W650//KS00H10-32-1-1	SDSU
28	SD07W083-4	Alice/KS91048-L-2-1//Ning7840/Wendy	SDSU
29	SD08080	SD97059-2/G980723	SDSU
30	SD08200	Wesley/KS91048-L-2-1//NE93613/Wendy	SDSU
31	SD09113	Jerry/Ning7840//KS920946-B-15-2/Wendy	SDSU
32	SD09192	Harding/Trego//Trego/Wendy	SDSU
33	SD09227	SD97088/KS920709-B-5-2//Jagalene/Wendy	SDSU
34	SD09138	SD92107-5/OK94P549-99-6704//Jagalene/Wendy	SDSU



Hard Winter Wheat Quality Report 2012 NRPN-NCP

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

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
Kharkof	48.3	Very Poor	71.4	61.5	Very Good	95.9		
Overland	62.5	Average	92.5	34.4	Poor	53.7		16,
Wesley	66.1	Very Good	97.9	58.4	Very Good	91.1		
Jerry	57.1	Poor	84.5	46.2	Good	72.0		20,
Lyman	66.0	Very Good	97.7	48.8	Good	76.0	1AL	16,
NW05M6011-10-2	67.2	Very Good	99.5	47.7	Good	74.3		16,
NW05M6011-22-3	62.8	Average	92.9	33.1	Poor	51.6		3,16,
NE09495	62.5	Average	92.4	36.2	Poor	56.5		11,13,17,19,
NE09499	58.3	Poor	86.3	32.6	Very Poor	50.8		16,
NE09637	37.0	Very Poor	54.7	24.1	Very Poor	37.6		6,8,10,11,12,13,16,17,18,19,2
NH09655	61.5	Poor	91.0	38.7	Average	60.3		16,
NE08476	54.7	Very Poor	80.9	33.6	Very Poor	52.4		15,
NE08659	63.3	Good	93.7	55.9	Very Good	87.2		
NW07505	55.6	Very Poor	82.2	48.0	Good	74.9		5,14,15,
NE08527	38.2	Very Poor	56.6	57.8	Very Good	90.0		8,10,
Warhorse	55.9	Very Poor	82.8	51.1	Good	79.7		2,6,16,18,
MTS0819	56.8	Poor	84.0	46.2	Average	72.0	1AL	1,2,4,15,
MTS0826	63.5	Good	94.1	33.0	Very Poor	51.5		14,15,
MT0871	58.6	Poor	86.8	39.5	Poor	61.6		1,9,
T180	56.7	Poor	83.9	47.7	Good	74.4		3,5,
T179	57.0	Poor	84.4	37.7	Poor	58.7		2,4,16,
LCH08-80	62.2	Average	92.1	22.0	Very Poor	34.3		15,16,18,19,20,21,
LCH08-12	45.2	Very Poor	66.9	26.0	Very Poor	40.6		4,6,16,
LCH10-13	64.7	Good	95.7	37.6	Poor	58.7		16,
SD05085-1	63.0	Good	93.2	49.5	Good	77.2		16,
SD06158	62.7	Average	92.8	38.2	Poor	59.6		
SD07184	63.3	Good	93.6	64.1	Very Good	100.0		5,
SD07W083-4	65.9	Very Good	97.5	54.0	Very Good	84.3		4,
SD08080	67.5	Very Good	99.8	42.6	Average	66.4		
SD08200	63.3	Good	93.7	42.2	Average	65.8		14,

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 2012 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
SD09113	62.8	Average	93.0	39.2	Average	61.1		
SD09192	61.7	Average	91.4	42.6	Average	66.4	1AL	3,5,9,10,15,
SD09227	64.4	Good	95.3	38.9	Average	60.7		
SD09138	67.6	Very Good	100.0	26.3	Very Poor	41.0		9,16,18,19,20,21,

2012 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	61.1	11.5	0.7	27.9	7.7	2.56	0.29	46	19	MIXED	23--32--25--20--03
Overland	61.7	11.6	0.8	30.0	8.6	2.64	0.35	73	16	HARD	00--05--12--83--01
Wesley	60.3	12.2	0.6	31.7	8.4	2.74	0.33	68	14	HARD	01--03--23--73--01
Jerry	60.1	12.6	0.6	30.2	9.8	2.60	0.36	64	17	HARD	02--09--28--61--01
Lyman	61.7	12.3	0.6	32.2	8.7	2.71	0.33	72	13	HARD	00--01--14--85--01
NW05M6011-10-2	62.9	11.8	0.7	32.0	9.0	2.73	0.34	72	15	HARD	00--03--15--82--01
NW05M6011-22-3	60.9	11.9	0.6	31.3	10.0	2.69	0.33	68	14	HARD	01--07--15--77--01
NE09495	61.7	12.4	0.5	29.6	8.7	2.63	0.35	71	15	HARD	00--04--15--81--01
NE09499	60.2	12.6	0.5	27.2	8.0	2.55	0.32	68	16	HARD	01--07--22--70--01
NE09637	59.5	12.1	0.5	30.6	8.7	2.58	0.34	20	19	SOFT	79--14--04--03--05
NH09655	60.9	12.3	0.6	29.8	8.0	2.67	0.34	69	16	HARD	02--05--19--74--01
NE08476	60.4	12.1	0.6	29.8	7.5	2.63	0.32	53	15	HARD	08--27--32--33--02
NE08659	60.9	12.4	0.7	31.0	9.3	2.63	0.36	74	13	HARD	00--01--12--87--01
NW07505	60.6	12.5	0.6	31.7	9.8	2.73	0.38	78	16	HARD	00--02--08--90--01
NE08527	60.7	11.5	0.6	32.0	8.8	2.68	0.34	41	24	MIXED	44--20--12--24--03
MTS0808	59.7	10.5	0.8	25.9	8.3	2.60	0.33	90	16	HARD	00--01--02--97--01
MTS0819	59.3	10.8	0.7	25.9	7.2	2.53	0.32	83	15	HARD	00--01--04--95--01
MTS0826	62.6	11.0	0.7	31.2	8.9	2.73	0.36	74	15	HARD	01--04--08--87--01
MT0871	58.9	11.4	0.8	28.0	7.5	2.65	0.32	83	15	HARD	00--01--05--94--01
T180	60.1	11.4	0.6	36.6	10.5	2.81	0.37	70	16	HARD	01--05--19--75--01
T179	59.7	10.8	0.6	26.1	6.5	2.52	0.26	70	16	HARD	02--05--17--76--01
LCH08-80	61.9	11.2	0.5	29.0	7.9	2.68	0.35	74	15	HARD	00--01--13--86--01
LCH08-12	60.2	11.1	0.5	28.9	8.9	2.48	0.32	32	21	MIXED	56--24--09--11--03
LCH10-13	62.5	11.1	0.5	29.9	7.5	2.63	0.30	68	15	HARD	02--05--23--70--01
SD05085-1	62.3	11.6	0.5	31.1	8.5	2.70	0.33	66	14	HARD	01--06--26--67--01
SD06158	61.9	11.0	0.5	30.5	8.9	2.65	0.33	66	14	HARD	01--07--23--69--01
SD07184	61.3	11.1	0.5	33.0	9.7	2.77	0.38	60	15	HARD	03--12--34--51--01
SD07W083-4	61.2	11.4	0.5	27.7	7.6	2.50	0.30	65	15	HARD	04--05--20--71--01
SD08080	62.1	11.3	0.5	32.4	8.4	2.73	0.33	61	14	HARD	03--11--29--57--01
SD08200	59.8	10.9	0.6	32.7	9.4	2.74	0.35	72	15	HARD	01--04--12--83--01
SD09113	61.8	11.1	0.6	28.1	7.9	2.66	0.32	76	16	HARD	01--03--08--88--01
SD09192	61.4	11.6	0.5	34.5	10.4	2.78	0.39	76	13	HARD	01--01--07--91--01
SD09227	62.0	11.5	0.5	27.3	7.5	2.63	0.31	77	16	HARD	01--02--10--87--01
SD09138	61.9	11.8	0.5	32.5	8.2	2.70	0.32	75	14	HARD	01--02--11--86--01

2012 NRPN Intraregional Production Zone

North Central Plains

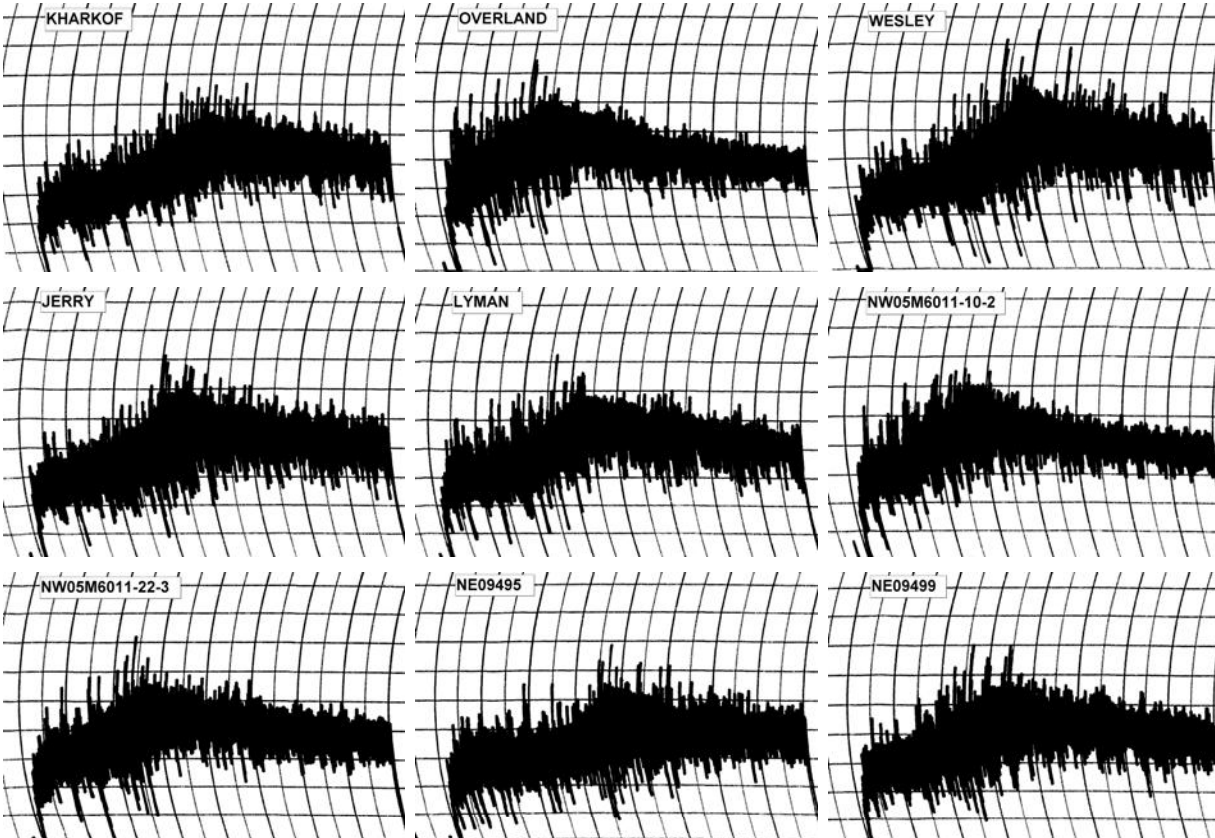
LINE	Wheat		Flour			Noodle Color					
	Protein (%)	Milling Yield (%)	Ash (%)	Protein (%)	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
Kharkof	15.0	65.8	0.36	12.9	0.447	83.15	-1.60	22.33	-11.24	1.05	2.63
Overland	12.4	71.7	0.43	10.8	0.527	80.97	-1.47	23.25	-10.59	1.35	1.91
Wesley	13.5	72.4	0.37	12.2	0.542	81.71	-1.47	22.31	-11.65	1.37	1.69
Jerry	13.3	71.0	0.40	12.0	0.552	83.86	-1.51	21.56	-14.04	1.18	5.56
Lyman	13.9	71.5	0.41	12.2	0.519	80.97	-1.55	24.44	-11.01	1.13	2.85
NW05M6011-10-2	13.7	72.5	0.39	12.2	0.500	81.70	-1.48	22.99	-12.07	1.13	2.94
NW05M6011-22-3	13.1	71.7	0.38	11.4	0.575	82.45	-1.61	22.37	-12.68	1.51	2.69
NE09495	12.3	71.6	0.42	10.6	0.594	81.64	-1.38	22.81	-10.98	1.21	2.52
NE09499	12.9	70.3	0.40	11.2	0.574	82.12	-1.11	21.94	-12.47	1.38	1.55
NE09637	12.1	60.8	0.36	10.0	0.611	83.39	-2.12	23.14	-10.96	2.36	1.57
NH09655	12.9	70.4	0.38	11.0	0.560	81.56	-1.72	24.78	-11.18	1.34	1.94
NE08476	13.0	67.9	0.40	11.7	0.660	82.92	-1.75	22.82	-12.37	1.47	3.35
NE08659	12.6	71.3	0.40	11.1	0.522	82.10	-1.20	21.91	-10.39	1.17	2.68
NW07505	12.5	67.4	0.39	10.8	0.500	82.29	-1.14	20.83	-12.82	1.46	3.13
NE08527	12.9	62.0	0.36	11.0	0.542	83.08	-1.93	24.13	-11.90	1.29	2.79
MTS0808	13.8	67.9	0.43	12.1	0.549	83.10	-1.33	21.51	-16.12	1.38	4.55
MTS0819	13.2	68.1	0.42	11.6	0.619	82.63	-1.69	23.49	-14.08	1.18	4.16
MTS0826	13.4	71.0	0.42	12.1	0.441	82.37	-1.80	24.63	-12.51	1.10	2.60
MT0871	13.0	69.7	0.48	11.9	0.235	82.27	-1.22	23.68	-11.63	1.23	4.63
T180	13.0	68.4	0.40	11.0	0.490	81.40	-0.85	21.96	-14.26	1.53	2.26
T179	13.3	68.2	0.40	11.9	0.654	81.37	-1.49	23.29	-11.45	1.56	3.15
LCH08-80	12.4	69.8	0.39	11.1	0.481	82.35	-1.44	22.81	-10.75	0.85	3.73
LCH08-12	13.0	67.3	0.36	11.4	0.477	82.62	-1.61	22.34	-8.91	0.99	1.61
LCH10-13	12.9	70.2	0.35	11.2	0.546	82.21	-1.47	21.68	-11.28	1.23	2.60
SD05085-1	13.4	70.1	0.37	11.8	0.512	83.06	-1.71	21.09	-12.74	1.31	4.02
SD06158	13.4	70.8	0.39	12.0	0.583	82.46	-1.28	20.05	-13.30	1.35	2.72
SD07184	13.6	72.1	0.35	12.1	0.573	83.12	-1.15	19.69	-13.08	1.13	3.73
SD07W083-4	13.4	73.7	0.39	11.9	0.683	81.42	-0.95	22.31	-13.20	1.78	1.06
SD08080	13.3	73.2	0.38	11.9	0.559	82.17	-0.55	20.62	-11.63	1.44	1.78
SD08200	12.7	71.9	0.39	11.2	0.503	81.57	-1.18	21.71	-12.33	1.95	1.37
SD09113	13.0	70.7	0.41	11.4	0.603	80.00	-1.43	25.75	-11.26	1.96	1.17
SD09192	13.2	70.4	0.45	11.4	0.545	82.26	-1.09	20.83	-13.26	1.38	3.77
SD09227	13.1	71.3	0.40	11.6	0.558	81.69	-1.06	22.57	-12.21	1.13	1.07
SD09138	12.9	72.7	0.45	11.2	0.546	81.00	-1.23	22.62	-12.85	1.50	3.27

2012 NRPN Intraregional Production Zone

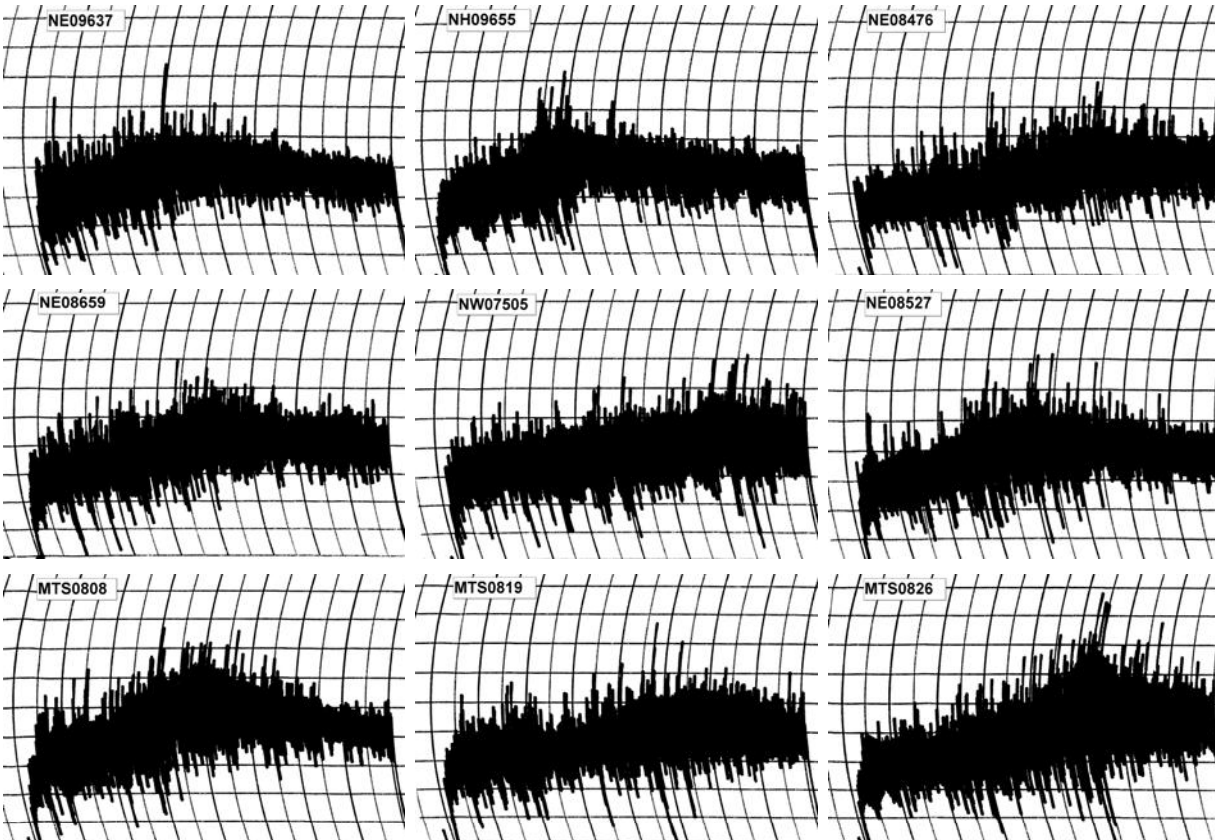
North Central Plains

Line	Flour Protein (%)	Mixograph			
		Absorption (%)	As-Is (min)	Corrected (min)	Tolerance
Kharkof	12.9	64.5	4.00	4.00	4
Overland	10.8	60.9	2.50	2.13	1
Wesley	12.2	63.3	4.00	4.00	5
Jerry	12.0	63.0	3.50	3.50	4
Lyman	12.2	62.2	3.88	3.88	2
NW05M6011-10-2	12.2	63.3	2.63	2.63	2
NW05M6011-22-3	11.4	62.0	2.88	2.68	2
NE09495	10.6	58.6	4.00	3.33	3
NE09499	11.2	61.2	3.50	3.18	2
NE09637	10.0	56.6	3.25	2.46	2
NH09655	11.0	61.2	3.00	2.63	2
NE08476	11.7	62.5	5.38	5.21	5
NE08659	11.1	62.9	4.25	3.80	4
NW07505	10.8	61.0	6.38	5.50	5
NE08527	11.0	61.3	4.00	3.53	3
MTS0808	12.1	63.1	4.00	4.00	2
MTS0819	11.6	62.3	5.75	5.46	5
MTS0826	12.1	63.1	5.50	5.50	5
MT0871	11.9	62.8	3.88	3.83	4
T180	11.0	63.3	2.63	2.31	3
T179	11.9	62.7	3.50	3.44	2
LCH08-80	11.1	61.5	2.13	1.90	2
LCH08-12	11.4	62.0	2.75	2.56	2
LCH10-13	11.2	61.1	3.75	3.38	2
SD05085-1	11.8	61.6	3.88	3.80	2
SD06158	12.0	63.0	4.50	4.50	4
SD07184	12.1	63.1	3.88	3.88	3
SD07W083-4	11.9	60.9	4.00	3.97	3
SD08080	11.9	62.7	3.75	3.70	3
SD08200	11.2	61.6	4.88	4.39	4
SD09113	11.4	60.9	3.25	3.00	3
SD09192	11.4	61.5	5.50	5.10	4
SD09227	11.6	61.8	3.13	3.00	3
SD09138	11.2	61.1	2.50	2.27	2

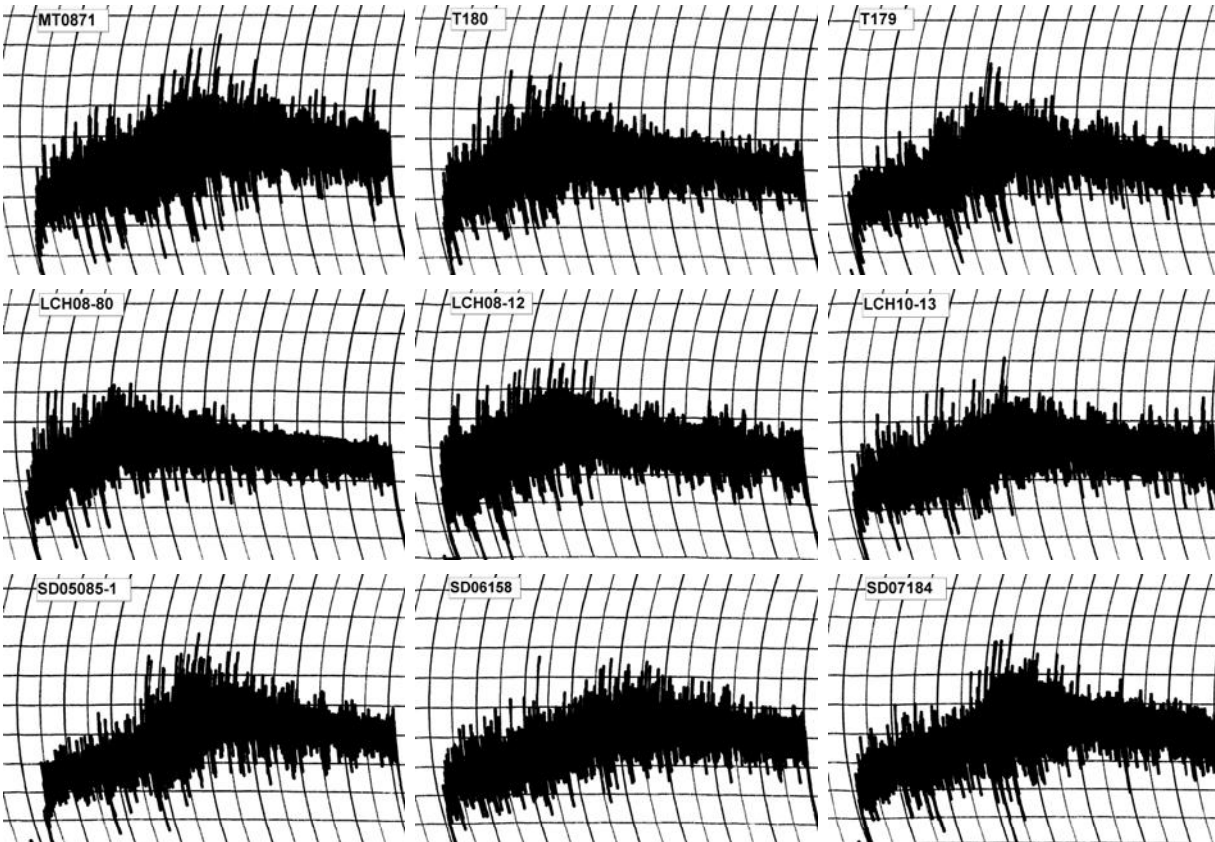
2012 NRPN Intraregional Production Zone North Central Plains



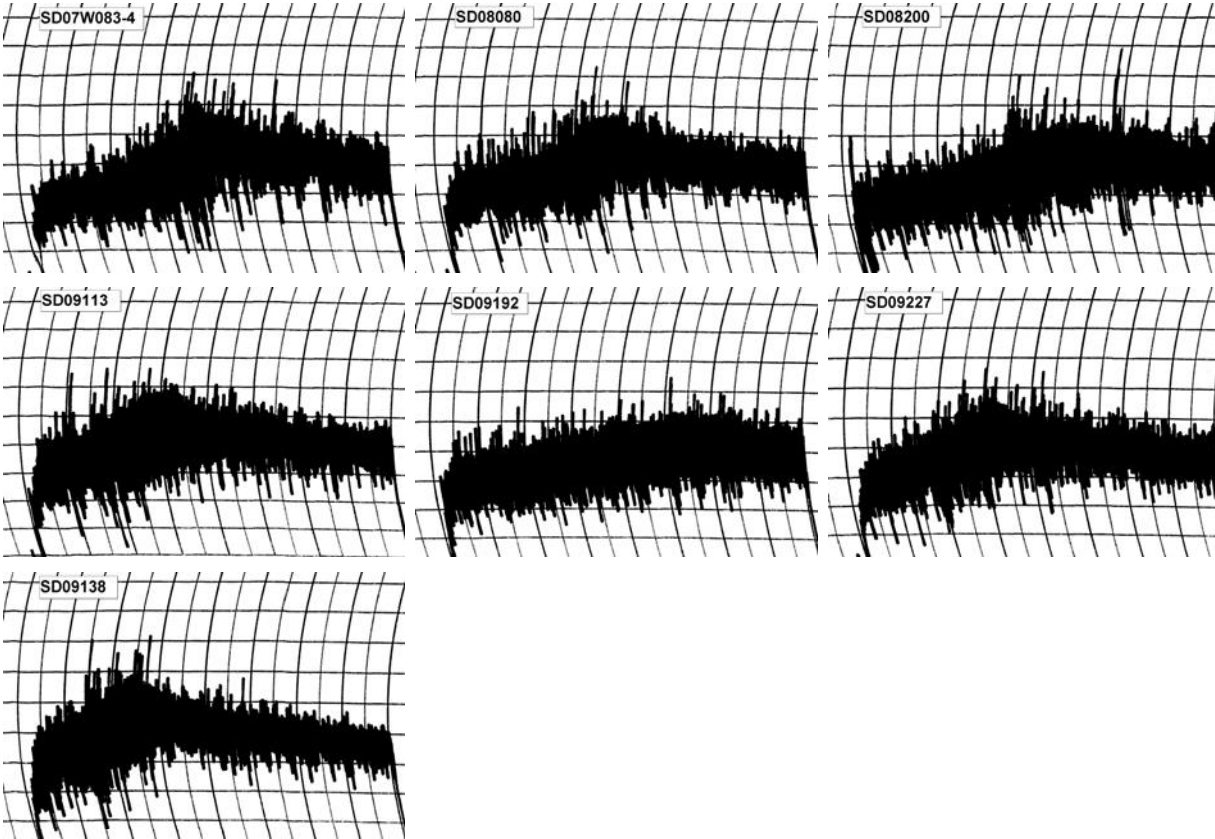
2012 NRPN Intraregional Production Zone North Central Plains



2012 NRPN Intraregional Production Zone North Central Plains



2012 NRPN Intraregional Production Zone North Central Plains



2012 NRPN Intraregional Production Zone

North Central Plains

Line	RVA							Pasting Temp (Deg. C)
	Stirring Number (RVU)	Peak Viscosity (RVU)	Trough Viscosity (RVU)	Breakdown (RVU)	Final Viscosity (RVU)	Set back (RVU)	Peak Time (min)	
Kharkof	146.25	238.58	167.58	71.00	281.33	113.75	6.40	
Overland	109.33	209.25	144.67	64.58	256.50	111.83	6.20	
Wesley	113.42	210.67	138.42	72.25	257.08	118.67	6.07	
Jerry	126.42	207.33	151.75	55.58	271.33	119.58	6.20	
Lyman	123.00	186.17	137.92	48.25	254.67	116.75	6.13	
NW05M6011-10-2	128.67	216.58	148.42	68.17	262.25	113.83	6.20	
NW05M6011-22-3	135.42	228.92	163.25	65.67	284.67	121.42	6.27	
NE09495	114.25	192.75	128.83	63.92	245.83	117.00	6.00	
NE09499	106.50	214.92	144.92	70.00	265.00	120.08	6.13	
NE09637	123.25	245.75	165.92	79.83	292.50	126.58	6.27	
NH09655	121.33	220.08	151.17	68.92	267.33	116.17	6.20	
NE08476	130.17	278.75	173.42	105.33	291.92	118.50	6.27	
NE08659	155.17	237.92	171.17	66.75	294.08	122.92	6.33	
NW07505	127.92	259.17	151.50	107.67	246.42	94.92	6.33	
NE08527	125.17	253.25	142.92	110.33	234.33	91.42	6.27	
MTS0808	142.92	218.42	156.67	61.75	273.00	116.33	6.27	
MTS0819	128.92	223.17	158.83	64.33	275.00	116.17	6.33	
MTS0826	140.00	200.42	151.83	48.58	277.17	125.33	6.20	
MT0871	124.58	222.00	152.50	69.50	272.67	120.17	6.13	
T180	121.75	235.00	152.92	82.08	253.75	100.83	6.33	
T179	124.50	245.08	163.08	82.00	280.83	117.75	6.33	
LCH08-80	127.08	240.25	151.08	89.17	262.25	111.17	6.27	
LCH08-12	133.83	211.00	153.17	57.83	276.42	123.25	6.20	
LCH10-13	137.67	254.33	176.92	77.42	296.50	119.58	6.40	
SD05085-1	126.42	204.67	138.00	66.67	256.25	118.25	6.07	
SD06158	138.08	211.75	158.33	53.42	278.25	119.92	6.27	
SD07184	135.33	237.75	164.00	73.75	283.92	119.92	6.27	
SD07W083-4	124.92	240.83	159.33	81.50	270.67	111.33	6.27	
SD08080	136.75	221.83	157.08	64.75	267.00	109.92	6.27	
SD08200	132.67	198.00	142.75	55.25	260.08	117.33	6.20	
SD09113	134.92	224.08	159.33	64.75	273.08	113.75	6.33	
SD09192	137.33	238.33	168.25	70.08	288.58	120.33	6.33	
SD09227	146.42	216.83	152.58	64.25	272.17	119.58	6.20	
SD09138	124.25	206.83	142.50	64.33	268.58	126.08	5.93	

2012 NRPN Intraregional Production Zone

North Central Plains

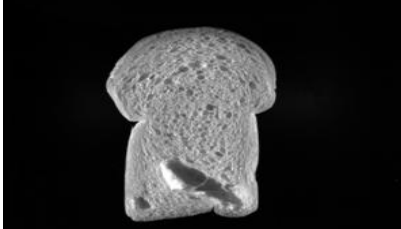
Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	12.9	63.4	5.00	5.00	171.1	7.2	4.0	915	6.2	62
Overland	10.8	60.7	3.00	2.56	169.9	6.8	3.0	795	5.4	63
Wesley	12.2	63.5	6.25	6.25	171.9	7.2	4.0	925	6.3	68
Jerry	12.0	63.1	5.38	5.38	171.8	6.6	3.0	785	5.2	54
Lyman	12.2	62.5	4.25	4.25	170.8	7.1	3.0	875	5.9	63
NW05M6011-10-2	12.2	62.1	3.63	3.63	170.7	7.0	4.0	850	5.8	60
NW05M6011-22-3	11.4	62.2	4.13	3.85	171.3	6.7	3.5	835	5.6	63
NE09495	10.6	60.1	6.13	5.10	168.6	6.7	3.0	750	5.1	59
NE09499	11.2	61.8	4.25	3.87	170.6	6.5	2.5	810	5.5	62
NE09637	10.0	57.8	3.88	2.93	166.9	6.1	2.0	700	4.8	56
NH09655	11.0	61.2	3.00	2.63	169.7	6.9	3.0	835	5.7	67
NE08476	11.7	62.5	6.75	6.53	170.9	6.6	2.8	870	5.8	65
NE08659	11.1	63.1	4.63	4.14	171.6	7.0	4.0	865	5.8	69
NW07505	10.8	62.0	7.88	6.79	170.6	6.9	5.0	870	5.8	72
NE08527	11.0	61.8	5.75	5.08	169.4	7.0	5.0	875	5.8	71
MTS0808	12.1	63.9	5.38	5.38	172.3	6.3	3.0	895	5.9	65
MTS0819	11.6	62.8	7.00	6.65	170.6	6.9	3.0	935	6.3	74
MTS0826	12.1	65.2	7.75	7.75	173.9	6.9	2.5	870	5.8	63
MT0871	11.9	63.0	5.63	5.56	171.6	6.8	3.5	850	5.7	62
T180	11.0	62.2	3.63	3.19	171.2	6.9	4.0	840	5.7	67
T179	11.9	62.3	4.25	4.18	170.9	6.8	3.5	875	5.9	65
LCH08-80	11.1	60.1	2.88	2.58	169.1	6.3	1.0	740	5.0	54
LCH08-12	11.4	60.8	3.38	3.14	170.1	6.6	4.5	775	5.3	56
LCH10-13	11.2	61.3	4.38	3.95	170.0	6.8	5.5	885	6.0	71
SD05085-1	11.8	62.0	4.88	4.78	171.3	6.5	4.0	785	5.3	55
SD06158	12.0	63.3	5.75	5.75	171.6	6.7	4.5	860	5.8	62
SD07184	12.1	63.4	5.25	5.25	172.5	6.9	5.0	925	6.2	69
SD07W083-4	11.9	63.3	5.38	5.34	171.6	7.0	4.0	860	5.7	63
SD08080	11.9	63.3	4.50	4.44	172.1	7.0	3.5	900	6.1	67
SD08200	11.2	61.6	7.25	6.53	170.2	6.8	4.0	810	5.5	62
SD09113	11.4	60.5	3.63	3.35	169.6	6.7	3.0	800	5.4	60
SD09192	11.4	61.5	6.25	5.80	169.6	6.8	3.0	875	5.9	68
SD09227	11.6	61.6	3.63	3.48	171.4	6.5	3.0	780	5.1	55
SD09138	11.2	61.2	3.00	2.72	170.3	6.3	2.0	735	4.9	53

List of NRPN Sample ID

Entry	Breeder ID	HWWQL ID		
		North Central Plains	Northern High Plains	Northern Plains
1	Kharkof	12-NNC1101	12-NNH1101	12-NNP1101
2	Overland	12-NNC1102	12-NNH1102	12-NNP1102
3	Wesley	12-NNC1103	12-NNH1103	12-NNP1103
4	Jerry	12-NNC1104	12-NNH1104	12-NNP1104
5	Lyman	12-NNC1105	12-NNH1105	12-NNP1105
6	NW05M6011-10-2	12-NNC1106	12-NNH1106	12-NNP1106
7	NW05M6011-22-3	12-NNC1107	12-NNH1107	12-NNP1107
8	NE09495	12-NNC1108	12-NNH1108	12-NNP1108
9	NE09499	12-NNC1109	12-NNH1109	12-NNP1109
10	NE09637	12-NNC1110	12-NNH1110	12-NNP1110
11	NH09655	12-NNC1111	12-NNH1111	12-NNP1111
12	NE08476	12-NNC1112	12-NNH1112	12-NNP1112
13	NE08659	12-NNC1113	12-NNH1113	12-NNP1113
14	NW07505	12-NNC1114	12-NNH1114	12-NNP1114
15	NE08527	12-NNC1115	12-NNH1115	12-NNP1115
16	MTS0808	12-NNC1116	12-NNH1116	12-NNP1116
17	MTS0819	12-NNC1117	12-NNH1117	12-NNP1117
18	MTS0826	12-NNC1118	12-NNH1118	12-NNP1118
19	MT0871	12-NNC1119	12-NNH1119	12-NNP1119
20	T180	12-NNC1120	12-NNH1120	12-NNP1120
21	T179	12-NNC1121	12-NNH1121	12-NNP1121
22	LCH08-80	12-NNC1122	12-NNH1122	12-NNP1122
23	LCH08-12	12-NNC1123	12-NNH1123	12-NNP1123
24	LCH10-13	12-NNC1124	12-NNH1124	12-NNP1124
25	SD05085-1	12-NNC1125	12-NNH1125	12-NNP1125
26	SD06158	12-NNC1126	12-NNH1126	12-NNP1126
27	SD07184	12-NNC1127	12-NNH1127	12-NNP1127
28	SD07W083-4	12-NNC1128	12-NNH1128	12-NNP1128
29	SD08080	12-NNC1129	12-NNH1129	12-NNP1129
30	SD08200	12-NNC1130	12-NNH1130	12-NNP1130
31	SD09113	12-NNC1131	12-NNH1131	12-NNP1131
32	SD09192	12-NNC1132	12-NNH1132	12-NNP1132
33	SD09227	12-NNC1133	12-NNH1133	12-NNP1133
34	SD09138	12-NNC1134	12-NNH1134	12-NNP1134

2012 SRPN Intraregional Production Zone North Central Plains

12-NNC1101



12-NNC1102g



12-NNC1103



12-NNC1104



12-NNC1105



12-NNC1106



12-NNC1107



12-NNC1108s



12-NNC1109



2012 SRPN Intraregional Production Zone North Central Plains

12-NNC1110



12-NNC1111



12-NNC1112



12-NNC1113



12-NNC1114



12-NNC1115



12-NNC1116



12-NNC1117

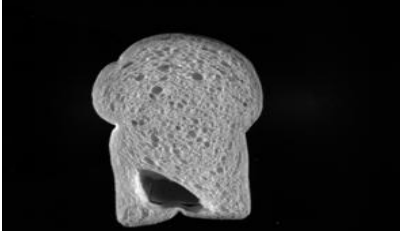


12-NNC1118



2012 SRPN Intraregional Production Zone North Central Plains

12-NNC1119



12-NNC1120



12-NNC1121



12-NNC1122



12-NNC1123



12-NNC1124



12-NNC1125



12-NNC1126



12-NNC1127



2012 SRPN Intraregional Production Zone North Central Plains

12-NNC1128



12-NNC1129



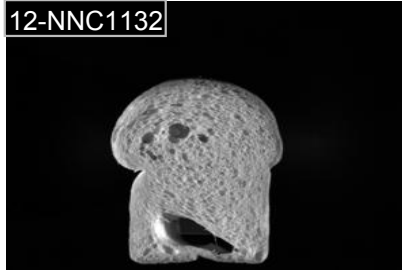
12-NNC1130



12-NNC1131



12-NNC1132



12-NNC1133sb



12-NNC1134





Hard Winter Wheat Quality Report 2012 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	45.3	Very Poor	72.8	27.4	Good	56.6		16,
Overland	53.0	Average	85.2	16.0	Very Poor	32.9		11,12,13,16,17,19,21,
Wesley	54.9	Good	88.1	39.5	Very Good	81.4		
Jerry	49.5	Poor	79.5	28.2	Good	58.1		
Lyman	53.4	Average	85.7	17.5	Poor	36.0	1AL	16,18,20,
NW05M6011-10-2	56.2	Good	90.2	14.7	Very Poor	30.4		16,19,20,21,
NW05M6011-22-3	57.6	Very Good	92.5	22.4	Average	46.2		
NE09495	53.8	Good	86.4	20.6	Poor	42.4		
NE09499	53.5	Average	85.9	19.4	Poor	40.1		5,16,18,20,21,
NE09637	38.5	Very Poor	61.9	14.5	Very Poor	29.9		1,6,8,11,12,13,16,17,18,19,21,
NH09655	48.4	Very Poor	77.7	28.3	Very Good	58.3		16,
NE08476	50.9	Average	81.8	23.2	Average	47.9		6,16,21,
NE08659	50.1	Poor	80.5	21.8	Poor	45.0		
NW07505	48.7	Very Poor	78.2	12.2	Very Poor	25.2		11,14,
NE08527	37.5	Very Poor	60.2	25.9	Average	53.5		6,8,
Warhorse	52.6	Average	84.4	23.6	Average	48.7		9,10,16,
MTS0819	50.5	Poor	81.2	21.9	Poor	45.2	1AL	15,
MTS0826	51.6	Average	82.9	38.5	Very Good	79.4		14,15,
MT0871	49.0	Poor	78.7	29.6	Good	61.1		9,
T180	45.9	Very Poor	73.7	27.3	Good	56.3		3,5,16,
T179	50.8	Poor	81.5	19.0	Poor	39.2		2,4,16,
LCH08-80	59.9	Very Good	96.2	10.9	Very Poor	22.4		12,15,16,21,
LCH08-12	48.6	Poor	78.0	16.1	Very Poor	33.2		6,16,
LCH10-13	55.1	Good	88.5	29.1	Good	60.0		16,
SD05085-1	62.3	Very Good	100.0	22.9	Average	47.3		
SD06158	48.2	Very Poor	77.4	48.5	Very Good	100.0		
SD07184	53.8	Average	86.4	41.5	Very Good	85.5		3,5,
SD07W083-4	56.2	Very Good	90.3	26.2	Average	54.0		4,16,
SD08080	54.1	Good	86.9	25.8	Good	53.2		
SD08200	54.8	Good	88.0	36.5	Very Good	75.2		

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 2012 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
SD09113	50.8	Poor	81.5	27.2	Good	56.2		2,16,21,
SD09192	55.4	Good	89.0	25.2	Average	52.0	1AL	3,9,16,21,
SD09227	56.0	Very Good	89.9	21.4	Poor	44.1		16,
SD09138	56.1	Very Good	90.1	15.5	Very Poor	31.9		16,

2012 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)				
Kharkof	58.9	11.7	0.3	24.8	5.7	2.48	0.25	41	21	MIXED	36--28--20--16--03
Overland	57.5	11.4	0.3	28.7	6.4	2.59	0.27	46	16	MIXED	21--31--29--19--03
Wesley	56.8	11.1	0.3	30.5	7.9	2.71	0.32	45	16	MIXED	21--35--25--19--03
Jerry	56.7	11.2	0.3	29.4	6.9	2.58	0.31	45	20	MIXED	26--32--22--20--03
Lyman	58.2	11.6	0.4	30.5	7.2	2.62	0.30	57	18	HARD	06--21--30--43--02
NW05M6011-10-2	60.0	11.4	0.3	30.8	7.3	2.68	0.30	54	17	HARD	10--23--28--39--02
NW05M6011-22-3	58.9	11.3	0.4	30.3	8.1	2.65	0.30	50	16	MIXED	11--32--32--25--03
NE09495	58.2	11.3	0.3	27.8	6.8	2.56	0.28	49	18	MIXED	18--28--27--27--03
NE09499	57.4	11.3	0.4	26.2	7.1	2.52	0.32	56	18	HARD	09--26--23--42--02
NE09637	54.6	12.5	0.4	27.1	7.4	2.47	0.28	5	17	SOFT	93--05--02--00--05
NH09655	57.3	12.6	0.4	28.1	6.7	2.58	0.28	47	19	MIXED	21--31--26--22--03
NE08476	56.3	12.8	0.3	28.5	6.6	2.57	0.28	31	15	SOFT	61--24--11--04--05
NE08659	58.5	12.9	0.4	31.1	8.1	2.60	0.31	55	21	MIXED	17--22--21--40--03
NW07505	58.9	12.5	0.4	29.6	7.9	2.61	0.31	54	20	MIXED	13--23--27--37--03
NE08527	57.8	12.4	0.3	29.2	6.8	2.58	0.30	27	21	SOFT	66--15--09--10--04
MTS0808	58.1	12.5	0.3	25.9	6.2	2.58	0.28	77	19	HARD	00--03--12--85--01
MTS0819	58.0	12.7	0.4	25.9	6.6	2.50	0.28	69	20	HARD	04--09--20--67--01
MTS0826	59.4	12.6	0.4	26.8	7.1	2.53	0.26	65	19	HARD	04--14--21--61--01
MT0871	56.7	12.3	0.4	24.8	5.9	2.55	0.29	76	21	HARD	02--05--15--78--01
T180	56.2	12.3	0.4	31.6	8.4	2.64	0.33	50	21	MIXED	21--30--22--27--03
T179	56.2	12.3	0.3	23.0	5.5	2.39	0.25	50	15	MIXED	15--24--34--27--03
LCH08-80	59.0	12.4	0.3	27.5	6.5	2.61	0.30	50	15	MIXED	12--33--31--24--03
LCH08-12	56.4	12.5	0.3	28.0	6.7	2.46	0.29	12	16	SOFT	90--06--02--02--05
LCH10-13	59.0	12.2	0.3	28.4	7.2	2.56	0.29	46	17	MIXED	23--31--25--21--03
SD05085-1	59.6	12.4	0.3	31.2	6.7	2.68	0.29	42	15	MIXED	28--34--23--15--03
SD06158	58.1	12.3	0.4	26.0	8.1	2.46	0.30	52	18	MIXED	14--23--27--36--03
SD07184	58.3	12.4	0.4	31.5	8.4	2.69	0.33	44	19	MIXED	30--29--23--18--03
SD07W083-4	57.5	12.2	0.4	26.0	6.6	2.43	0.26	52	16	HARD	10--28--30--32--02
SD08080	57.0	11.9	0.4	28.7	6.9	2.59	0.30	43	18	MIXED	33--27--24--16--03
SD08200	58.4	11.8	0.5	29.8	7.5	2.63	0.28	55	19	MIXED	11--24--29--36--03
SD09113	56.8	12.0	0.4	24.1	6.3	2.48	0.27	62	20	HARD	06--19--24--51--02
SD09192	58.8	12.3	0.3	33.7	8.4	2.72	0.31	50	18	MIXED	16--25--30--29--03
SD09227	58.7	11.9	0.4	25.7	6.9	2.56	0.28	60	18	HARD	06--14--29--51--02
SD09138	58.6	11.8	0.4	30.5	7.1	2.65	0.30	52	19	MIXED	16--23--29--32--03

2012 NRPN Intraregional Production Zone

Northern High Plains

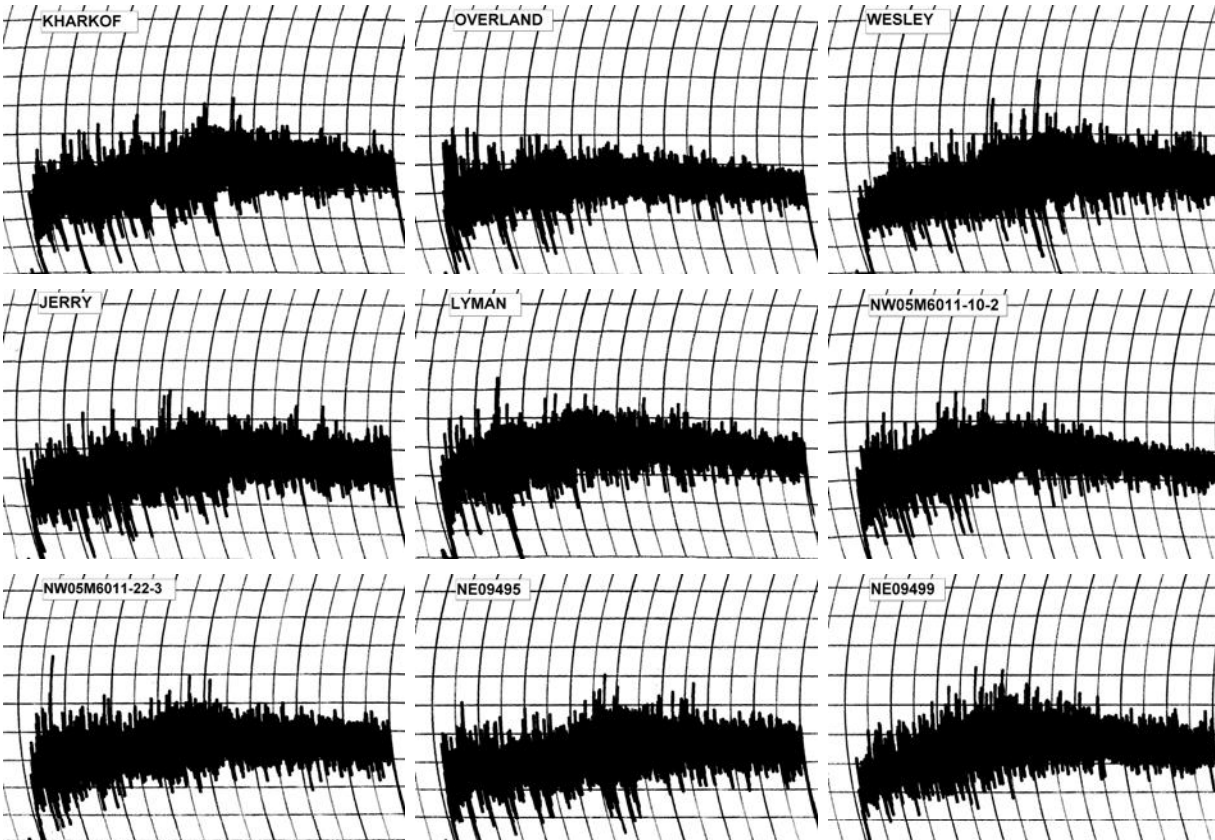
LINE	Wheat		Flour			Noodle Color					
	Protein (%)	Milling Yield (%)	Ash (%)	Protein (%)	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
Kharkof	11.6	67.0	0.45	10.1	0.488	83.23	-1.52	20.80	-9.86	0.88	4.10
Overland	9.8	70.2	0.47	8.2	0.576	83.15	-1.79	20.52	-10.20	1.17	2.93
Wesley	10.6	71.8	0.43	9.4	0.637	82.97	-1.72	21.12	-10.25	0.99	3.22
Jerry	11.2	69.9	0.44	9.8	0.661	82.03	-1.65	23.63	-10.73	1.11	3.26
Lyman	10.9	69.7	0.48	9.8	0.551	81.33	-1.95	25.35	-9.79	1.25	1.34
NW05M6011-10-2	11.1	69.7	0.45	9.6	0.554	83.01	-1.83	21.85	-10.23	1.20	3.11
NW05M6011-22-3	10.6	71.6	0.42	9.2	0.749	83.57	-1.85	20.20	-9.80	1.30	2.77
NE09495	10.4	70.7	0.44	8.9	0.613	82.72	-1.64	21.73	-9.51	0.92	1.87
NE09499	11.3	71.2	0.44	10.0	0.625	82.94	-1.73	22.37	-10.16	1.19	1.53
NE09637	10.3	64.5	0.41	8.4	0.585	86.06	-1.95	19.22	-9.60	0.71	4.15
NH09655	10.8	68.3	0.43	8.9	0.559	81.10	-1.71	24.08	-8.76	0.97	2.05
NE08476	10.9	69.8	0.44	9.4	0.705	81.10	-1.71	24.08	-9.38	1.13	1.46
NE08659	10.8	69.6	0.46	9.3	0.497	83.18	-1.49	21.35	-11.32	1.01	4.44
NW07505	9.7	68.4	0.46	8.5	0.550	83.14	-1.61	20.30	-11.33	1.44	3.21
NE08527	11.4	62.2	0.39	9.7	0.590	82.87	-1.68	22.38	-10.28	0.76	2.88
MTS0808	11.4	68.2	0.49	10.0	0.582	81.89	-1.66	23.33	-13.11	1.44	2.93
MTS0819	10.8	68.5	0.46	9.5	0.654	81.68	-2.23	24.36	-10.44	1.23	2.53
MTS0826	12.5	68.1	0.46	11.1	0.543	82.66	-1.72	23.12	-11.00	0.83	4.32
MT0871	11.4	68.2	0.50	10.4	0.228	80.96	-1.73	26.62	-7.04	1.27	1.57
T180	10.7	68.7	0.45	9.0	0.570	81.22	-1.50	20.15	-11.49	1.41	3.44
T179	10.7	69.3	0.44	9.5	0.673	82.18	-2.13	24.08	-7.89	1.36	0.82
LCH08-80	10.9	72.6	0.43	9.7	0.534	81.73	-1.88	23.78	-7.61	1.15	1.04
LCH08-12	10.7	68.2	0.37	9.2	0.558	83.38	-1.92	22.25	-8.52	1.07	1.82
LCH10-13	11.3	70.7	0.41	9.8	0.637	82.08	-1.60	22.03	-9.33	0.90	2.00
SD05085-1	10.9	72.5	0.37	9.5	0.531	83.05	-1.97	22.38	-8.18	1.12	1.45
SD06158	12.7	69.0	0.44	11.2	0.616	81.43	-1.23	20.58	-10.55	1.11	1.60
SD07184	11.7	70.9	0.39	10.5	0.606	83.56	-1.45	19.73	-10.16	0.88	2.98
SD07W083-4	12.2	72.1	0.44	10.8	0.807	81.98	-1.25	20.76	-13.20	1.54	0.57
SD08080	11.6	71.8	0.42	10.1	0.622	81.90	-0.88	19.92	-10.05	0.97	2.84
SD08200	11.7	70.6	0.43	10.3	0.610	82.89	-1.25	20.01	-11.22	1.03	4.46
SD09113	12.1	70.5	0.49	10.4	0.614	79.32	-1.49	25.98	-11.81	1.82	1.46
SD09192	10.5	71.6	0.50	9.4	0.600	81.81	-1.52	22.61	-10.71	1.28	2.66
SD09227	11.4	71.9	0.47	9.8	0.595	80.45	-1.63	25.31	-10.02	1.67	1.53
SD09138	10.8	72.1	0.48	9.4	0.571	81.00	-1.47	22.88	-10.46	1.51	2.09

2012 NRPN Intraregional Production Zone

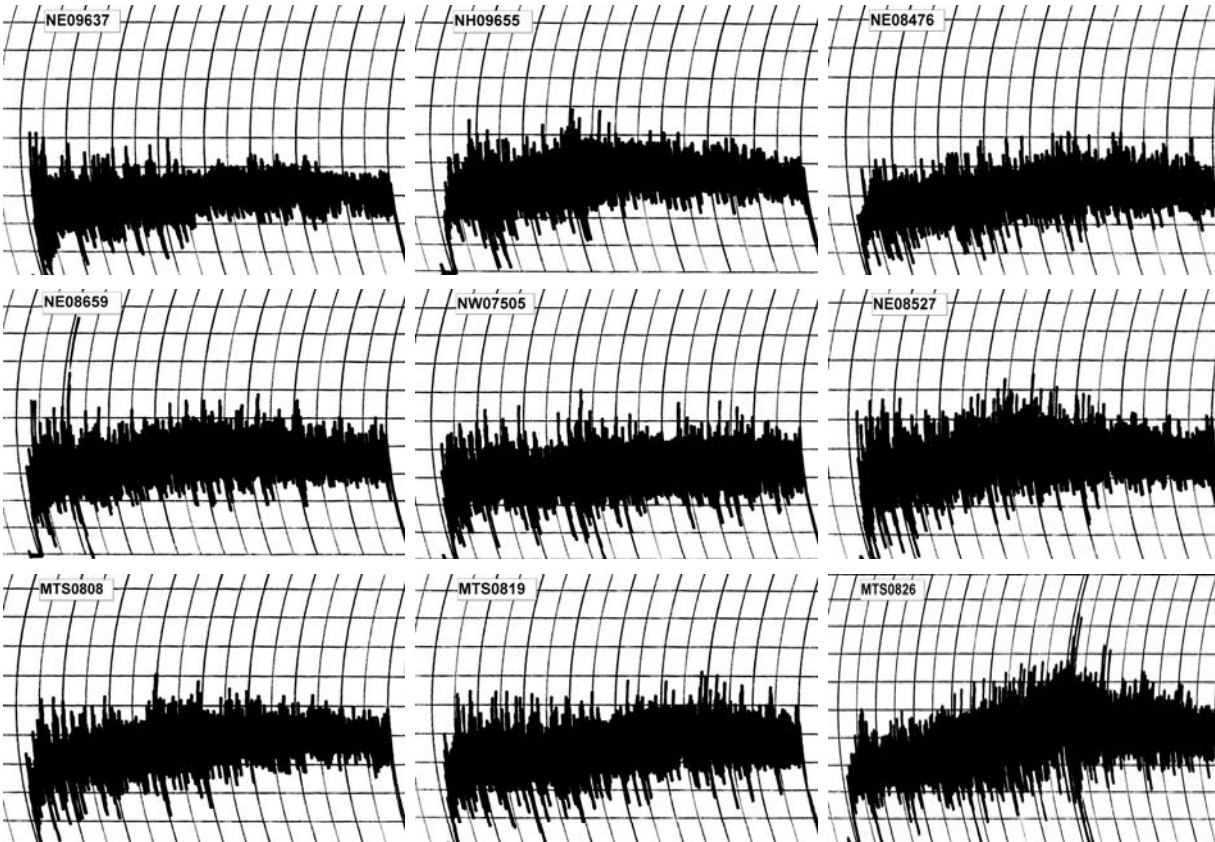
Northern High Plains

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	10.1	58.2	4.00	3.07	2
Overland	8.2	53.6	2.63	1.44	1
Wesley	9.4	57.1	4.50	3.08	3
Jerry	9.8	57.8	3.75	2.77	3
Lyman	9.8	56.4	3.25	2.40	2
NW05M6011-10-2	9.6	57.4	3.25	2.31	1
NW05M6011-22-3	9.2	56.8	3.75	2.50	3
NE09495	8.9	55.3	4.00	2.53	3
NE09499	10.0	58.2	3.50	2.67	2
NE09637	8.4	53.4	3.25	1.84	1
NH09655	8.9	54.8	3.50	2.20	1
NE08476	9.4	56.7	4.88	3.38	2
NE08659	9.3	56.3	4.38	2.94	3
NW07505	8.5	55.2	4.50	2.62	4
NE08527	9.7	55.1	4.00	2.90	3
MTS0808	10.0	57.6	3.75	2.85	2
MTS0819	9.5	57.4	5.38	3.79	4
MTS0826	11.1	60.0	6.13	5.49	4
MT0871	10.4	58.8	4.38	3.56	3
T180	9.0	56.9	3.00	1.92	2
T179	9.5	54.7	3.38	2.35	1
LCH08-80	9.7	55.1	2.13	1.54	1
LCH08-12	9.2	55.7	2.63	1.73	1
LCH10-13	9.8	57.3	3.63	2.68	2
SD05085-1	9.5	56.7	3.38	2.35	3
SD06158	11.2	60.2	4.50	4.07	3
SD07184	10.5	58.9	4.50	3.69	3
SD07W083-4	10.8	57.5	4.00	3.44	1
SD08080	10.1	58.3	4.38	3.40	3
SD08200	10.3	58.6	5.00	3.98	4
SD09113	10.4	57.4	3.13	2.54	1
SD09192	9.4	56.5	4.25	2.92	2
SD09227	9.8	55.7	4.00	2.95	2
SD09138	9.4	54.6	3.13	2.15	1

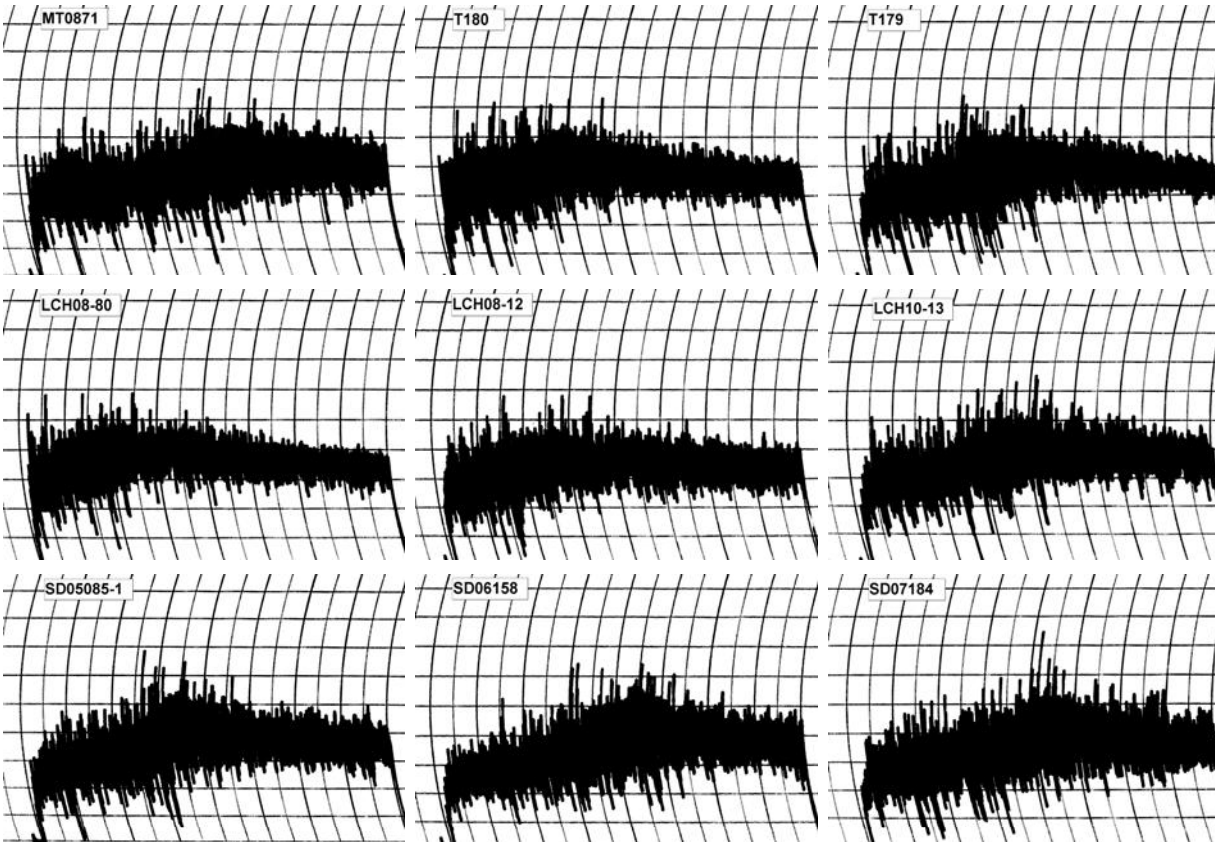
2012 NRPN Intraregional Production Zone Northern High Plains



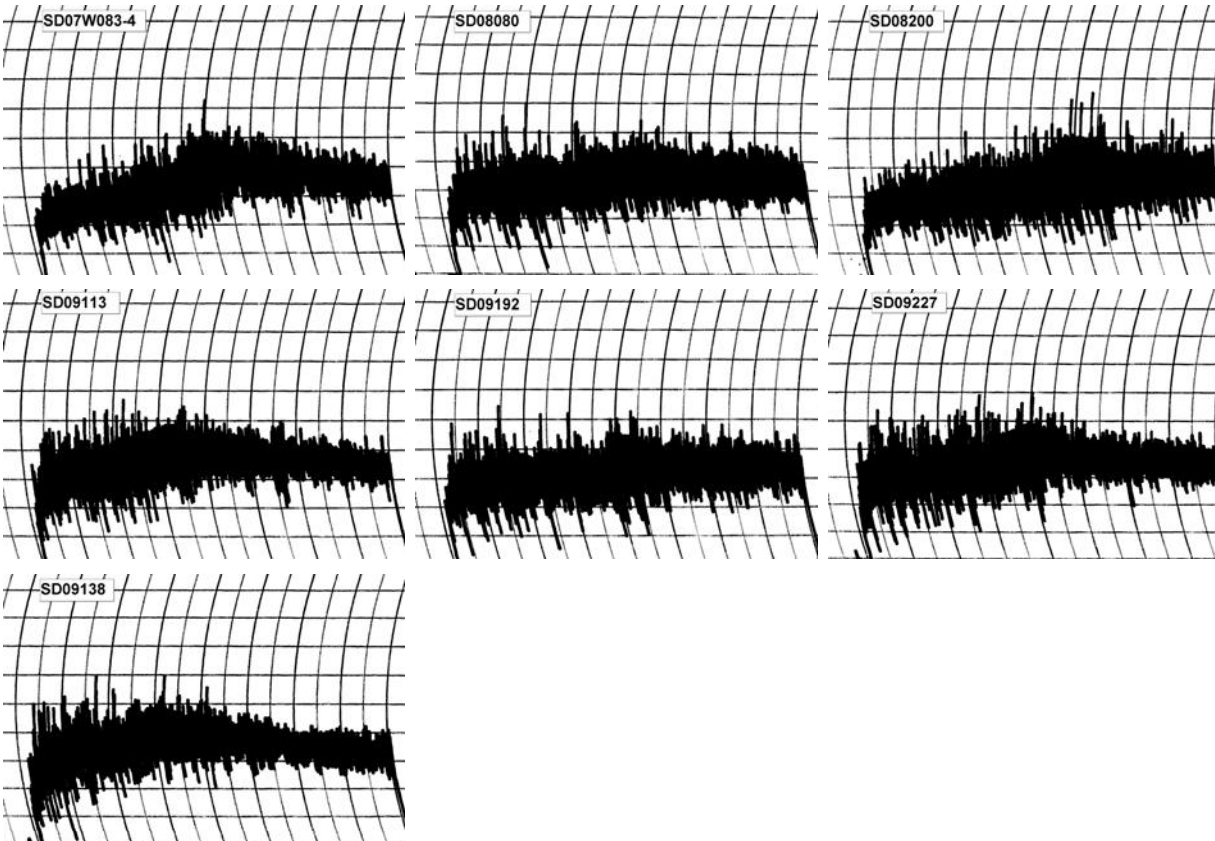
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2012 NRPN Intraregional Production Zone

Northern High Plains

Line	RVA							Pasting Temp (Deg. C)
	Stirring Number (RVU)	Peak Viscosity (RVU)	Trough Viscosity (RVU)	Breakdown (RVU)	Final Viscosity (RVU)	Set back (RVU)	Peak Time (min)	
Kharkof	162.25	252.17	181.00	71.17	302.67	121.67	6.47	
Overland	136.42	237.50	168.25	69.25	289.00	120.75	6.33	
Wesley	126.50	228.58	155.58	73.00	282.67	127.08	6.27	
Jerry	148.42	213.33	161.08	52.25	283.75	122.67	6.33	
Lyman	148.50	208.42	164.50	43.92	281.08	116.58	6.47	
NW05M6011-10-2	144.42	230.50	169.25	61.25	293.58	124.33	6.40	
NW05M6011-22-3	155.08	247.58	184.33	63.25	314.08	129.75	6.47	
NE09495	123.08	220.17	152.42	67.75	273.83	121.42	6.27	
NE09499	125.50	236.42	165.00	71.42	292.00	127.00	6.33	
NE09637	142.67	248.33	177.00	71.33	306.92	129.92	6.33	
NH09655	143.92	242.00	176.17	65.83	302.83	126.67	6.40	
NE08476	141.67	294.42	198.42	96.00	320.25	121.83	6.47	
NE08659	179.42	251.83	197.00	54.83	320.08	123.08	6.60	
NW07505	134.08	284.58	189.25	95.33	293.33	104.08	6.47	
NE08527	147.00	279.17	180.83	98.33	285.17	104.33	6.53	
MTS0808	163.25	223.33	169.17	54.17	293.50	124.33	6.40	
MTS0819	136.08	238.92	187.50	51.42	310.83	123.33	6.53	
MTS0826	157.75	204.25	164.83	39.42	292.83	128.00	6.33	
MT0871	136.50	228.08	161.75	66.33	287.33	125.58	6.33	
T180	133.25	245.83	167.58	78.25	271.83	104.25	6.47	
T179	134.58	280.25	184.00	96.25	313.67	129.67	6.40	
LCH08-80	132.17	270.92	173.67	97.25	292.75	119.08	6.33	
LCH08-12	136.92	227.33	161.08	66.25	295.08	134.00	6.20	
LCH10-13	136.00	266.50	197.00	69.50	319.42	122.42	6.60	
SD05085-1	126.33	223.33	156.42	66.92	281.67	125.25	6.20	
SD06158	163.75	210.67	175.50	35.17	298.83	123.33	6.53	
SD07184	166.75	248.58	192.25	56.33	316.08	123.83	6.53	
SD07W083-4	139.33	257.83	178.50	79.33	296.33	117.83	6.47	
SD08080	159.08	233.50	174.50	59.00	288.33	113.83	6.47	
SD08200	152.92	205.33	156.08	49.25	282.33	126.25	6.33	
SD09113	165.67	238.42	176.00	62.42	299.17	123.17	6.47	
SD09192	125.75	261.58	189.50	72.08	318.25	128.75	6.47	
SD09227	163.42	229.58	179.00	50.58	300.75	121.75	6.53	
SD09138	135.67	227.00	170.25	56.75	302.75	132.50	6.33	

2012 NRPN Intraregional Production Zone

Northern High Plains

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	10.1	60.2	5.63	4.32	168.9	6.8	3.5	755	5.1	63
Overland	8.2	53.8	3.75	2.05	162.8	6.1	2.0	645	4.4	62
Wesley	9.4	58.0	5.50	3.77	165.9	6.3	4.0	755	5.2	69
Jerry	9.8	59.5	5.38	3.98	168.0	6.7	3.2	750	5.0	64
Lyman	9.8	57.4	4.13	3.05	165.6	5.8	2.2	660	4.5	52
NW05M6011-10-2	9.6	57.6	3.50	2.49	166.0	5.9	1.5	640	4.4	50
NW05M6011-22-3	9.2	57.3	5.00	3.33	166.4	6.2	3.8	685	4.7	60
NE09495	8.9	56.2	5.75	3.64	164.4	6.3	2.8	715	4.9	67
NE09499	10.0	58.2	4.25	3.24	167.6	5.7	1.5	660	4.5	50
NE09637	8.4	52.4	4.50	2.55	162.1	5.8	1.5	625	4.4	57
NH09655	8.9	56.3	4.38	2.75	164.2	6.2	3.0	690	4.8	63
NE08476	9.4	56.8	6.50	4.51	166.2	6.5	2.0	750	5.2	68
NE08659	9.3	57.2	5.63	3.78	165.5	6.6	3.8	725	5.0	66
NW07505	8.5	57.3	7.88	4.59	165.4	6.2	2.2	680	4.6	65
NE08527	9.7	56.8	5.00	3.62	165.3	6.2	3.2	750	5.1	65
MTS0808	10.0	57.6	5.13	3.90	166.3	6.1	2.8	715	4.8	58
MTS0819	9.5	58.3	6.88	4.85	165.9	6.5	3.2	800	5.5	74
MTS0826	11.1	62.1	8.13	7.28	170.5	6.6	4.0	825	5.5	64
MT0871	10.4	61.2	5.75	4.67	169.8	6.5	3.5	790	5.4	65
T180	9.0	57.1	4.38	2.81	165.5	6.9	3.5	825	5.7	84
T179	9.5	56.1	4.50	3.12	164.9	5.9	2.5	700	4.8	60
LCH08-80	9.7	54.1	3.13	2.27	163.7	6.1	1.5	710	4.9	60
LCH08-12	9.2	55.6	4.25	2.80	164.7	6.2	3.8	695	4.8	62
LCH10-13	9.8	58.1	5.38	3.97	166.9	6.6	4.2	815	5.7	74
SD05085-1	9.5	58.2	5.13	3.57	166.9	6.1	3.8	700	4.8	60
SD06158	11.2	60.1	5.38	4.87	168.7	6.6	4.0	845	5.9	66
SD07184	10.5	59.2	5.75	4.71	167.5	6.2	4.0	775	5.3	63
SD07W083-4	10.8	57.1	5.13	4.41	165.7	6.2	3.8	780	5.4	61
SD08080	10.1	58.3	4.50	3.49	166.9	6.2	3.5	755	5.2	63
SD08200	10.3	58.1	7.00	5.57	166.6	6.5	4.0	775	5.3	64
SD09113	10.4	57.1	4.38	3.56	165.8	6.5	2.0	745	5.1	59
SD09192	9.4	57.2	6.63	4.55	165.7	6.5	2.0	765	5.2	70
SD09227	9.8	57.0	4.13	3.04	165.8	6.3	2.5	725	4.9	61
SD09138	9.4	55.0	3.50	2.40	163.9	6.1	2.2	720	4.9	64

2012 NRPN Intraregional Production Zone Northern High Plains

12-NNH1101



12-NNH1102



12-NNH1103



12-NNH1104



12-NNH1105



12-NNH1106



12-NNH1107



12-NNH1108

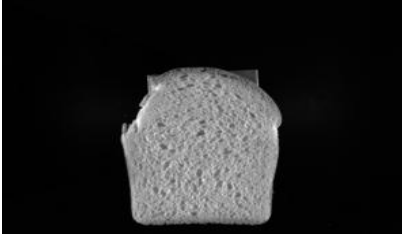


12-NNH1109



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12-NNH1110



12-NNH1111



12-NNH1112



12-NNH1113



12-NNH1114



12-NNH1115



12-NNH1116



12-NNH1117



12-NNH1118



2012 NRPN Intraregional Production Zone Northern High Plains

12-NNH1119



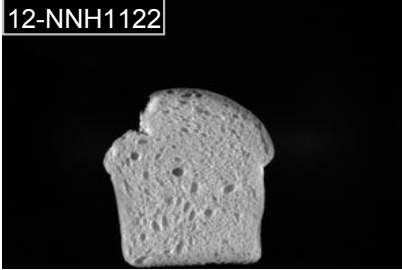
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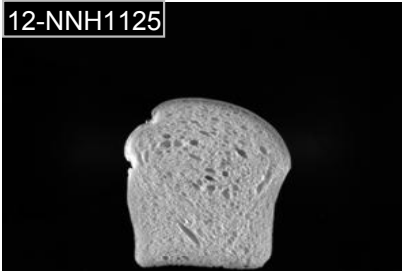
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12-NNH1125



12-NNH1126



12-NNH1127



2012 NRPN Intraregional Production Zone Northern High Plains

12-NNH1128



12-NNH1129



12-NNH1130



12-NNH1131



12-NNH1132



12-NNH1133



12-NNH1134





Hard Winter Wheat Quality Report 2012 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	43.9	Very Poor	70.9	47.4	Poor	60.9		16,
Overland	57.9	Good	93.5	28.7	Very Poor	36.9		16,
Wesley	58.2	Good	94.0	73.4	Very Good	94.3		16,
Jerry	53.1	Poor	85.7	77.8	Very Good	100.0		3,
Lyman	60.6	Very Good	97.9	37.3	Very Poor	47.9	1AL	16,21,
NW05M6011-10-2	58.9	Good	95.1	31.0	Very Poor	39.8		16,18,
NW05M6011-22-3	53.3	Average	86.1	44.7	Poor	57.5		
NE09495	53.8	Average	86.9	51.0	Average	65.5		11,12,13,17,
NE09499	50.5	Poor	81.6	60.2	Good	77.4		16,
NE09637	30.5	Very Poor	49.2	42.5	Poor	54.6		6,8,10,11,12,13,16,17,
NH09655	53.3	Poor	86.0	53.9	Average	69.2		16,
NE08476	48.5	Very Poor	78.4	56.2	Good	72.2		
NE08659	59.3	Good	95.8	58.7	Good	75.4		16,
NW07505	53.1	Poor	85.8	54.2	Average	69.7		14,15,
NE08527	30.1	Very Poor	48.6	55.5	Good	71.3		6,8,10,16,
Warhorse	54.7	Average	88.3	46.8	Average	60.1		6,16,
MTS0819	51.5	Poor	83.1	66.9	Very Good	85.9	1AL	
MTS0826	60.9	Very Good	98.3	69.9	Very Good	89.8		15,
MT0871	51.6	Poor	83.3	69.2	Very Good	89.0		1,9,
T180	50.5	Very Poor	81.5	45.4	Poor	58.4		16,
T179	49.8	Very Poor	80.4	51.7	Average	66.4		1,2,4,16,
LCH08-80	60.3	Very Good	97.3	26.1	Very Poor	33.6		15,16,19,20,21,
LCH08-12	38.6	Very Poor	62.3	54.3	Average	69.8		4,6,
LCH10-13	61.9	Very Good	100.0	44.1	Poor	56.7		16,
SD05085-1	59.7	Good	96.4	62.5	Good	80.3		
SD06158	52.3	Poor	84.4	47.1	Poor	60.6		
SD07184	57.2	Average	92.4	71.2	Very Good	91.5		
SD07W083-4	58.8	Good	95.0	57.5	Good	73.9		12,16,17,
SD08080	61.8	Very Good	99.7	40.7	Poor	52.3		16,
SD08200	57.2	Average	92.3	47.4	Average	60.9		

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 2012 NRPN-NP

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
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
SD09113	55.2	Average	89.1	31.6	Very Poor	40.6		9,12,16,17,19,20,21,
SD09192	55.5	Average	89.5	58.7	Good	75.5	1AL	3,5,
SD09227	57.5	Good	92.9	28.5	Very Poor	36.7		16,20,
SD09138	60.1	Very Good	97.0	28.3	Very Poor	36.4		15,16,18,19,20,21,

2012 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)				
Kharkof	60.4	12.2	0.6	27.3	7.3	2.53	0.28	45	20	MIXED	27--29--21--23--03
Overland	59.8	12.3	0.5	30.5	8.3	2.60	0.29	66	17	HARD	03--10--20--67--01
Wesley	58.6	11.1	0.7	30.2	8.6	2.63	0.33	61	16	HARD	04--15--22--59--01
Jerry	57.7	11.7	0.5	29.3	9.3	2.52	0.35	60	18	HARD	08--16--20--56--02
Lyman	60.3	12.0	0.5	32.4	8.9	2.68	0.32	70	15	HARD	01--06--15--78--01
NW05M6011-10-2	61.2	12.1	0.5	30.6	9.2	2.64	0.33	69	15	HARD	01--05--19--75--01
NW05M6011-22-3	58.3	11.7	0.5	25.0	7.7	2.46	0.29	67	15	HARD	01--07--23--69--01
NE09495	60.0	12.3	0.4	25.8	7.8	2.48	0.31	69	16	HARD	02--06--19--73--01
NE09499	57.2	11.3	0.6	24.0	7.4	2.42	0.31	67	17	HARD	02--08--21--69--01
NE09637	58.0	10.9	0.8	28.0	8.2	2.46	0.30	18	21	SOFT	79--12--05--04--05
NH09655	58.5	11.3	0.7	25.9	8.1	2.50	0.34	70	16	HARD	02--04--19--75--01
NE08476	59.2	10.5	0.8	26.2	8.3	2.49	0.31	58	19	HARD	10--19--21--50--02
NE08659	58.6	10.0	0.4	35.4	7.2	2.84	0.27	50	14	HARD	10--33--35--22--02
NW07505	59.8	11.5	0.6	28.6	8.7	2.57	0.33	74	17	HARD	01--05--13--81--01
NE08527	57.8	11.0	0.6	26.2	8.0	2.44	0.31	33	21	MIXED	57--22--07--14--03
MTS0808	58.2	10.4	0.8	24.3	7.2	2.52	0.29	87	15	HARD	00--01--03--96--01
MTS0819	57.6	11.7	0.4	24.5	8.4	2.41	0.30	80	17	HARD	00--02--10--88--01
MTS0826	60.5	11.7	0.5	29.9	8.4	2.64	0.33	69	16	HARD	02--05--21--72--01
MT0871	56.0	11.3	0.5	23.7	6.8	2.45	0.28	75	17	HARD	01--04--11--84--01
T180	58.3	10.6	0.7	31.5	8.7	2.66	0.34	69	16	HARD	02--09--16--73--01
T179	56.7	11.1	0.6	21.8	6.7	2.33	0.27	66	18	HARD	02--12--20--66--01
LCH08-80	59.5	11.3	0.6	24.3	6.0	2.46	0.28	74	15	HARD	01--03--12--84--01
LCH08-12	57.1	11.5	0.6	24.5	7.8	2.31	0.30	24	17	SOFT	73--17--07--03--05
LCH10-13	61.0	11.1	0.6	28.1	6.7	2.55	0.27	67	16	HARD	03--07--20--70--01
SD05085-1	60.7	11.2	0.6	29.8	8.5	2.63	0.33	64	18	HARD	05--09--22--64--01
SD06158	59.1	10.5	0.8	26.5	8.4	2.46	0.31	59	16	HARD	06--16--27--51--02
SD07184	59.1	10.5	0.6	29.2	8.5	2.62	0.31	62	17	HARD	06--10--27--57--02
SD07W083-4	59.6	10.0	0.8	26.5	7.4	2.40	0.28	62	17	HARD	06--12--23--59--02
SD08080	59.3	8.6	1.1	30.3	7.8	2.61	0.29	61	18	HARD	07--13--21--59--02
SD08200	59.3	9.1	1.1	28.5	8.7	2.56	0.34	67	16	HARD	02--07--24--67--01
SD09113	57.6	9.5	1.1	24.0	7.2	2.46	0.30	72	16	HARD	02--03--13--82--01
SD09192	59.8	9.8	1.0	31.8	10.1	2.64	0.38	70	15	HARD	01--06--13--80--01
SD09227	59.4	9.8	0.9	24.6	7.4	2.50	0.30	76	18	HARD	03--03--09--85--01
SD09138	60.1	9.8	0.9	29.6	7.8	2.62	0.32	68	15	HARD	00--08--16--76--01

2012 NRPN Intraregional Production Zone

Northern Plains

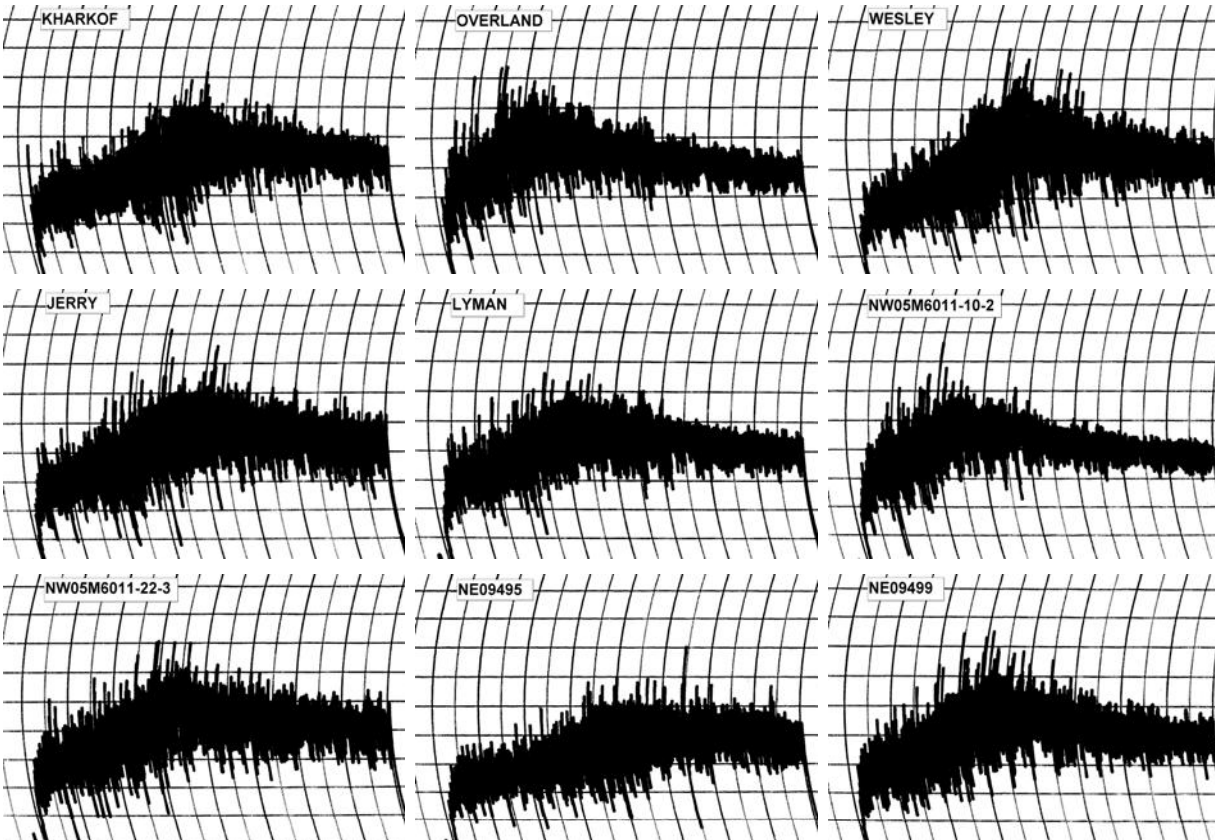
LINE	Wheat		Flour			Noodle Color					
	Protein (%)	Milling Yield (%)	Ash (%)	Protein (%)	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
Kharkof	15.0	63.9	0.37	13.2	0.476	82.69	-1.31	22.83	-12.03	0.86	1.90
Overland	13.8	70.3	0.42	12.3	0.511	80.93	-0.90	22.47	-11.52	0.82	2.13
Wesley	14.7	71.1	0.38	13.4	0.570	80.55	-1.09	23.57	-12.13	0.93	0.02
Jerry	14.1	71.2	0.41	13.3	0.573	82.14	-0.93	24.56	-13.59	0.88	2.67
Lyman	14.4	70.0	0.41	13.1	0.546	80.83	-1.06	24.61	-11.54	0.96	2.83
NW05M6011-10-2	14.9	69.9	0.41	13.2	0.479	82.70	-1.44	23.18	-13.36	1.16	3.56
NW05M6011-22-3	14.5	68.4	0.40	13.1	0.649	82.65	-1.15	21.99	-13.97	0.84	2.72
NE09495	13.6	68.7	0.44	12.0	0.511	80.79	-1.24	24.12	-10.68	0.98	0.50
NE09499	14.5	68.2	0.40	13.1	0.561	82.30	-1.03	22.77	-12.01	1.03	2.13
NE09637	13.9	57.1	0.34	11.8	0.578	85.86	-1.22	17.94	-13.56	0.62	6.49
NH09655	14.2	68.4	0.40	12.6	0.559	81.36	-1.16	24.31	-12.09	1.12	3.16
NE08476	14.6	67.9	0.41	13.6	0.656	81.63	-1.31	23.33	-12.68	1.44	1.88
NE08659	14.3	69.1	0.42	12.6	0.482	80.60	-1.17	23.77	-12.37	1.38	2.05
NW07505	14.1	67.3	0.39	12.3	0.505	82.12	-0.95	21.72	-13.00	1.10	3.17
NE08527	14.6	60.0	0.40	12.7	0.536	82.14	-1.88	25.16	-11.85	1.23	2.47
MTS0808	15.0	66.7	0.40	13.4	0.539	81.27	-1.40	24.17	-14.49	1.42	2.24
MTS0819	14.5	67.7	0.39	13.0	0.679	80.38	-1.58	25.43	-13.22	1.31	2.86
MTS0826	14.6	70.6	0.37	13.1	0.446	81.98	-1.84	24.73	-12.25	1.22	2.50
MT0871	15.4	69.9	0.49	13.8	0.231	80.60	-1.03	26.37	-11.45	1.37	3.74
T180	14.6	65.6	0.39	12.6	0.563	80.18	-1.03	22.21	-14.55	1.40	0.93
T179	15.5	68.9	0.42	14.0	0.713	79.76	-1.44	25.66	-12.94	1.59	1.11
LCH08-80	14.3	70.4	0.42	12.8	0.528	81.79	-1.10	21.34	-13.26	1.41	5.52
LCH08-12	14.4	63.7	0.34	12.4	0.470	83.55	-1.78	23.19	-10.65	1.05	1.51
LCH10-13	14.5	70.1	0.36	12.6	0.552	80.80	-1.14	22.23	-11.99	1.05	2.23
SD05085-1	14.4	71.0	0.37	12.6	0.500	82.19	-1.67	23.55	-10.86	1.13	1.88
SD06158	14.4	68.6	0.37	13.1	0.539	81.83	-0.81	21.63	-11.85	0.54	1.59
SD07184	14.7	70.0	0.35	13.4	0.554	83.09	-1.43	20.54	-13.69	0.92	2.98
SD07W083-4	14.1	71.7	0.39	12.6	0.721	82.28	-1.09	20.17	-14.84	1.42	2.29
SD08080	14.3	72.5	0.37	13.0	0.560	81.75	-0.96	21.43	-11.45	1.33	0.33
SD08200	14.0	69.8	0.36	12.4	0.564	81.66	-1.29	21.92	-13.10	1.50	2.83
SD09113	14.5	70.6	0.45	12.8	0.658	79.57	-1.39	26.30	-13.87	1.45	1.38
SD09192	14.0	69.2	0.43	12.2	0.590	82.02	-1.16	22.48	-13.34	1.13	3.46
SD09227	14.3	70.8	0.42	12.8	0.534	80.68	-1.07	23.19	-13.53	1.26	3.70
SD09138	14.8	70.2	0.41	12.9	0.539	81.69	-1.14	21.96	-12.95	0.99	3.03

2012 NRPN Intraregional Production Zone

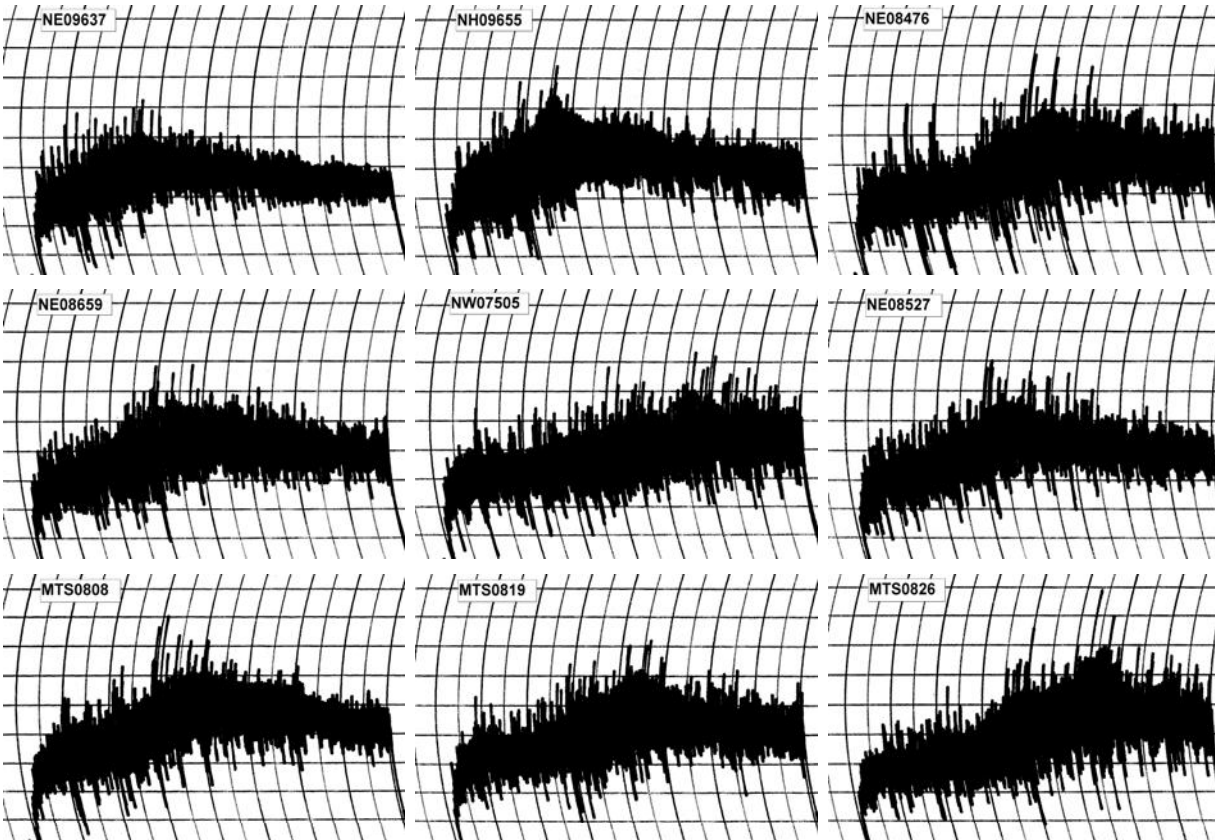
Northern Plains

Line	Flour Protein (%)	Absorption (%)	Mixograph		
			As-Is (min)	Corrected (min)	Tolerance
Kharkof	13.2	63.0	3.88	3.88	2
Overland	12.3	62.4	2.38	2.38	1
Wesley	13.4	64.2	3.75	3.75	2
Jerry	13.3	64.2	3.88	3.88	4
Lyman	13.1	63.3	3.13	3.13	1
NW05M6011-10-2	13.2	63.4	2.50	2.50	1
NW05M6011-22-3	13.1	64.2	3.50	3.50	3
NE09495	12.0	61.4	4.50	4.50	3
NE09499	13.1	64.2	3.25	3.25	2
NE09637	11.8	60.0	2.50	2.43	1
NH09655	12.6	62.5	2.50	2.50	2
NE08476	13.6	65.2	4.50	4.50	4
NE08659	12.6	64.9	3.50	3.50	2
NW07505	12.3	63.4	5.63	5.63	5
NE08527	12.7	64.1	3.63	3.63	2
MTS0808	13.4	65.3	3.88	3.88	2
MTS0819	13.0	63.6	4.50	4.50	4
MTS0826	13.1	64.7	5.63	5.63	4
MT0871	13.8	65.0	4.13	4.13	4
T180	12.6	65.5	2.63	2.63	2
T179	14.0	64.4	3.00	3.00	1
LCH08-80	12.8	63.3	1.75	1.75	1
LCH08-12	12.4	62.2	3.13	3.13	3
LCH10-13	12.6	64.1	3.25	3.25	2
SD05085-1	12.6	62.4	3.50	3.50	3
SD06158	13.1	63.7	4.50	4.50	4
SD07184	13.4	65.3	3.88	3.88	4
SD07W083-4	12.6	61.9	4.00	4.00	2
SD08080	13.0	63.7	2.88	2.88	2
SD08200	12.4	62.5	4.88	4.88	5
SD09113	12.8	62.2	2.88	2.88	1
SD09192	12.2	62.3	4.00	4.00	4
SD09227	12.8	62.3	2.63	2.63	2
SD09138	12.9	62.4	2.13	2.13	1

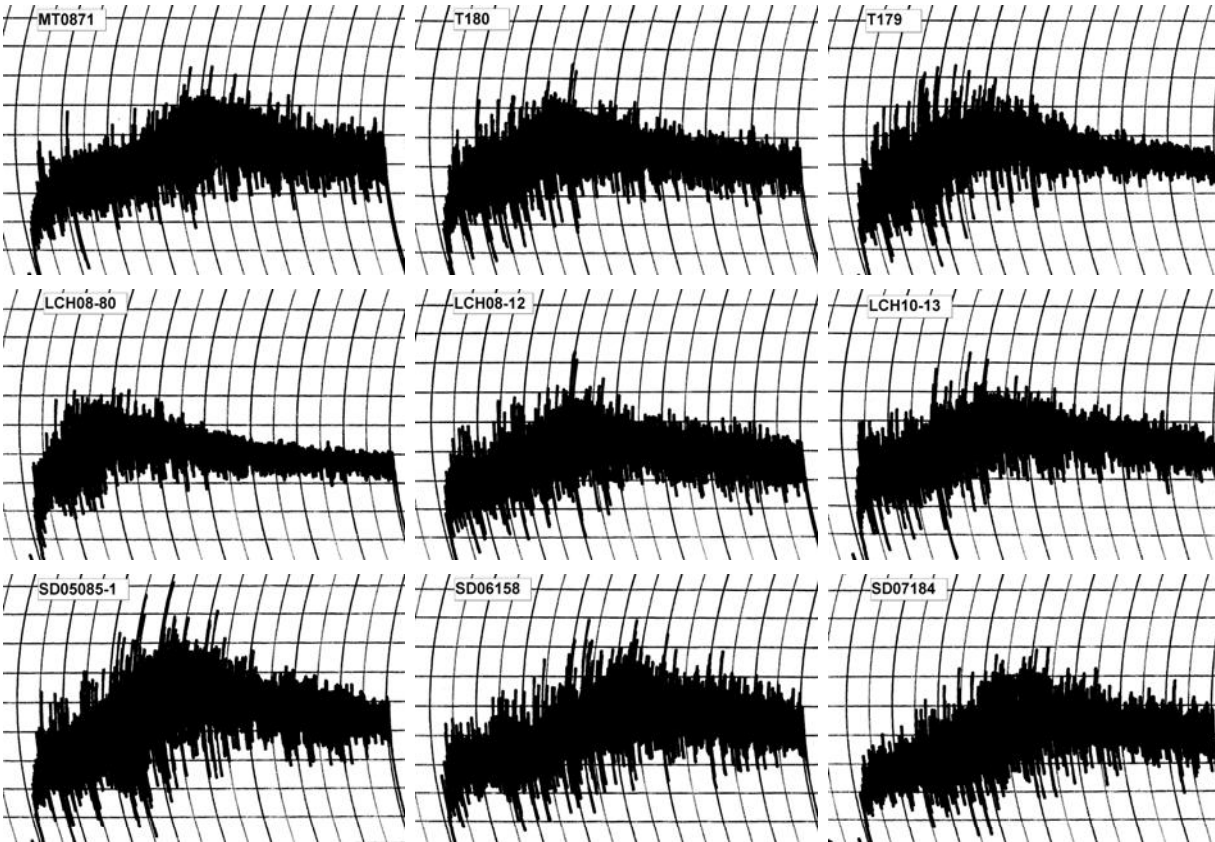
2012 NRPN Intraregional Production Zone Northern Plains



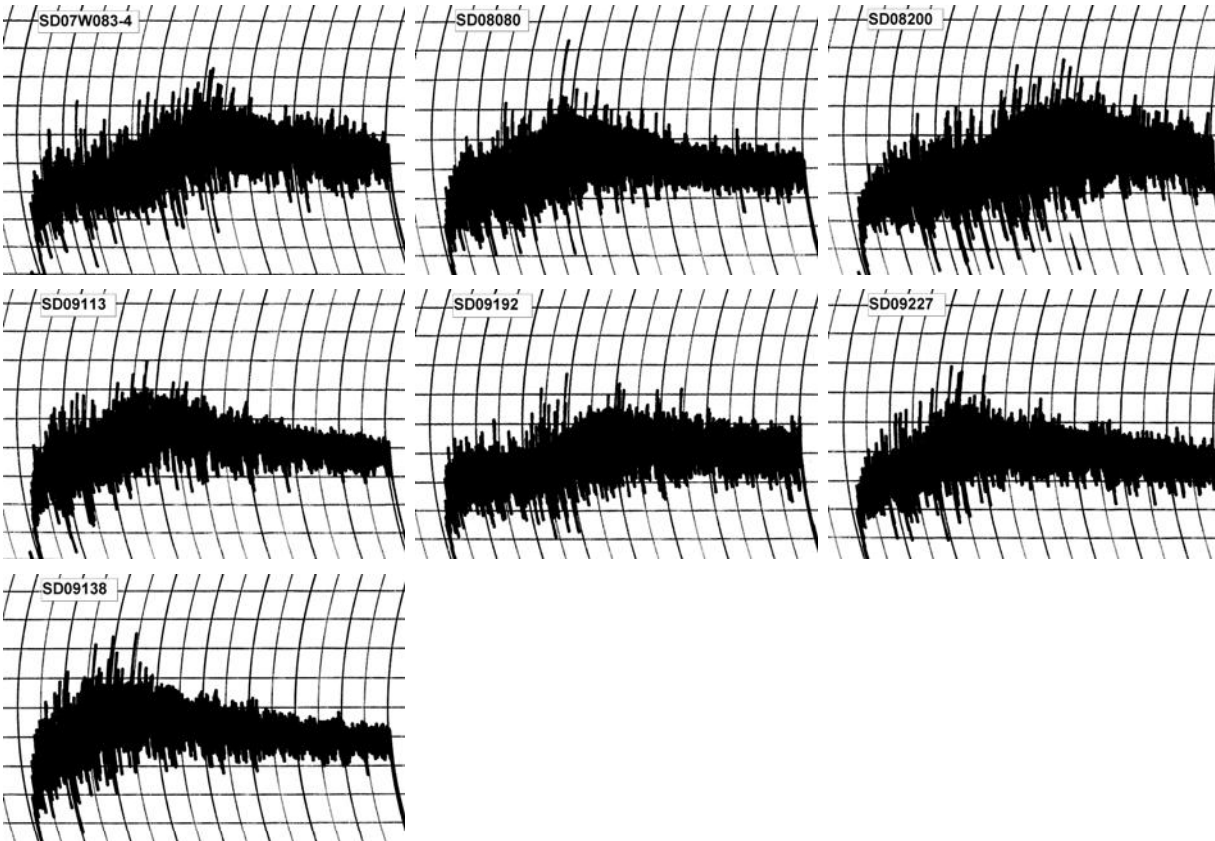
2012 NRPN Intraregional Production Zone Northern Plains



2012 NRPN Intraregional Production Zone Northern Plains



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2012 NRPN Intraregional Production Zone

Northern Plains

Line	RVA							Pasting Temp (Deg. C)
	Stirring Number (RVU)	Peak Viscosity (RVU)	Trough Viscosity (RVU)	Breakdown (RVU)	Final Viscosity (RVU)	Set back (RVU)	Peak Time (min)	
Kharkof	64.75	235.67	183.00	52.67	298.83	115.83	6.53	
Overland	145.92	206.75	160.50	46.25	282.17	121.67	6.33	
Wesley	140.83	198.08	154.42	43.67	278.50	124.08	6.33	
Jerry	156.92	198.00	165.92	32.08	282.50	116.58	6.47	
Lyman	150.08	181.00	154.50	26.50	267.83	113.33	6.40	
NW05M6011-10-2	155.42	211.58	163.83	47.75	276.58	112.75	6.47	
NW05M6011-22-3	162.00	217.17	176.33	40.83	293.92	117.58	6.53	
NE09495	134.00	187.50	142.42	45.08	265.50	123.08	6.20	
NE09499	140.33	210.83	163.33	47.50	289.25	125.92	6.33	
NE09637	163.08	247.08	185.92	61.17	312.00	126.08	6.40	
NH09655	147.50	217.00	167.50	49.50	293.92	126.42	6.40	
NE08476	137.50	272.67	198.00	74.67	316.92	118.92	6.53	
NE08659	178.58	236.92	195.08	41.83	312.75	117.67	6.67	
NW07505	143.25	282.92	190.08	92.83	293.58	103.50	6.53	
NE08527	148.08	268.92	178.33	90.58	279.33	101.00	6.53	
MTS0808	161.08	219.33	175.17	44.17	292.83	117.67	6.53	
MTS0819	150.42	227.17	179.75	47.42	299.17	119.42	6.53	
MTS0826	151.08	199.42	166.83	32.58	289.08	122.25	6.40	
MT0871	152.00	217.33	164.92	52.42	286.33	121.42	6.40	
T180	146.83	237.67	172.33	65.33	279.33	107.00	6.53	
T179	150.83	226.42	172.50	53.92	292.92	120.42	6.47	
LCH08-80	132.25	232.92	164.17	68.75	288.08	123.92	6.33	
LCH08-12	141.50	213.25	165.58	47.67	301.17	135.58	6.27	
LCH10-13	159.25	243.75	190.50	53.25	308.75	118.25	6.53	
SD05085-1	145.42	203.58	157.08	46.50	282.08	125.00	6.33	
SD06158	158.42	198.83	169.17	29.67	285.42	116.25	6.53	
SD07184	163.75	220.00	177.08	42.92	294.25	117.17	6.53	
SD07W083-4	156.00	240.75	178.67	62.08	294.17	115.50	6.53	
SD08080	162.17	211.83	171.08	40.75	281.25	110.17	6.47	
SD08200	151.50	195.00	157.08	37.92	283.42	126.33	6.40	
SD09113	159.17	223.25	175.33	47.92	295.25	119.92	6.47	
SD09192	145.83	240.17	181.75	58.42	314.92	133.17	6.40	
SD09227	159.25	212.92	166.17	46.75	287.92	121.75	6.40	
SD09138	148.00	208.33	164.83	43.50	291.33	126.50	6.40	

2012 NRPN Intraregional Production Zone

Northern Plains

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	13.2	63.1	5.00	5.00	172.0	7.5	5.5	975	6.5	66
Overland	12.3	62.9	2.88	2.88	172.0	7.0	3.5	830	5.5	57
Wesley	13.4	64.1	5.00	5.00	172.6	7.2	6.0	970	6.6	65
Jerry	13.3	64.4	4.88	4.88	172.5	7.5	6.0	1000	6.7	68
Lyman	13.1	62.6	3.38	3.38	171.8	6.7	2.0	835	5.6	53
NW05M6011-10-2	13.2	63.7	2.75	2.75	172.4	6.3	3.5	855	5.7	54
NW05M6011-22-3	13.1	64.0	4.38	4.38	172.9	7.0	5.5	925	6.2	62
NE09495	12.0	61.4	5.38	5.38	170.0	6.8	4.0	850	5.8	61
NE09499	13.1	64.1	3.88	3.88	172.5	6.8	5.0	905	6.0	60
NE09637	11.8	60.3	3.63	3.53	169.0	6.8	4.0	815	5.5	59
NH09655	12.6	62.8	3.63	3.63	171.9	6.9	5.0	865	5.8	59
NE08476	13.6	65.2	6.00	6.00	173.4	7.0	3.0	950	6.3	61
NE08659	12.6	64.9	4.88	4.88	173.7	7.1	4.0	875	5.7	60
NW07505	12.3	63.5	7.50	7.50	172.2	7.3	4.0	990	6.6	74
NE08527	12.7	64.1	4.88	4.88	172.7	7.2	3.0	905	6.1	62
MTS0808	13.4	63.9	4.13	4.13	170.8	7.2	3.5	975	6.5	65
MTS0819	13.0	63.5	5.38	5.38	172.1	7.2	4.0	1055	7.1	76
MTS0826	13.1	63.9	5.88	5.88	172.3	7.4	6.0	995	6.7	69
MT0871	13.8	63.7	4.63	4.63	172.2	7.7	4.0	1050	7.1	69
T180	12.6	65.5	3.88	3.88	174.1	7.7	3.5	990	6.5	72
T179	14.0	63.5	3.38	3.38	172.9	6.8	4.0	880	5.8	53
LCH08-80	12.8	62.6	2.63	2.63	171.6	6.7	1.0	775	5.2	48
LCH08-12	12.4	62.7	4.38	4.38	171.1	7.1	4.0	875	5.9	61
LCH10-13	12.6	64.0	4.38	4.38	172.5	7.1	3.5	945	6.4	67
SD05085-1	12.6	62.9	4.88	4.88	171.3	7.1	5.0	885	6.0	61
SD06158	13.1	64.0	5.88	5.88	173.0	7.6	4.5	990	6.7	68
SD07184	13.4	64.9	4.88	4.88	173.5	7.1	5.0	960	6.4	64
SD07W083-4	12.6	60.9	4.88	4.88	169.5	7.2	4.0	935	6.4	66
SD08080	13.0	63.9	4.38	4.38	172.1	7.0	4.5	900	6.1	60
SD08200	12.4	63.5	6.88	6.88	171.6	6.9	3.0	900	6.1	64
SD09113	12.8	60.3	3.38	3.38	169.4	6.8	2.0	775	5.2	49
SD09192	12.2	62.5	5.25	5.25	171.0	6.9	4.0	910	6.1	66
SD09227	12.8	62.6	3.00	3.00	171.5	6.8	2.5	800	5.3	51
SD09138	12.9	62.1	2.63	2.63	170.6	6.4	2.0	780	5.2	49

2012 NRPN Intraregional Production Zone Northern Plains

12-NNP1101



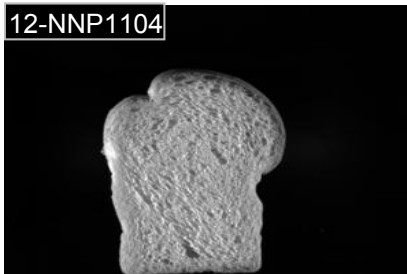
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12-NNP1104



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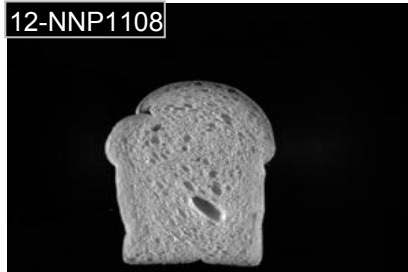
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12-NNP1108



12-NNP1109



2012 NRPN Intraregional Production Zone Northern Plains

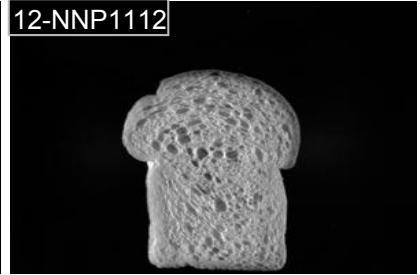
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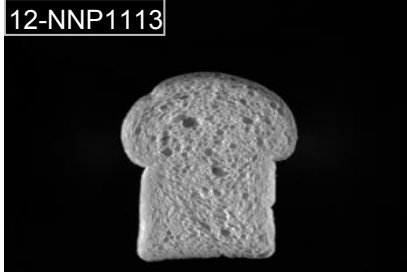
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12-NNP1112



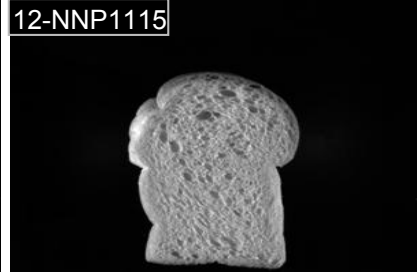
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12-NNP1114



12-NNP1115



12-NNP1116



12-NNP1117



12-NNP1118



2012 NRPN Intraregional Production Zone Northern Plains

12-NNP1119



12-NNP1120



12-NNP1121



12-NNP1122



12-NNP1123



12-NNP1124



12-NNP1125



12-NNP1126



12-NNP1127



2012 NRPN Intraregional Production Zone Northern Plains

12-NNP1128



12-NNP1129



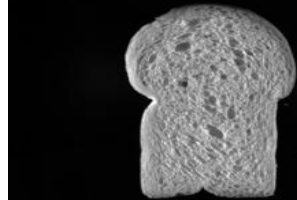
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12-NNP1131



12-NNP1132



12-NNP1133



12-NNP1134



Southern Regional Performance Nursery

2012 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	KS07HW5-1-1-3	KS025580(TREGO/CO960293)/KS02HW119(95HW431(RB/89H33)/JGR8W	KSU-Hays
6	KS07HW5-1-1-4	KS025580(TREGO/CO960293)/KS02HW119(95HW431(RB/89H33)/JGR8W	KSU-Hays
7	KS07HW5-1-1-5	KS025580(TREGO/CO960293)/KS02HW119(95HW431(RB/89H33)/JGR8W	KSU-Hays
8	OK07214	OK93P656-RMH3299/OK99711 F4:12	OSU
9	OK08328	GK Keve/Ok101//OK93P656-RMH3299 F4:11	OSU
10	OK08229	TX98D1170/OK98697 F4:11	OSU
11	OK09634	OK95616-98-6756/Overley F4:10	OSU
12	OK08707W	OK98G508W/Lakin//Trego F4:11	OSU
13	OCW00S063S-1B	(KAUZ/STAR)//U1254-1-5-1-1/TX89V4213 F5:12	OSU
14	BL11001	CO980829/Wesley	Bayer CropScience
15	BL11002	Lakin/Ok102	Bayer CropScience
16	CO05W111	CO980829/TAM 111	CSU
17	CO07W245	KS01HW152-1/TAM 111	CSU
18	CO07W722-F5	KS02HW89-1(TREGO*2/JGR8W)/BC97ROM-41W	CSU
19	HV9W07-1784	KS940786-7//G980039/G990671	WestBred Haven
20	HV9W07-1942	JAGALENE//W99-331/X940786-6-4	WestBred Haven
21	HV9W07-1028	TX97V2838//KS940786-7/X940793-10-4	WestBred Haven
22	TX07A001505	T107//TX98V3620/Ctk78/3/TX87V1233/4/N87V106//TX86V1540/T200	TAMU
23	TX03A0563-07AZHR247	X96V107/OGALLALA	TAMU
24	TX06V7266	TX99U8617/TX97U2001	TAMU
25	TX08A001128	TAM 112/TX01U2685	TAMU
26	TX08A001249	TAM 112/TX98D1158	TAMU
27	TX07V7327	TAM 111/Yumar	TAMU
28	TX08V7173	Abilene/TX99U8611	TAMU
29	TX08V7313	TX97V5300/TAM 111	TAMU
30	NE06430	WESLEY (N95L158)=(KS831936-3//COLT/CODY)/3/KS9U241//IKE/TXGH1	UNL
31	NE09517	W96x1080-21=(Jagger/Thunderbolt)/JAGALENE	UNL
32	NE09521	OK96717-99-6756=(Abilene/2180//Chisholm)/NI01824=(INTENSIVNAJA/NE	UNL
33	NE08499	CDL 91185-1/NE99469 (=NE97V106/NE88588//KARL 92)	UNL
34	NW09627	KS96HW115/NW99L068=(KS84HW1968/3/RIOBLANCO/HBY762A//HALT)	UNL
35	T175	TX97V2838 / B116	Limagrain Cereal Seeds
36	T185	TX97V2838 / B116	Limagrain Cereal Seeds
37	T179	T81 / CO99314	Limagrain Cereal Seeds
38	LCH08-80	S6742 / 92PAN1#33 // 92PIN#107	Limagrain Cereal Seeds
39	LCH08-12	PAVON76 / P2643 // 92PAN2#26	Limagrain Cereal Seeds
40	KS020319-7-3	KS940786-6-4/K92//Cutter	KSU-Man
41	KS020638-M-5	KS940786-17-2/JAGALENE//TREGO	KSU-Man
42	KS020665-M-3	KS940748-2-2/JAGALENE//OVERLEY	KSU-Man
43	KS030975-CF-3	Yumar//TXGH12588-26*4/FS2/3/KS00F5-14-7-1/4/TREGO	KSU-Man
44	T167	T81 / T137	Limagrain Cereal Seeds



Hard Winter Wheat Quality Report 2012 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	47.2	Very Poor	74.0	58.2	Very Good	92.0		8,10,16,
Scout 66	62.6	Very Good	98.2	52.1	Good	82.3		16,
TAM 107	52.5	Very Poor	82.4	37.6	Poor	59.4	1AL	16,
Fuller	56.3	Poor	88.3	38.7	Poor	61.1		
KS07HW5-1-1-3	63.8	Very Good	100.0	56.1	Very Good	88.7		16,
KS07HW5-1-1-4	59.3	Average	93.0	42.0	Average	66.4		21,
KS07HW5-1-1-5	62.0	Very Good	97.3	46.5	Good	73.6		16,21,
Gallagher	62.1	Very Good	97.4	42.0	Average	66.4	h1BL	16,
OK08328	53.7	Very Poor	84.2	29.2	Very Poor	46.1	h1BL	11,12,13,16,17,18,19,21,
OK08229	57.4	Poor	90.1	24.9	Very Poor	39.3		3,5,16,18,19,20,21,
OK09634	62.4	Very Good	97.8	43.1	Average	68.1		16,18,21,
OK08707W	59.1	Average	92.7	36.3	Poor	57.4		
OCW00S063S-1B	59.7	Good	93.6	39.5	Poor	62.5	h1AL	16,21,
BL11001	53.8	Very Poor	84.4	28.2	Very Poor	44.7		1,16,
BL11002	59.6	Good	93.4	43.5	Good	68.8		16,
CO05W111	60.9	Good	95.5	42.3	Average	66.8		16,
Antero	59.4	Average	93.1	34.1	Very Poor	54.0		5,11,13,
CO07W722-F5	60.2	Good	94.4	40.0	Average	63.2		19,
HV9W07-1784	57.7	Average	90.5	62.7	Very Good	99.2		
HV9W07-1942	55.4	Poor	86.9	31.2	Very Poor	49.3	1BL	9,10,12,13,16,17,18,19,20,21
HV9W07-1028	59.9	Good	93.9	51.6	Good	81.7		14,15,
TX07A001505	58.5	Average	91.8	34.3	Poor	54.3		14,15,18,
TX03A0563-07AZHR247	61.2	Good	95.9	43.4	Average	68.6		16,21,
TX06V7266	56.7	Poor	88.9	29.7	Very Poor	47.0		15,16,21,
TX08A001128	61.4	Good	96.3	37.3	Poor	59.0		16,
TX08A001249	58.5	Average	91.8	36.8	Poor	58.2	1AL	15,
TX07V7327	56.4	Poor	88.5	33.4	Very Poor	52.9		11,18,
TX08V7173	63.7	Very Good	99.9	60.6	Very Good	95.8		
TX08V7313	56.7	Poor	88.9	47.6	Good	75.3		10,11,16,
NE06430	55.0	Poor	86.3	49.4	Good	78.1		

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 2012 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
NE09517	63.5	Very Good	99.5	42.4	Average	67.1		15,
NE09521	58.1	Average	91.2	42.2	Average	66.8		
NE08499	54.2	Very Poor	85.0	56.2	Very Good	88.8		
NW09627	55.2	Poor	86.6	48.9	Good	77.4		9,
T175	55.8	Poor	87.6	58.4	Very Good	92.4		2,4,
T185	52.5	Very Poor	82.4	40.0	Average	63.2		2,4,
T179	58.1	Average	91.1	49.9	Good	78.9		2,4,9,12,17,
LCH08-80	58.2	Average	91.3	31.4	Very Poor	49.6		1,16,21,
LCH08-12	36.4	Very Poor	57.1	36.7	Poor	58.0		1,4,6,8,10,
1863	60.9	Good	95.4	56.7	Very Good	89.7		
KS020638-M-5	61.9	Very Good	97.1	31.6	Very Poor	49.9		16,
KS020665-M-3	59.6	Good	93.5	63.2	Very Good	100.0		
KS030975-CF-3	52.1	Very Poor	81.7	37.2	Poor	58.9		1,
T167	51.2	Very Poor	80.3	44.0	Good	69.5	1AL	3,5,11,13,15,16,

2012 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	61.2	11.8	0.5	24.9	7.5	2.47	0.28	53 20	MIXED	15--23--29--33--03	
Scout 66	60.9	12.5	0.5	29.1	8.5	2.60	0.33	65 15	HARD	02--09--27--62--01	
TAM 107	59.0	12.1	0.6	28.0	9.1	2.56	0.37	68 16	HARD	02--08--21--69--01	
Fuller	60.7	12.1	0.5	28.6	7.6	2.68	0.30	63 16	HARD	03--10--27--60--01	
KS07HW5-1-1-3	62.4	11.9	0.5	27.6	7.7	2.56	0.31	73 15	HARD	00--05--11--84--01	
KS07HW5-1-1-4	62.0	12.1	0.5	29.2	8.2	2.61	0.32	69 18	HARD	03--07--16--74--01	
KS07HW5-1-1-5	62.5	12.0	0.5	29.7	8.1	2.62	0.28	70 17	HARD	01--07--17--75--01	
OK07214	61.7	12.2	0.5	30.1	8.7	2.68	0.32	74 16	HARD	00--04--08--88--01	
OK08328	60.8	12.0	0.5	26.8	8.3	2.54	0.35	62 20	HARD	08--09--20--63--02	
OK08229	60.1	12.0	0.8	32.4	10.9	2.72	0.41	65 17	HARD	03--11--24--62--01	
OK09634	61.2	11.5	0.8	29.3	8.5	2.65	0.33	68 17	HARD	03--09--17--71--01	
OK08707W	61.0	11.8	0.9	28.7	9.8	2.62	0.38	70 17	HARD	01--05--17--77--01	
OCW00S063S-1B	61.2	12.0	0.8	29.5	9.8	2.61	0.38	63 16	HARD	05--08--25--62--01	
BL11001	57.5	11.6	0.7	27.7	9.6	2.54	0.35	59 17	HARD	06--18--30--46--02	
BL11002	60.7	11.8	0.6	29.8	9.4	2.66	0.35	68 15	HARD	01--05--18--76--01	
CO05W111	60.5	11.8	0.7	25.8	7.2	2.51	0.30	66 16	HARD	02--08--23--67--01	
CO07W245	61.4	11.9	0.8	31.1	9.3	2.68	0.39	57 18	HARD	09--21--25--45--02	
CO07W722-F5	59.3	11.7	0.9	25.8	7.7	2.51	0.30	81 17	HARD	01--02--06--91--01	
HV9W07-1784	60.5	11.3	0.7	29.2	9.4	2.63	0.34	60 17	HARD	07--16--24--53--02	
HV9W07-1942	62.2	11.4	0.8	27.4	8.8	2.59	0.35	72 17	HARD	00--07--16--77--01	
HV9W07-1028	61.4	11.3	0.9	25.8	7.1	2.52	0.30	70 14	HARD	01--04--17--78--01	
TX07A001505	61.7	11.4	0.9	26.5	8.2	2.53	0.32	67 17	HARD	03--08--19--70--01	
TX03A0563-07AZHR247	61.4	11.1	0.7	25.5	7.1	2.55	0.29	68 15	HARD	00--07--19--74--01	
TX06V7266	60.3	11.4	0.8	24.9	7.1	2.49	0.30	68 16	HARD	02--07--19--72--01	
TX08A001128	63.3	11.4	0.7	28.9	9.4	2.62	0.37	66 16	HARD	02--07--25--66--01	
TX08A001249	61.7	10.8	0.8	26.4	7.6	2.55	0.34	73 16	HARD	01--04--16--79--01	
TX07V7327	61.0	11.3	0.9	26.9	8.1	2.52	0.33	68 14	HARD	01--06--18--75--01	
TX08V7173	61.5	11.5	0.7	26.9	7.2	2.56	0.27	72 14	HARD	00--03--18--79--01	
TX08V7313	62.1	11.9	0.8	29.3	8.6	2.68	0.35	73 16	HARD	00--06--15--79--01	
NE06430	60.2	11.7	0.7	27.6	9.1	2.55	0.34	62 16	HARD	02--14--26--58--01	
NE09517	61.8	12.1	0.8	29.5	8.6	2.65	0.34	69 15	HARD	01--03--21--75--01	
NE09521	60.5	12.0	0.8	28.4	8.3	2.57	0.33	68 16	HARD	02--07--18--73--01	
NE08499	59.9	12.0	0.7	27.0	7.9	2.53	0.32	67 16	HARD	02--07--22--69--01	
NW09627	59.4	12.0	0.7	28.8	8.9	2.64	0.35	60 15	HARD	04--11--34--51--01	
T175	58.9	11.7	0.6	21.7	6.1	2.35	0.27	69 17	HARD	02--07--19--72--01	
T185	59.2	11.6	0.7	20.4	6.8	2.32	0.29	69 17	HARD	02--07--16--75--01	
T179	60.0	11.6	0.8	22.9	6.6	2.39	0.27	70 16	HARD	01--06--18--75--01	
LCH08-80	58.6	11.6	0.8	25.1	7.7	2.51	0.31	74 15	HARD	01--03--13--83--01	
LCH08-12	58.4	11.3	0.8	24.9	7.6	2.35	0.28	33 22	MIXED	57--20--09--14--03	
KS020319-7-3	62.0	11.4	0.7	27.4	7.8	2.55	0.30	68 16	HARD	02--06--19--73--01	
KS020638-M-5	61.6	11.4	0.7	27.7	8.1	2.61	0.34	70 15	HARD	01--05--18--76--01	
KS020665-M-3	60.6	11.4	0.7	27.9	8.0	2.58	0.34	64 15	HARD	02--09--25--64--01	
KS030975-CF-3	58.8	11.4	0.8	26.3	7.9	2.55	0.32	67 18	HARD	03--09--22--66--01	
T167	59.3	11.4	0.8	32.7	11.5	2.64	0.42	70 15	HARD	00--07--14--79--01	

2012 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	15.1	65.8	0.38	13.0	0.483	82.18	-1.73	21.59	-12.14	0.84	3.59
Scout 66	14.1	72.2	0.38	12.6	0.529	82.48	-1.46	20.06	-13.35	0.80	5.39
TAM 107	13.2	68.2	0.38	11.6	0.583	81.64	-1.74	22.40	-11.99	0.62	5.31
Fuller	13.9	68.0	0.38	12.1	0.643	82.24	-1.49	21.01	-12.79	0.67	4.80
KS07HW5-1-1-3	14.1	71.0	0.39	12.7	0.534	82.98	-1.65	20.12	-12.87	0.38	6.11
KS07HW5-1-1-4	14.1	69.9	0.39	12.6	0.534	82.67	-2.26	21.86	-11.75	0.92	3.85
KS07HW5-1-1-5	13.7	69.9	0.36	12.4	0.521	82.17	-2.05	22.28	-9.89	0.76	2.95
OK07214	13.4	70.3	0.40	12.2	0.203	82.36	-1.98	22.70	-9.62	0.35	5.83
OK08328	12.4	70.2	0.40	11.1	0.514	80.14	-1.84	24.63	-12.01	1.22	1.96
OK08229	13.7	71.7	0.40	12.0	0.603	80.65	-1.48	21.90	-12.89	1.17	3.99
OK09634	13.6	72.1	0.38	12.2	0.189	81.35	-1.84	22.51	-10.17	0.72	3.21
OK08707W	13.0	71.3	0.37	11.3	0.618	82.62	-2.02	21.80	-12.09	1.19	4.03
OCW00S063S-1B	12.8	72.8	0.42	11.4	0.588	81.61	-2.27	24.25	-11.66	0.73	3.04
BL11001	12.9	71.8	0.40	11.6	0.600	82.13	-1.63	20.95	-11.51	0.73	3.80
BL11002	13.9	70.8	0.40	12.2	0.221	82.55	-1.78	21.32	-12.10	0.49	6.61
CO05W111	12.9	71.5	0.39	11.5	0.584	81.23	-2.24	24.60	-9.59	0.89	3.25
CO07W245	12.9	71.8	0.36	10.9	0.582	81.97	-2.21	22.47	-10.24	0.84	4.10
CO07W722-F5	13.0	70.4	0.36	11.2	0.235	82.09	-1.93	23.04	-6.20	0.87	4.06
HV9W07-1784	14.5	71.7	0.40	12.9	0.448	82.26	-1.77	22.97	-9.83	1.09	1.83
HV9W07-1942	13.3	68.5	0.42	11.6	0.450	80.95	-2.08	26.03	-8.94	0.90	2.87
HV9W07-1028	13.7	68.9	0.37	12.1	0.492	83.00	-2.39	22.98	-10.40	0.62	4.26
TX07A001505	13.6	69.7	0.35	12.0	0.529	81.89	-1.99	24.13	-9.69	0.38	3.49
TX03A0563-07AZHR247	13.8	69.8	0.36	12.1	0.491	84.05	-1.51	18.63	-9.64	0.37	5.91
TX06V7266	14.3	68.9	0.37	12.1	0.609	81.15	-1.70	22.36	-8.76	0.63	1.87
TX08A001128	13.9	71.5	0.40	12.2	0.575	81.37	-1.86	22.52	-11.09	0.79	1.90
TX08A001249	13.5	68.9	0.38	11.7	0.571	81.93	-1.69	20.85	-11.46	1.30	3.05
TX07V7327	12.8	67.6	0.34	10.8	0.550	82.60	-1.97	22.34	-10.23	0.57	3.43
TX08V7173	13.8	69.8	0.34	11.7	0.515	81.71	-1.92	22.25	-10.39	1.07	2.70
TX08V7313	13.1	68.0	0.42	11.0	0.605	81.63	-2.40	23.95	-10.27	0.69	2.73
NE06430	13.6	68.9	0.35	11.7	0.670	81.90	-1.99	22.57	-10.30	1.15	2.63
NE09517	13.2	71.8	0.41	11.6	0.529	81.74	-2.33	23.61	-10.20	1.01	1.84
NE09521	13.3	69.5	0.38	12.1	0.284	82.39	-1.82	21.75	-9.44	0.74	3.48
NE08499	13.7	68.1	0.41	12.3	0.639	82.11	-1.64	21.47	-12.22	1.04	3.91
NW09627	12.6	70.1	0.43	11.4	0.307	83.05	-2.68	23.59	-9.43	1.56	2.44
T175	13.5	69.6	0.38	11.8	0.531	82.80	-3.12	27.88	-9.45	1.17	1.48
T185	13.7	68.4	0.37	12.2	0.590	82.35	-2.90	27.77	-11.76	1.50	1.75
T179	13.6	71.0	0.45	12.1	0.645	81.05	-2.50	25.37	-13.15	2.06	1.74
LCH08-80	13.8	70.7	0.42	12.2	0.484	82.01	-2.10	23.22	-11.42	1.16	2.91
LCH08-12	14.1	63.3	0.35	12.0	0.559	82.50	-2.30	22.45	-9.07	1.06	1.42
KS020319-7-3	13.2	70.5	0.41	11.5	0.517	82.67	-2.62	24.33	-10.24	1.46	2.48
KS020638-M-5	13.7	70.6	0.36	11.8	0.613	81.41	-2.03	21.95	-11.74	1.08	3.48

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
	(%)	(%)	(%)	(%)							
KS020665-M-3	13.8	70.7	0.39	12.2	0.444	81.28	-1.99	23.37	-9.75	0.83	2.30
KS030975-CF-3	13.8	67.8	0.36	12.1	0.734	81.51	-2.30	23.91	-12.23	1.47	2.48
T167	12.9	67.5	0.39	11.1	0.476	81.76	-1.80	22.84	-10.82	0.71	3.67

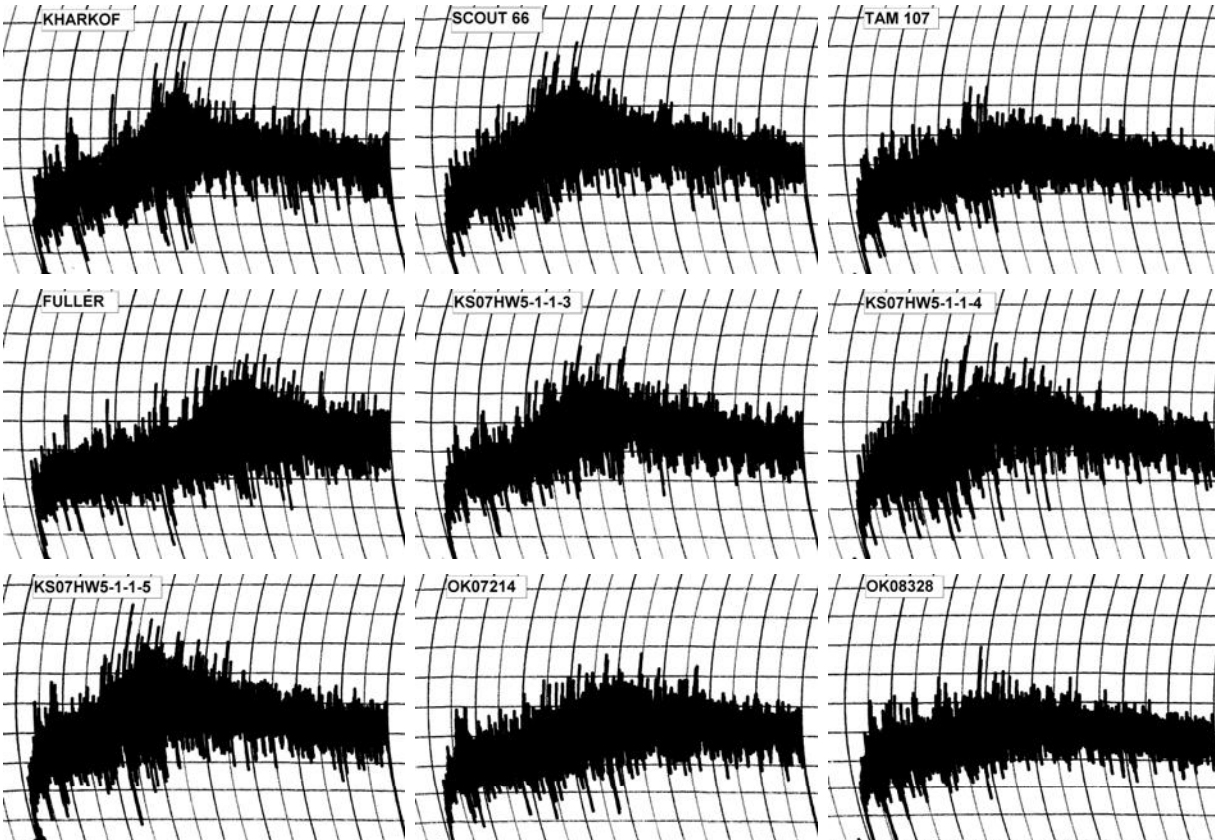
2012 SRPN Intraregional Production Zone

North Central Plains

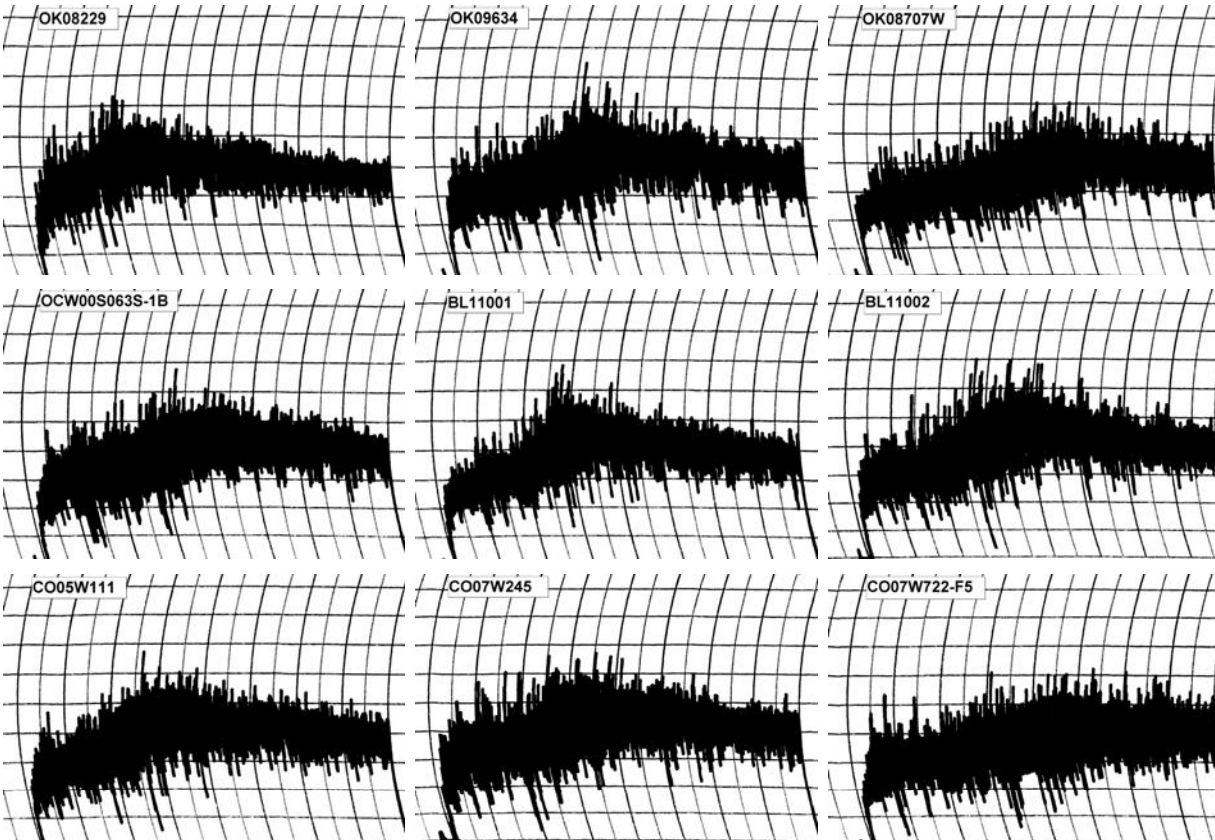
	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	13.0	63.1	3.38	3.38	2
Scout 66	12.6	64.0	3.00	3.00	1
TAM 107	11.6	61.2	3.25	3.09	2
Fuller	12.1	63.2	4.63	4.63	5
KS07HW5-1-1-3	12.7	64.5	3.25	3.25	2
KS07HW5-1-1-4	12.6	63.9	3.13	3.13	3
KS07HW5-1-1-5	12.4	63.7	3.00	3.00	2
OK07214	12.2	63.2	4.00	4.00	2
OK08328	11.1	59.5	3.50	3.12	2
OK08229	12.0	61.9	2.50	2.49	1
OK09634	12.2	62.3	3.50	3.50	2
OK08707W	11.3	63.3	4.75	4.36	3
OCW00S063S-1B	11.4	61.0	3.63	3.38	2
BL11001	11.6	62.2	3.13	2.97	2
BL11002	12.2	62.2	3.63	3.63	2
CO05W111	11.5	62.0	3.25	3.04	2
CO07W245	10.9	60.2	3.38	2.94	4
CO07W722-F5	11.2	61.6	4.88	4.42	4
HV9W07-1784	12.9	63.5	4.00	4.00	4
HV9W07-1942	11.6	59.7	4.00	3.80	2
HV9W07-1028	12.1	63.1	6.00	6.00	5
TX07A001505	12.0	62.0	8.50	8.50	5
TX03A0563-07AZHR247	12.1	63.0	3.50	3.50	2
TX06V7266	12.1	62.2	2.13	2.13	1
TX08A001128	12.2	63.4	2.88	2.88	1
TX08A001249	11.7	62.4	5.38	5.18	4
TX07V7327	10.8	61.5	4.38	3.76	4
TX08V7173	11.7	62.5	4.38	4.23	4
TX08V7313	11.0	62.2	4.00	3.51	2
NE06430	11.7	61.4	4.75	4.56	5
NE09517	11.6	61.3	6.00	5.73	3
NE09521	12.1	63.2	4.88	4.88	5
NE08499	12.3	63.4	5.00	5.00	4
NW09627	11.4	61.9	3.63	3.36	4
T175	11.8	62.7	4.50	4.42	5
T185	12.2	63.3	4.63	4.63	5
T179	12.1	61.5	3.00	3.00	3
LCH08-80	12.2	62.8	2.25	2.25	2
LCH08-12	12.0	62.5	4.38	4.38	4
KS020319-7-3	11.5	61.1	3.75	3.53	4
KS020638-M-5	11.8	62.0	2.88	2.80	2

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
KS020665-M-3	12.2	61.8	4.50	4.50	5
KS030975-CF-3	12.1	62.5	5.13	5.13	5
T167	11.1	60.5	5.38	4.79	2

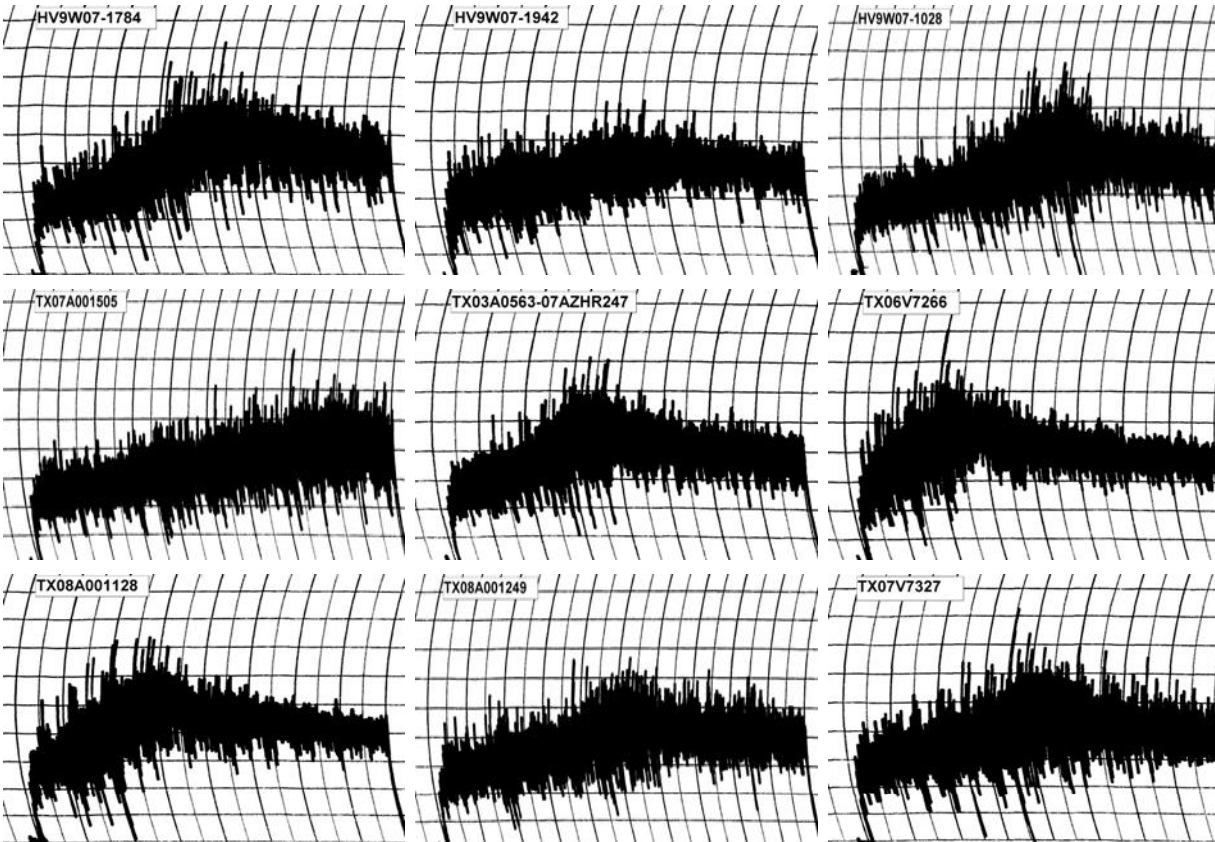
2012 SRPN Intraregional Production Zone North Central Plains



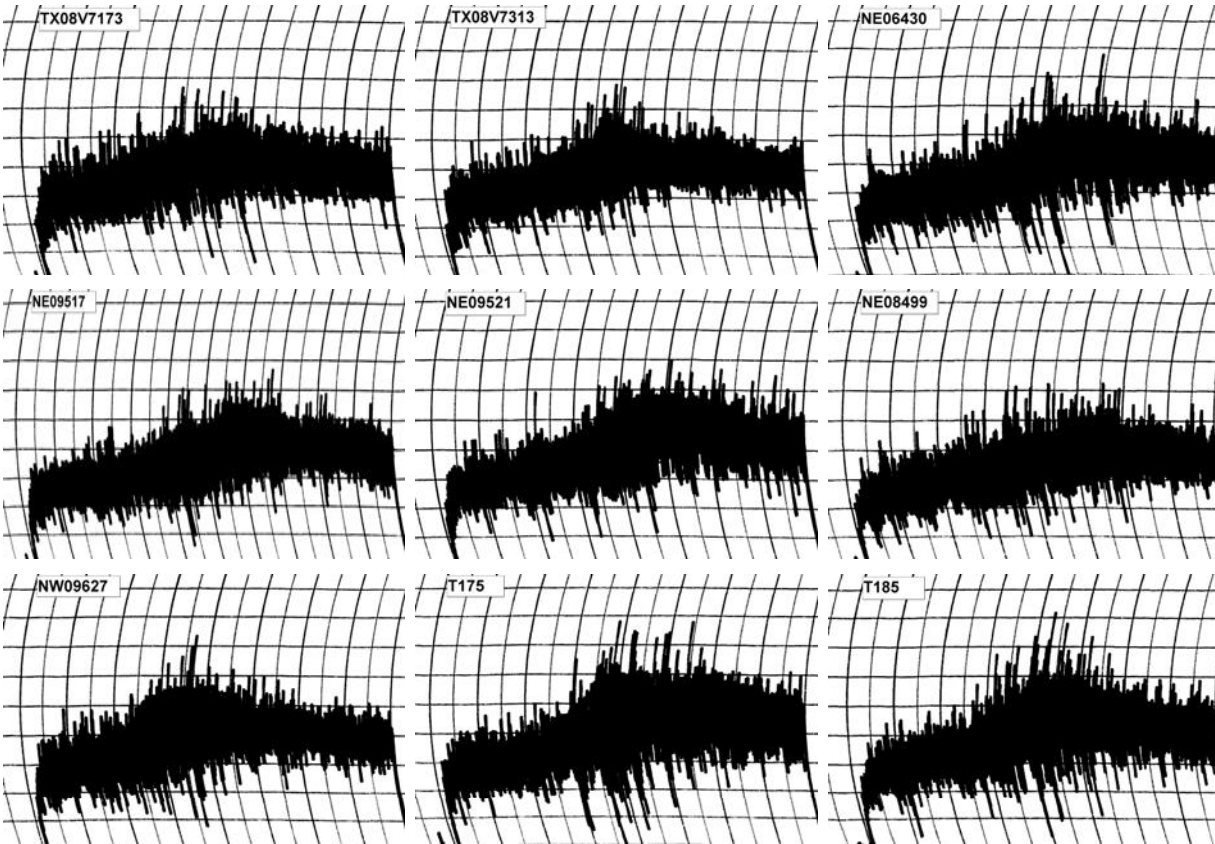
2012 SRPN Intraregional Production Zone North Central Plains



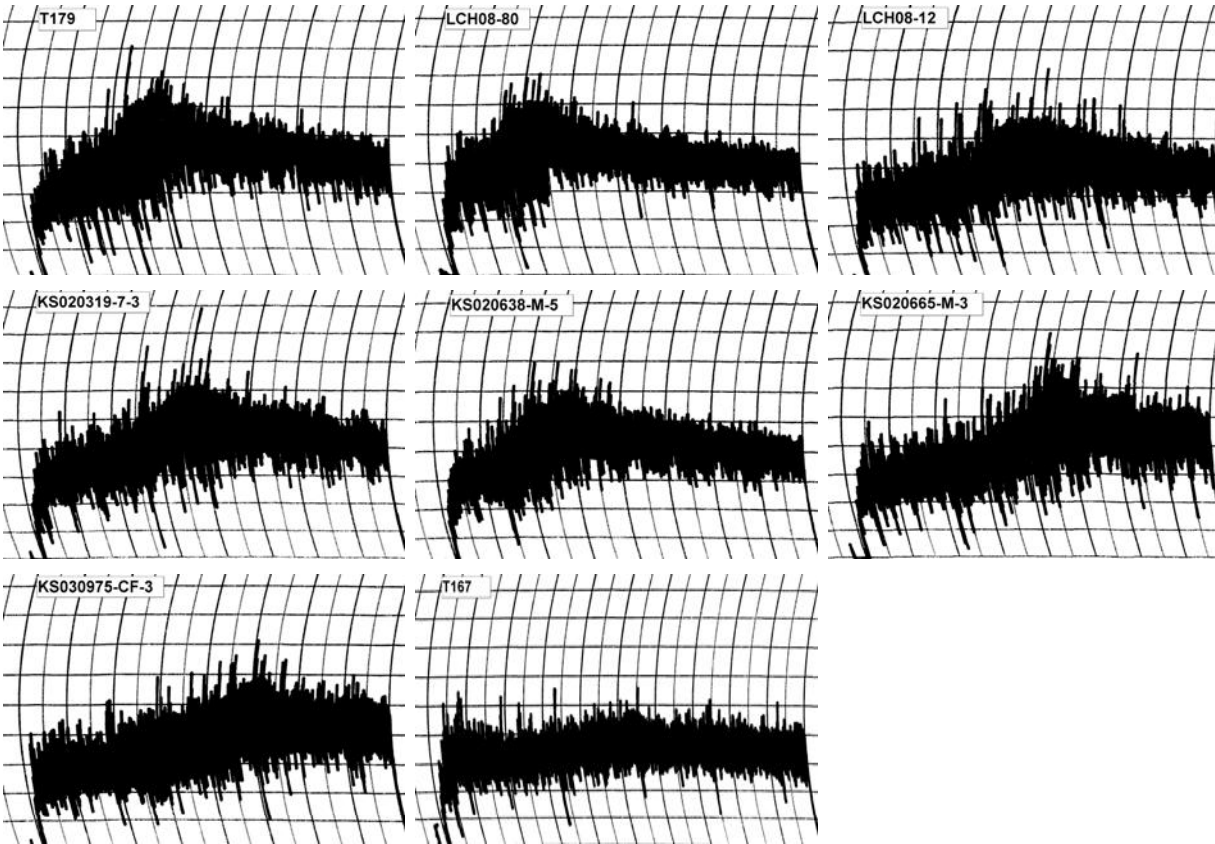
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2012 SRPN Intraregional Production Zone

North Central Plains

Line	RVA							Pasting Temp (Deg. C)
	Stirring Number (RVU)	Peak Viscosity (RVU)	Trough Viscosity (RVU)	Breakdown (RVU)	Final Viscosity (RVU)	Set back (RVU)	Peak Time (min)	
Kharkof	153.08	234.50	171.25	63.25	283.50	112.25	6.40	
Scout 66	130.33	221.08	150.50	70.58	261.42	110.92	6.27	
TAM 107	133.83	269.08	186.92	82.17	304.25	117.33	6.47	
Fuller	137.42	237.50	172.17	65.33	296.00	123.83	6.33	
KS07HW5-1-1-3	121.83	279.42	168.08	111.33	260.83	92.75	6.40	
KS07HW5-1-1-4	123.00	282.58	169.92	112.67	271.08	101.17	6.40	
KS07HW5-1-1-5	126.58	285.00	175.75	109.25	270.17	94.42	6.47	
OK07214	131.67	197.00	141.58	55.42	246.83	105.25	6.33	
OK08328	102.33	264.00	151.58	112.42	254.58	103.00	6.27	
OK08229	132.33	216.00	147.83	68.17	259.08	111.25	6.33	
OK09634	140.58	233.83	155.08	78.75	262.17	107.08	6.33	
OK08707W	114.75	244.58	149.58	95.00	248.83	99.25	6.27	
OCW00S063S-1B	129.33	198.42	143.08	55.33	265.08	122.00	6.13	
BL11001	120.00	191.17	134.58	56.58	253.25	118.67	6.07	
BL11002	116.92	233.75	149.17	84.58	253.67	104.50	6.27	
CO05W111	121.17	221.25	148.00	73.25	262.58	114.58	6.20	
CO07W245	120.42	268.75	167.58	101.17	271.00	103.42	6.40	
CO07W722-F5	131.08	213.67	149.42	64.25	268.92	119.50	6.13	
HV9W07-1784	143.42	236.25	164.67	71.58	274.75	110.08	6.40	
HV9W07-1942	131.92	210.75	150.50	60.25	260.33	109.83	6.27	
HV9W07-1028	138.08	250.75	166.67	84.08	276.83	110.17	6.33	
TX07A001505	136.08	246.67	170.75	75.92	288.33	117.58	6.27	
TX03A0563-07AZHR247	136.42	217.83	160.42	57.42	286.58	126.17	6.20	
TX06V7266	126.33	247.25	173.00	74.25	291.92	118.92	6.33	
TX08A001128	125.83	295.08	177.42	117.67	282.50	105.08	6.40	
TX08A001249	140.33	272.08	182.42	89.67	297.67	115.25	6.40	
TX07V7327	132.58	238.17	164.67	73.50	290.50	125.83	6.20	
TX08V7173	129.00	272.00	176.08	95.92	290.00	113.92	6.33	
TX08V7313	129.50	239.00	164.83	74.17	276.58	111.75	6.33	
NE06430	132.83	245.25	162.33	82.92	279.17	116.83	6.27	
NE09517	124.08	217.33	147.42	69.92	263.08	115.67	6.13	
NE09521	132.08	237.25	165.42	71.83	274.83	109.42	6.33	
NE08499	134.92	214.00	151.42	62.58	263.08	111.67	6.20	
NW09627	103.33	221.08	143.08	78.00	257.00	113.92	6.07	
T175	137.17	236.33	165.50	70.83	282.83	117.33	6.33	
T185	138.00	232.08	163.00	69.08	281.42	118.42	6.27	
T179	123.83	243.75	162.42	81.33	277.00	114.58	6.33	
LCH08-80	118.33	245.25	157.67	87.58	272.67	115.00	6.27	
LCH08-12	129.17	220.08	160.50	59.58	286.67	126.17	6.27	
KS020319-7-3	125.42	274.75	177.50	97.25	276.50	99.00	6.47	
KS020638-M-5	129.25	270.67	170.67	100.00	272.83	102.17	6.47	
KS020665-M-3	140.92	255.83	176.58	79.25	289.58	113.00	6.40	
KS030975-CF-3	131.67	225.58	161.33	64.25	286.17	124.83	6.27	
T167	139.83	262.00	179.50	82.50	296.83	117.33	6.40	

2012 SRPN Intraregional Production Zone

North Central Plains

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	13.0	61.2	4.50	4.50	174.4	7.3	4.0	950	6.5	65
Scout 66	12.6	62.9	4.13	4.13	170.7	7.4	3.0	955	6.4	68
TAM 107	11.6	61.2	3.75	3.56	172.8	7.1	3.5	935	6.5	74
Fuller	12.1	62.9	5.88	5.88	171.9	6.8	2.5	860	5.7	61
KS07HW5-1-1-3	12.7	63.9	4.38	4.38	172.6	7.0	3.0	980	6.6	70
KS07HW5-1-1-4	12.6	63.0	4.00	4.00	173.1	7.0	1.5	935	6.3	66
KS07HW5-1-1-5	12.4	63.2	4.13	4.13	171.8	7.0	2.0	945	6.4	68
OK07214	12.2	62.9	4.75	4.75	171.6	7.1	2.5	895	6.1	65
OK08328	11.1	57.6	4.25	3.79	167.0	6.4	1.0	775	5.3	58
OK08229	12.0	60.2	2.75	2.74	170.2	6.5	1.0	780	5.3	53
OK09634	12.2	62.3	5.00	5.00	171.8	6.5	2.0	855	5.8	60
OK08707W	11.3	62.3	5.25	4.81	171.5	6.6	3.5	845	5.6	65
OCW00S063S-1B	11.4	61.1	4.50	4.19	169.9	6.7	2.0	830	5.6	63
BL11001	11.6	60.3	3.25	3.08	169.6	6.9	2.5	815	5.5	60
BL11002	12.2	61.9	4.75	4.75	170.7	7.0	2.5	945	6.4	70
CO05W111	11.5	61.8	4.13	3.86	171.4	6.7	3.0	820	5.5	61
CO07W245	10.9	61.0	4.50	3.91	170.6	6.8	4.5	820	5.5	65
CO07W722-F5	11.2	61.8	6.00	5.43	170.8	6.7	3.0	790	5.3	59
HV9W07-1784	12.9	63.8	6.13	6.13	173.1	7.0	5.0	930	6.1	64
HV9W07-1942	11.6	59.8	4.25	4.04	168.9	6.5	1.0	785	5.3	56
HV9W07-1028	12.1	63.2	7.25	7.25	171.5	7.1	4.0	960	6.4	72
TX07A001505	12.0	60.8	8.00	8.00	169.3	6.4	3.0	840	5.7	60
TX03A0563-07AZHR247	12.1	61.6	4.13	4.13	171.1	7.0	2.0	905	6.2	67
TX06V7266	12.1	60.7	2.75	2.75	170.0	6.9	2.0	830	5.6	58
TX08A001128	12.2	60.7	3.75	3.75	169.9	7.2	4.5	955	6.5	71
TX08A001249	11.7	62.1	5.88	5.66	171.5	6.9	3.5	915	6.2	71
TX07V7327	10.8	62.0	4.25	3.65	171.7	6.5	3.5	810	5.4	65
TX08V7173	11.7	62.2	5.00	4.83	172.3	7.1	4.0	975	6.6	77
TX08V7313	11.0	60.9	4.38	3.84	170.8	6.9	3.0	900	6.1	75
NE06430	11.7	61.9	6.75	6.48	171.2	6.8	4.0	885	6.0	67
NE09517	11.6	60.8	6.75	6.45	170.1	6.8	3.0	950	6.5	75
NE09521	12.1	62.3	5.50	5.50	172.3	7.0	3.5	935	6.3	70
NE08499	12.3	61.7	5.50	5.50	171.4	7.0	4.0	945	6.3	70
NW09627	11.4	61.7	4.50	4.17	171.1	6.8	3.0	865	5.8	67
T175	11.8	62.8	6.25	6.13	172.1	7.1	4.0	970	6.6	76
T185	12.2	63.2	6.75	6.75	173.5	7.0	3.5	930	6.3	68
T179	12.1	58.9	3.75	3.75	168.2	7.0	4.0	910	6.2	67
LCH08-80	12.2	60.3	3.00	3.00	170.0	6.7	1.0	875	5.9	62
LCH08-12	12.0	61.5	4.25	4.25	170.4	6.9	3.5	850	5.8	61
KS020319-7-3	11.5	61.3	4.63	4.36	170.8	6.9	4.0	905	6.1	71
KS020638-M-5	11.8	60.5	3.50	3.40	169.9	7.0	3.5	870	5.9	65
KS020665-M-3	12.2	61.8	7.00	7.00	171.6	7.5	5.0	1025	6.7	79
KS030975-CF-3	12.1	62.4	5.75	5.75	172.3	6.8	3.5	870	5.7	63

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
T167	11.1	62.4	5.75	5.12	170.9	7.3	3.0	885	6.0	72

List of SRPN Sample ID

Entry	Breeder ID	HWWQL ID			
		North Central Plains	Northern High Plains	South Central Plains	Southern High Plains
1	Kharkof	12-SNC1001	12-SNH1001	12-SSC1001	12-SSH1001
2	Scout 66	12-SNC1002	12-SNH1002	12-SSC1002	12-SSH1002
3	TAM 107	12-SNC1003	12-SNH1003	12-SSC1003	12-SSH1003
4	Fuller	12-SNC1004	12-SNH1004	12-SSC1004	12-SSH1004
5	KS07HW5-1-1-3	12-SNC1005	12-SNH1005	12-SSC1005	12-SSH1005
6	KS07HW5-1-1-4	12-SNC1006	12-SNH1006	12-SSC1006	12-SSH1006
7	KS07HW5-1-1-5	12-SNC1007	12-SNH1007	12-SSC1007	12-SSH1007
8	OK07214	12-SNC1008	12-SNH1008	12-SSC1008	12-SSH1008
9	OK08328	12-SNC1009	12-SNH1009	12-SSC1009	12-SSH1009
10	OK08229	12-SNC1010	12-SNH1010	12-SSC1010	12-SSH1010
11	OK09634	12-SNC1011	12-SNH1011	12-SSC1011	12-SSH1011
12	OK08707W	12-SNC1012	12-SNH1012	12-SSC1012	12-SSH1012
13	OCW00S063S-1B	12-SNC1013	12-SNH1013	12-SSC1013	12-SSH1013
14	BL11001	12-SNC1014	12-SNH1014	12-SSC1014	12-SSH1014
15	BL11002	12-SNC1015	12-SNH1015	12-SSC1015	12-SSH1015
16	CO05W111	12-SNC1016	12-SNH1016	12-SSC1016	12-SSH1016
17	CO07W245	12-SNC1017	12-SNH1017	12-SSC1017	12-SSH1017
18	CO07W722-F5	12-SNC1018	12-SNH1018	12-SSC1018	12-SSH1018
19	HV9W07-1784	12-SNC1019	12-SNH1019	12-SSC1019	12-SSH1019
20	HV9W07-1942	12-SNC1020	12-SNH1020	12-SSC1020	12-SSH1020
21	HV9W07-1028	12-SNC1021	12-SNH1021	12-SSC1021	12-SSH1021
22	TX07A001505	12-SNC1022	12-SNH1022	12-SSC1022	12-SSH1022
23	TX03A0563-07AZHR247	12-SNC1023	12-SNH1023	12-SSC1023	12-SSH1023
24	TX06V7266	12-SNC1024	12-SNH1024	12-SSC1024	12-SSH1024
25	TX08A001128	12-SNC1025	12-SNH1025	12-SSC1025	12-SSH1025
26	TX08A001249	12-SNC1026	12-SNH1026	12-SSC1026	12-SSH1026
27	TX07V7327	12-SNC1027	12-SNH1027	12-SSC1027	12-SSH1027
28	TX08V7173	12-SNC1028	12-SNH1028	12-SSC1028	12-SSH1028
29	TX08V7313	12-SNC1029	12-SNH1029	12-SSC1029	12-SSH1029
30	NE06430	12-SNC1030	12-SNH1030	12-SSC1030	12-SSH1030
31	NE09517	12-SNC1031	12-SNH1031	12-SSC1031	12-SSH1031
32	NE09521	12-SNC1032	12-SNH1032	12-SSC1032	12-SSH1032
33	NE08499	12-SNC1033	12-SNH1033	12-SSC1033	12-SSH1033
34	NW09627	12-SNC1034	12-SNH1034	12-SSC1034	12-SSH1034
35	T175	12-SNC1035	12-SNH1035	12-SSC1035	12-SSH1035
36	T185	12-SNC1036	12-SNH1036	12-SSC1036	12-SSH1036
37	T179	12-SNC1037	12-SNH1037	12-SSC1037	12-SSH1037
38	LCH08-80	12-SNC1038	12-SNH1038	12-SSC1038	12-SSH1038
39	LCH08-12	12-SNC1039	12-SNH1039	12-SSC1039	12-SSH1039
40	KS020319-7-3	12-SNC1040	12-SNH1040	12-SSC1040	12-SSH1040
41	KS020638-M-5	12-SNC1041	12-SNH1041	12-SSC1041	12-SSH1041
42	KS020665-M-3	12-SNC1042	12-SNH1042	12-SSC1042	12-SSH1042
43	KS030975-CF-3	12-SNC1043	12-SNH1043	12-SSC1043	12-SSH1043
44	T167	12-SNC1044	12-SNH1044	12-SSC1044	12-SSH1044

2012 SRPN Intraregional Production Zone North Central Plains

12-SNC1001



12-SNC1002



12-SNC1003



12-SNC1004



12-SNC1005



12-SNC1006



12-SNC1007



12-SNC1008



12-SNC1009



2012 SRPN Intraregional Production Zone North Central Plains

12-SNC1010



12-SNC1011



12-SNC1012



12-SNC1013



12-SNC1014



12-SNC1015



12-SNC1016



12-SNC1017

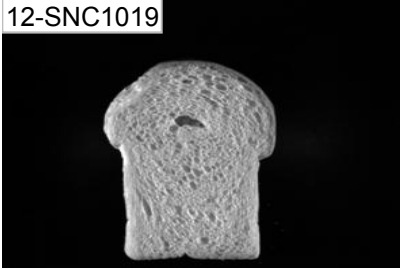


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2012 SRPN Intraregional Production Zone North Central Plains

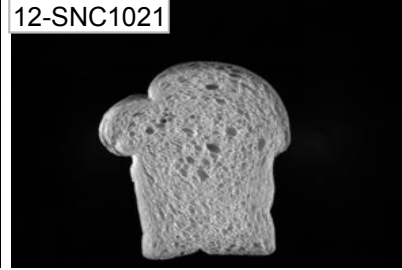
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12-SNC1021



12-SNC1022



12-SNC1023



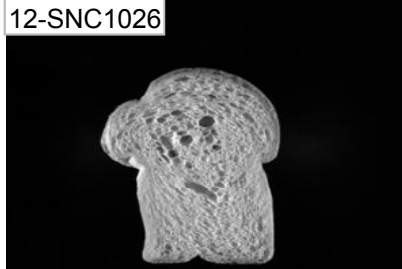
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12-SNC1025



12-SNC1026



12-SNC1027

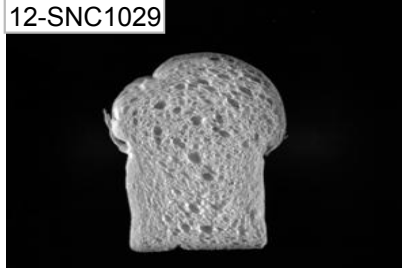


2012 SRPN Intraregional Production Zone North Central Plains

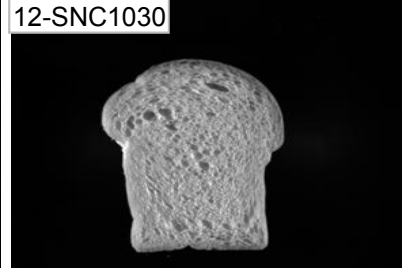
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12-SNC1029



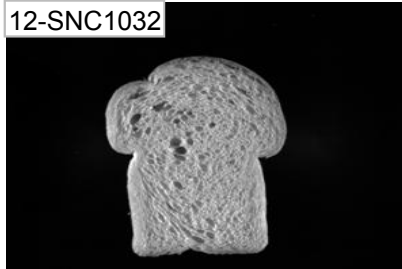
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12-SNC1031



12-SNC1032



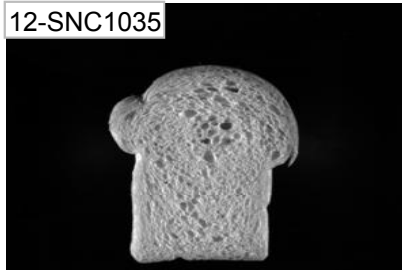
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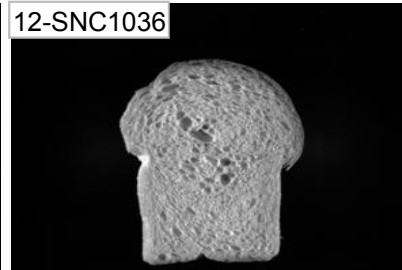
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12-SNC1035



12-SNC1036

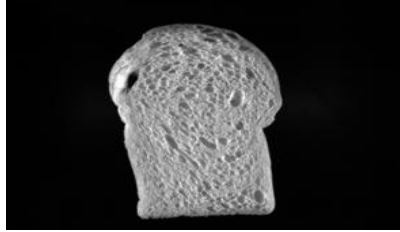


2012 SRPN Intraregional Production Zone North Central Plains

12-SNC1037



12-SNC1038



12-SNC1039



12-SNC1040



12-SNC1041



12-SNC1042



12-SNC1043



12-SNC1044





Hard Winter Wheat Quality Report 2012 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	41.0	Very Poor	65.8	61.8	Very Good	99.4		2,4,8,10,16,
Scout 66	60.3	Very Good	96.8	52.7	Good	84.8		16,
TAM 107	53.0	Very Poor	85.1	25.2	Very Poor	40.6	1AL	3,5,15,16,
Fuller	53.3	Poor	85.5	62.2	Very Good	100.0		
KS07HW5-1-1-3	57.6	Good	92.5	44.2	Poor	71.1		16,
KS07HW5-1-1-4	58.3	Good	93.5	60.1	Very Good	96.8		16,
KS07HW5-1-1-5	60.3	Very Good	96.7	32.3	Poor	52.0		16,
Gallagher	58.6	Very Good	94.1	46.2	Average	74.3	h1BL	16,
OK08328	51.3	Very Poor	82.3	27.9	Very Poor	44.9	h1BL	1,13,16,
OK08229	57.6	Good	92.4	18.4	Very Poor	29.6		3,5,12,14,15,16,17,20,
OK09634	57.0	Good	91.4	46.5	Average	74.8		16,
OK08707W	58.3	Good	93.5	60.8	Very Good	97.7		
OCW00S063S-1B	53.9	Poor	86.4	45.1	Average	72.5	h1AL	9,16,
BL11001	54.9	Poor	88.1	53.2	Good	85.6		12,16,
BL11002	54.5	Poor	87.5	58.6	Very Good	94.3		16,
CO05W111	56.7	Average	91.0	53.4	Good	85.9		16,
Antero	56.3	Average	90.3	44.6	Poor	71.7		3,5,11,12,16,17,
CO07W722-F5	56.7	Average	90.9	53.8	Good	86.6		
HV9W07-1784	60.1	Very Good	96.4	51.0	Average	82.0		16,
HV9W07-1942	58.5	Very Good	93.8	23.5	Very Poor	37.8	1BL	9,12,13,16,17,19,20,21,
HV9W07-1028	56.2	Average	90.1	48.2	Average	77.6		2,4,
TX07A001505	57.6	Good	92.5	28.0	Very Poor	45.1		15,
TX03A0563-07AZHR247	62.3	Very Good	100.0	45.2	Poor	72.7		16,
TX06V7266	56.2	Average	90.2	17.0	Very Poor	27.3		12,14,15,16,17,19,
TX08A001128	55.6	Average	89.2	30.9	Poor	49.7		16,
TX08A001249	56.0	Average	89.9	45.1	Poor	72.6	1AL	
TX07V7327	51.0	Very Poor	81.8	51.6	Average	83.0		
TX08V7173	59.5	Very Good	95.4	37.0	Poor	59.5		
TX08V7313	56.8	Average	91.1	53.1	Good	85.4		9,10,
NE06430	53.0	Poor	85.1	53.7	Good	86.4		

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



Hard Winter Wheat Quality Report 2012 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
NE09517	57.4	Good	92.1	61.2	Very Good	98.5		9,
NE09521	53.9	Poor	86.4	56.6	Very Good	91.1		
NE08499	51.9	Very Poor	83.3	41.0	Poor	65.9		9,
NW09627	51.6	Very Poor	82.8	59.9	Very Good	96.3		11,
T175	55.4	Average	88.9	55.4	Good	89.1		
T185	53.6	Poor	85.9	53.8	Good	86.5		2,16,
T179	48.7	Very Poor	78.1	48.3	Average	77.6		1,2,4,9,16,
LCH08-80	56.9	Good	91.3	19.9	Very Poor	32.1		13,14,15,16,18,19,20,21,
LCH08-12	46.0	Very Poor	73.7	26.1	Very Poor	42.0		4,6,13,16,
1863	57.7	Good	92.6	48.5	Average	78.0		16,
KS020638-M-5	62.3	Very Good	99.9	22.4	Very Poor	36.0		15,16,18,
KS020665-M-3	53.1	Poor	85.2	53.6	Good	86.2		13,16,
KS030975-CF-3	53.7	Poor	86.2	47.0	Average	75.6		12,16,
T167	52.2	Very Poor	83.7	41.2	Poor	66.2	1AL	3,5,

2012 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	58.7	10.1	0.8	22.5	5.9	2.34	0.25	48 20	MIXED	22--28--23--27--03	
Scout 66	59.9	11.9	0.8	27.6	7.4	2.54	0.30	64 17	HARD	05--10--19--66--01	
TAM 107	59.1	11.1	0.7	29.6	8.6	2.58	0.35	69 20	HARD	05--09--11--75--01	
Fuller	59.4	11.1	0.8	27.4	7.0	2.60	0.29	66 20	HARD	05--13--15--67--01	
KS07HW5-1-1-3	61.1	11.6	0.7	26.8	7.7	2.49	0.30	73 17	HARD	02--05--12--81--01	
KS07HW5-1-1-4	61.5	11.2	0.6	28.3	8.1	2.55	0.31	69 16	HARD	02--06--17--75--01	
KS07HW5-1-1-5	61.6	11.2	0.7	28.2	7.3	2.57	0.28	73 18	HARD	03--05--10--82--01	
OK07214	60.9	11.2	0.9	28.0	8.0	2.59	0.32	75 19	HARD	03--07--07--83--01	
OK08328	57.9	11.6	0.8	24.7	7.7	2.45	0.29	63 18	HARD	06--12--22--60--02	
OK08229	58.9	11.7	0.8	29.8	8.5	2.64	0.36	68 17	HARD	02--11--14--73--01	
OK09634	59.4	11.4	0.9	25.7	6.9	2.47	0.30	67 19	HARD	05--09--18--68--01	
OK08707W	60.0	11.5	0.8	26.8	6.9	2.50	0.30	65 17	HARD	03--12--19--66--01	
OCW00S063S-1B	59.5	11.2	0.8	25.7	7.9	2.44	0.33	67 20	HARD	07--07--12--74--02	
BL11001	58.0	11.2	0.7	26.8	8.1	2.48	0.30	62 20	MIXED	13--07--20--60--03	
BL11002	59.1	11.2	0.6	27.6	7.2	2.55	0.29	67 18	HARD	06--08--17--69--02	
CO05W111	59.8	11.2	0.8	24.1	6.1	2.41	0.26	66 18	HARD	05--09--19--67--01	
CO07W245	60.2	11.1	0.9	27.9	9.0	2.57	0.36	62 20	MIXED	11--10--16--63--03	
CO07W722-F5	59.0	11.1	0.7	27.3	7.4	2.53	0.32	78 19	HARD	02--06--09--83--01	
HV9W07-1784	60.0	10.5	0.6	27.7	7.5	2.56	0.31	63 18	HARD	06--12--17--65--02	
HV9W07-1942	61.4	10.5	0.7	27.9	7.8	2.59	0.30	71 19	HARD	04--08--12--76--01	
HV9W07-1028	59.3	10.2	0.9	21.2	5.5	2.34	0.23	72 18	HARD	03--07--12--78--01	
TX07A001505	60.5	11.4	0.9	25.7	6.6	2.47	0.28	69 21	HARD	05--08--18--69--01	
TX03A0563-07AZHR247	61.1	10.8	0.8	25.9	6.2	2.56	0.28	68 17	HARD	02--11--15--72--01	
TX06V7266	59.4	10.8	0.8	24.9	6.4	2.49	0.28	70 19	HARD	03--08--17--72--01	
TX08A001128	61.9	10.9	0.7	25.9	8.4	2.46	0.32	66 18	HARD	04--12--16--68--01	
TX08A001249	60.3	10.7	0.8	24.6	6.6	2.43	0.28	73 19	HARD	03--08--10--79--01	
TX07V7327	59.2	11.2	0.9	25.6	7.1	2.40	0.29	63 21	HARD	10--10--15--65--02	
TX08V7173	60.9	11.3	0.8	24.6	7.2	2.45	0.28	69 17	HARD	04--09--12--75--01	
TX08V7313	61.2	11.9	0.8	26.8	6.8	2.58	0.30	78 19	HARD	03--06--07--84--01	
NE06430	58.9	11.0	0.8	25.9	7.4	2.44	0.32	57 21	MIXED	13--15--22--50--03	
NE09517	60.5	12.0	0.9	29.7	7.9	2.66	0.32	68 20	HARD	07--09--10--74--02	
NE09521	58.8	11.4	0.7	25.5	7.2	2.46	0.28	69 18	HARD	03--09--13--75--01	
NE08499	59.3	11.6	0.8	25.9	6.7	2.47	0.26	67 21	HARD	08--11--10--71--02	
NW09627	58.2	11.8	0.8	26.2	7.6	2.50	0.30	59 20	MIXED	12--15--21--52--03	
T175	59.3	11.3	0.8	23.5	7.3	2.39	0.26	66 20	HARD	07--10--18--65--02	
T185	59.3	10.8	0.9	21.8	6.3	2.37	0.25	70 21	HARD	07--08--11--74--02	
T179	56.9	10.5	0.9	21.1	5.5	2.30	0.24	66 21	HARD	08--08--18--66--02	
LCH08-80	59.6	10.7	0.8	25.2	6.4	2.46	0.29	69 19	HARD	06--10--12--72--02	
LCH08-12	58.5	10.9	0.7	24.7	7.1	2.32	0.29	26 19	SOFT	64--22--10--04--05	
KS020319-7-3	60.2	10.4	0.7	26.6	6.7	2.49	0.28	61 19	HARD	09--15--20--56--02	
KS020638-M-5	61.0	10.6	0.7	28.0	7.0	2.62	0.29	70 19	HARD	03--07--15--75--01	
KS020665-M-3	58.5	10.6	0.8	26.9	7.0	2.53	0.30	59 19	HARD	09--16--21--54--02	
KS030975-CF-3	58.9	10.5	0.8	26.3	7.1	2.51	0.31	65 19	HARD	07--09--18--66--02	
T167	58.2	10.8	0.7	31.3	8.5	2.56	0.35	70 20	HARD	05--10--13--72--01	

2012 SRPN Intraregional Production Zone

Northern High Plains

LINE	Wheat		Flour			Noodle Color					
	Protein	Milling Yield	Ash	Protein	PPO	L @ 0	a @ 0	b @ 0	Delta L 24 hrs	Delta a 24 hrs	Delta b 24 hrs
	(%)	(%)	(%)	(%)							
Kharkof	15.0	64.3	0.40	13.2	0.472	81.92	-2.17	23.14	-14.18	1.53	-0.25
Scout 66	13.7	71.8	0.40	12.4	0.449	81.60	-2.12	21.49	-13.85	1.64	2.86
TAM 107	13.2	68.7	0.38	11.6	0.468	79.82	-2.55	25.53	-12.70	2.12	0.24
Fuller	13.7	67.8	0.38	12.4	0.514	82.36	-2.23	21.10	-14.83	1.79	2.56
KS07HW5-1-1-3	13.6	69.0	0.39	12.4	0.410	82.24	-3.17	23.98	-13.33	1.72	1.09
KS07HW5-1-1-4	13.3	69.2	0.39	12.2	0.391	82.24	-3.27	24.53	-11.45	1.76	1.68
KS07HW5-1-1-5	13.4	70.1	0.41	12.2	0.373	82.24	-3.01	23.48	-13.90	1.55	2.55
OK07214	12.5	70.1	0.40	11.6	0.147	82.07	-2.86	24.83	-10.87	1.30	3.80
OK08328	12.6	68.7	0.38	11.6	0.403	80.37	-2.27	24.16	-12.80	1.66	1.47
OK08229	13.4	71.0	0.41	11.9	0.406	79.37	-2.18	23.95	-13.70	2.38	-0.20
OK09634	13.1	70.8	0.39	11.9	0.157	81.60	-2.86	25.09	-10.61	2.04	-0.20
OK08707W	12.6	70.0	0.38	11.2	0.496	82.13	-2.93	24.26	-12.76	1.78	0.98
OCW00S063S-1B	12.9	70.9	0.44	11.4	0.480	81.33	-3.13	25.66	-13.47	1.61	1.52
BL11001	12.8	71.2	0.35	11.4	0.484	82.52	-2.22	20.79	-13.96	1.31	3.47
BL11002	13.1	68.0	0.36	11.7	0.209	81.29	-2.67	25.45	-8.80	1.14	1.81
CO05W111	12.7	69.2	0.36	11.6	0.493	82.46	-2.94	24.66	-12.33	2.42	1.20
CO07W245	12.2	71.0	0.34	10.9	0.517	83.82	-2.94	22.55	-14.92	2.43	1.54
CO07W722-F5	13.0	69.4	0.38	11.0	0.145	84.21	-2.63	21.01	-12.68	1.19	5.04
HV9W07-1784	13.2	71.9	0.38	11.8	0.356	81.43	-2.68	24.00	-11.70	1.99	0.29
HV9W07-1942	12.7	70.8	0.44	11.5	0.372	80.64	-2.99	28.06	-10.73	1.86	0.17
HV9W07-1028	14.0	69.9	0.43	12.6	0.417	80.77	-2.52	24.54	-15.62	1.96	1.24
TX07A001505	12.9	70.2	0.37	11.3	0.449	81.92	-2.80	24.99	-13.66	2.23	2.39
TX03A0563-07AZHR247	13.1	71.0	0.37	11.5	0.380	80.85	-2.35	22.92	-12.01	1.83	0.15
TX06V7266	12.7	69.3	0.39	11.2	0.468	81.32	-2.50	23.50	-12.85	2.32	-0.14
TX08A001128	13.2	69.8	0.40	12.0	0.388	80.84	-2.43	22.77	-14.34	1.67	1.16
TX08A001249	13.1	68.8	0.38	11.6	0.418	82.31	-2.60	23.34	-13.18	2.01	1.34
TX07V7327	12.8	67.9	0.35	11.0	0.474	81.81	-2.60	24.15	-11.73	1.58	1.83
TX08V7173	13.0	70.5	0.36	11.6	0.414	80.78	-2.63	24.38	-12.47	1.97	0.07
TX08V7313	12.6	68.6	0.44	10.9	0.504	81.41	-2.79	24.64	-13.24	2.10	1.47
NE06430	12.7	70.8	0.39	11.3	0.523	82.36	-1.98	19.21	-14.94	1.71	4.02
NE09517	12.8	71.1	0.44	11.6	0.520	82.80	-2.59	20.71	-15.84	2.22	3.04
NE09521	12.9	68.4	0.38	11.7	0.194	82.52	-2.55	22.99	-10.74	1.52	2.79
NE08499	13.1	68.6	0.43	11.8	0.540	81.25	-2.19	25.49	-12.57	1.92	-1.19
NW09627	11.9	69.4	0.38	10.8	0.227	84.01	-3.56	25.69	-9.62	2.14	-0.03
T175	12.9	71.3	0.41	11.3	0.385	82.43	-3.70	28.02	-15.83	3.08	0.84
T185	12.8	69.4	0.38	11.7	0.426	81.80	-3.30	26.38	-12.46	2.59	1.31
T179	13.6	68.8	0.44	12.4	0.602	80.39	-2.92	26.89	-11.87	3.02	-2.63
LCH08-80	13.0	71.0	0.43	11.3	0.425	80.82	-2.61	24.48	-11.32	2.71	-1.30
LCH08-12	12.5	68.6	0.39	11.0	0.393	82.72	-2.88	23.44	-12.73	2.36	0.15
KS020319-7-3	13.0	70.7	0.39	11.7	0.412	81.17	-2.97	25.50	-12.32	2.07	0.56
KS020638-M-5	13.3	71.0	0.35	11.7	0.489	81.61	-2.37	22.46	-12.86	2.49	0.90

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
KS020665-M-3	12.5	70.0	0.43	11.4	0.378	81.24	-2.91	25.32	-11.37	3.11	-1.83
KS030975-CF-3	12.8	69.1	0.38	11.6	0.599	80.31	-3.03	25.71	-12.95	3.22	-2.98
T167	12.8	68.7	0.40	11.2	0.409	81.01	-2.72	25.42	-14.14	2.15	0.98

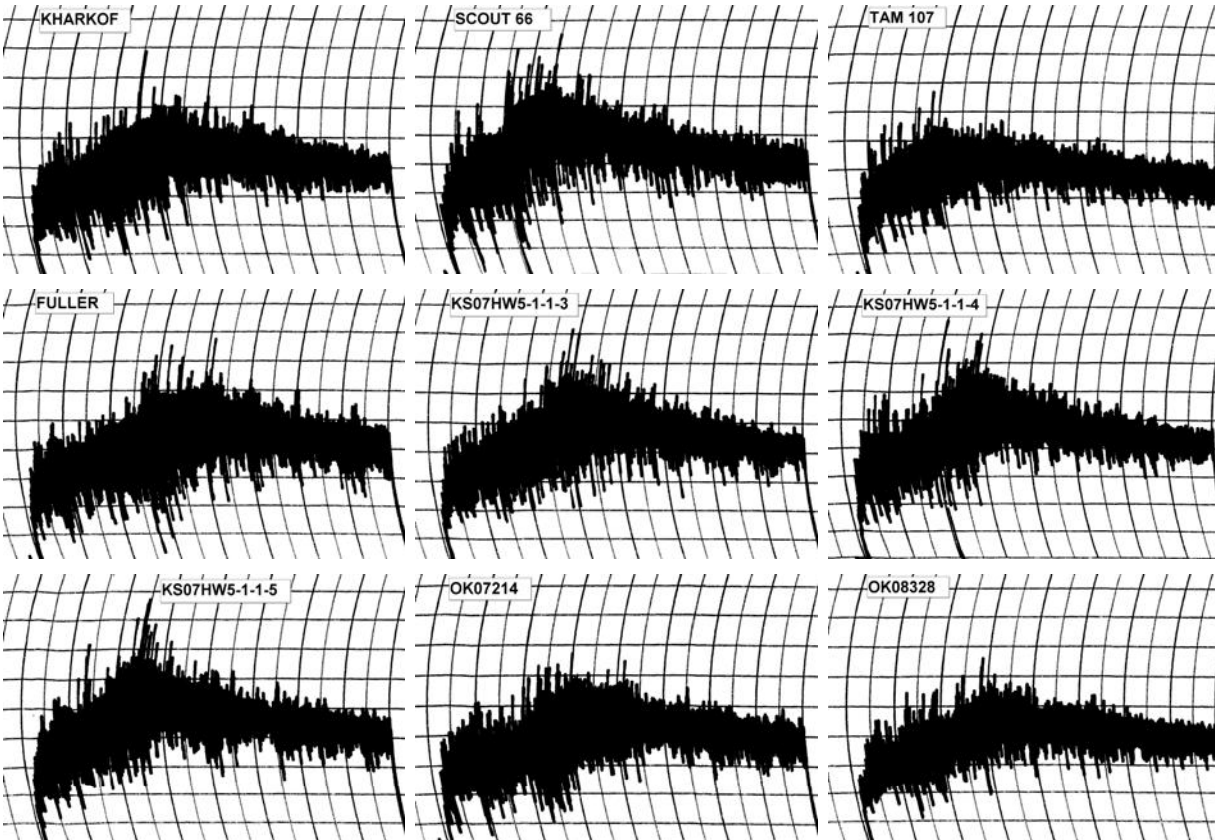
2012 SRPN Intraregional Production Zone

Northern High Plains

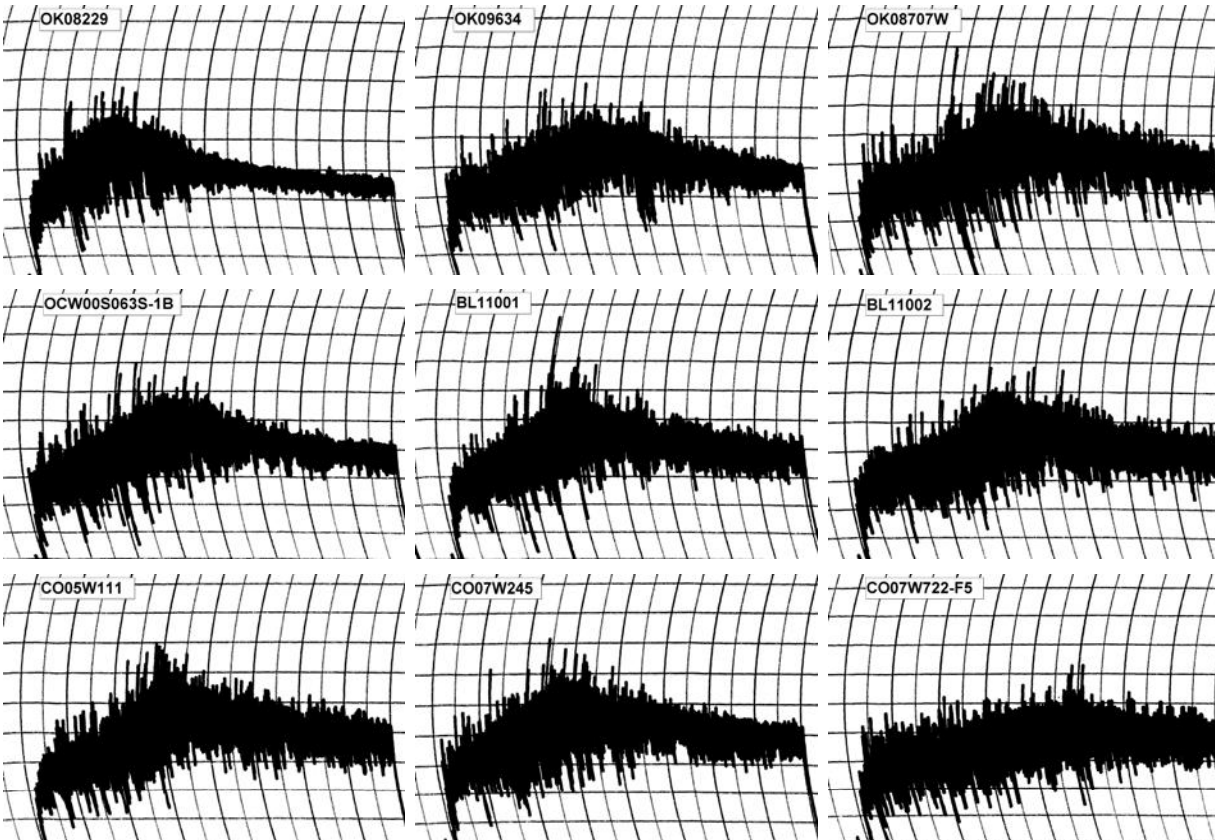
Line	Flour Protein (%)	Mixograph			
		Absorption (%)	As-Is (min)	Corrected (min)	Tolerance
Kharkof	13.2	62.5	3.38	3.38	1
Scout 66	12.4	63.6	2.50	2.50	2
TAM 107	11.6	61.3	2.13	2.03	2
Fuller	12.4	63.5	3.88	3.88	4
KS07HW5-1-1-3	12.4	65.1	3.13	3.13	2
KS07HW5-1-1-4	12.2	63.4	2.88	2.88	1
KS07HW5-1-1-5	12.2	63.3	2.63	2.63	2
OK07214	11.6	62.2	3.25	3.08	2
OK08328	11.6	59.8	3.13	2.97	1
OK08229	11.9	61.7	2.00	1.98	0
OK09634	11.9	61.7	3.38	3.32	0
OK08707W	11.2	63.0	3.50	3.14	4
OCW00S063S-1B	11.4	60.9	3.38	3.12	1
BL11001	11.4	62.9	3.00	2.77	2
BL11002	11.7	61.5	3.38	3.27	2
CO05W111	11.6	62.2	3.13	2.96	2
CO07W245	10.9	60.0	2.88	2.48	2
CO07W722-F5	11.0	61.3	4.38	3.85	3
HV9W07-1784	11.8	61.5	3.63	3.53	2
HV9W07-1942	11.5	59.5	3.13	2.92	1
HV9W07-1028	12.6	64.0	4.00	4.00	4
TX07A001505	11.3	60.8	6.00	5.50	5
TX03A0563-07AZHR247	11.5	62.2	2.50	2.36	1
TX06V7266	11.2	60.6	1.88	1.70	0
TX08A001128	12.0	62.9	2.38	2.38	0
TX08A001249	11.6	62.3	3.63	3.47	4
TX07V7327	11.0	62.3	4.00	3.53	4
TX08V7173	11.6	62.3	3.38	3.23	4
TX08V7313	10.9	62.1	3.50	3.04	4
NE06430	11.3	60.8	4.38	4.03	4
NE09517	11.6	61.3	4.00	3.82	4
NE09521	11.7	62.4	3.75	3.62	4
NE08499	11.8	62.7	3.75	3.68	4
NW09627	10.8	60.9	3.00	2.56	3
T175	11.3	61.8	3.63	3.31	3
T185	11.7	62.4	3.13	3.01	2
T179	12.4	61.6	3.00	3.00	0
LCH08-80	11.3	59.8	2.00	1.84	0
LCH08-12	11.0	59.3	2.50	2.20	0
KS020319-7-3	11.7	61.4	3.00	2.89	0
KS020638-M-5	11.7	61.5	2.00	1.93	0

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
KS020665-M-3	11.4	59.5	3.75	3.50	1
KS030975-CF-3	11.6	61.3	3.63	3.46	2
T167	11.2	60.5	3.13	2.81	3

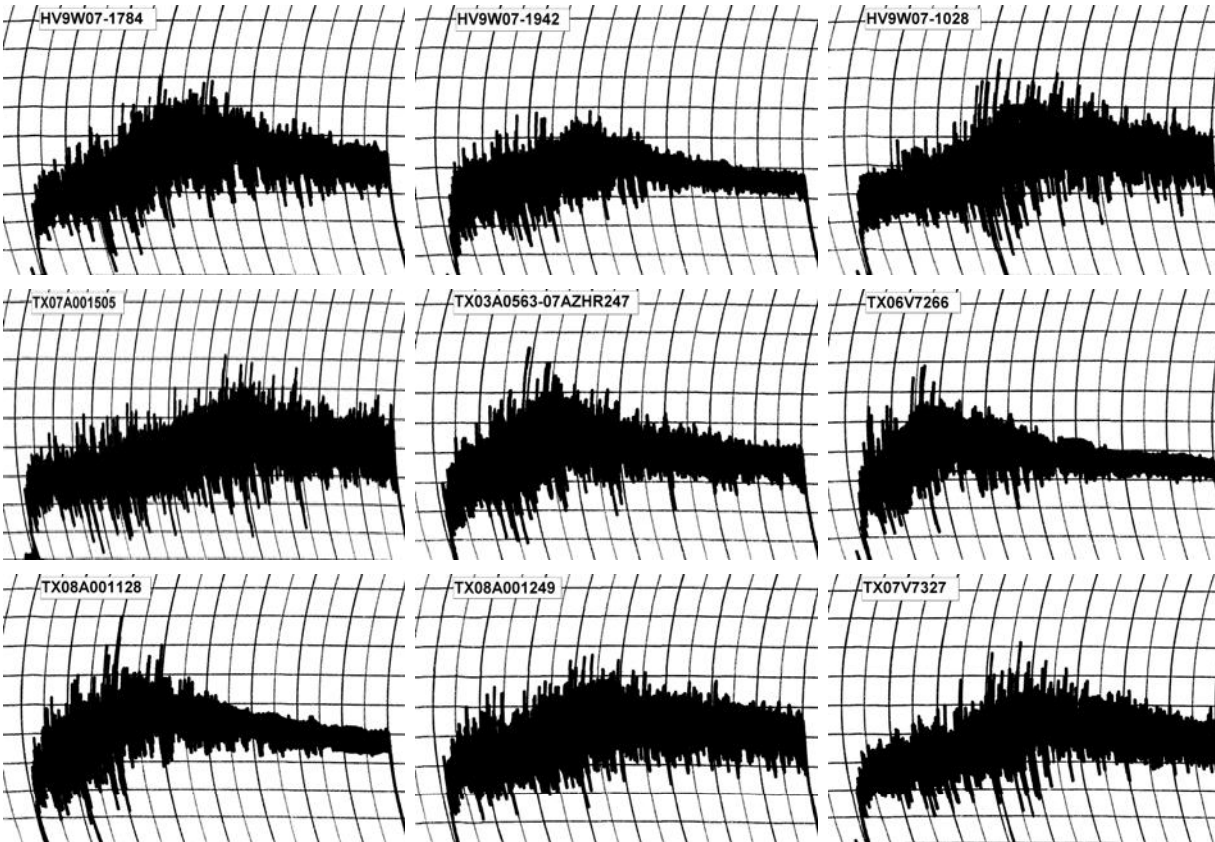
2012 SRPN Intraregional Production Zone Northern High Plains



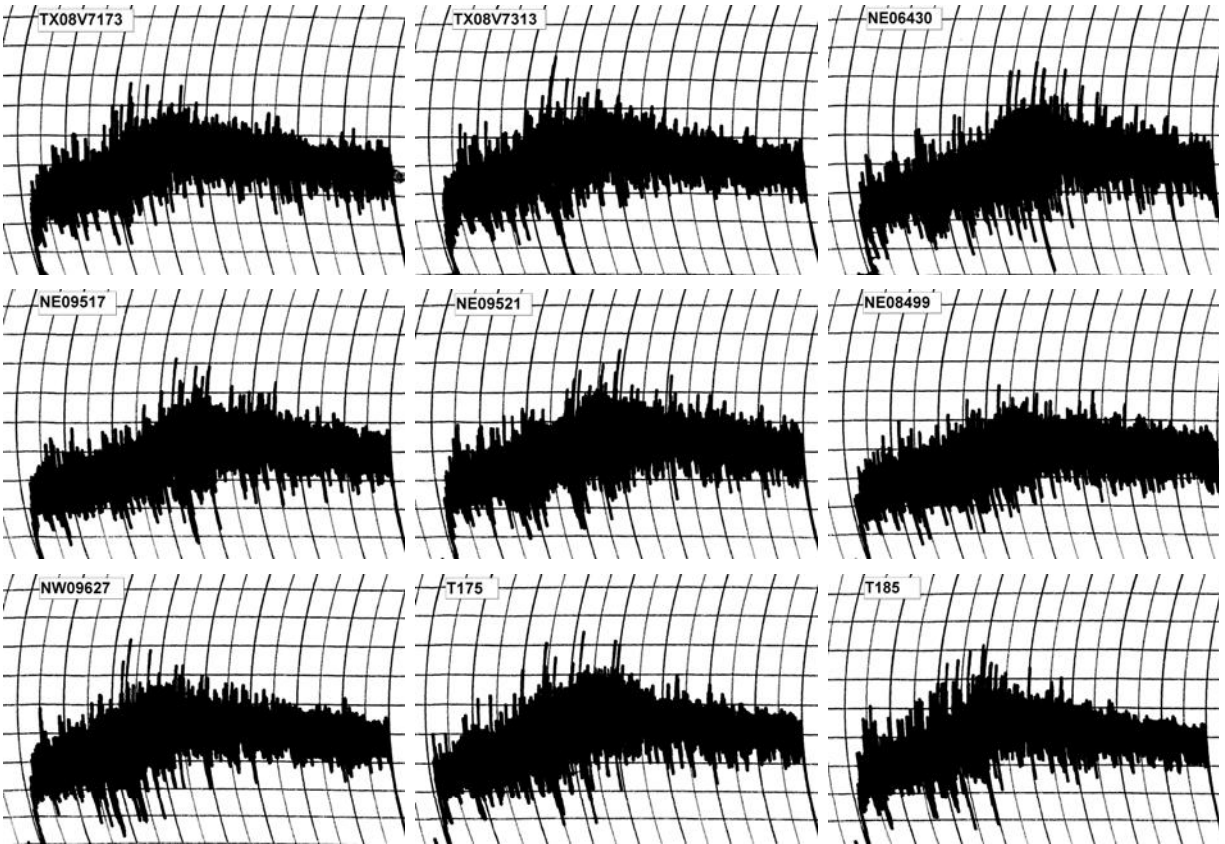
2012 SRPN Intraregional Production Zone Northern High Plains



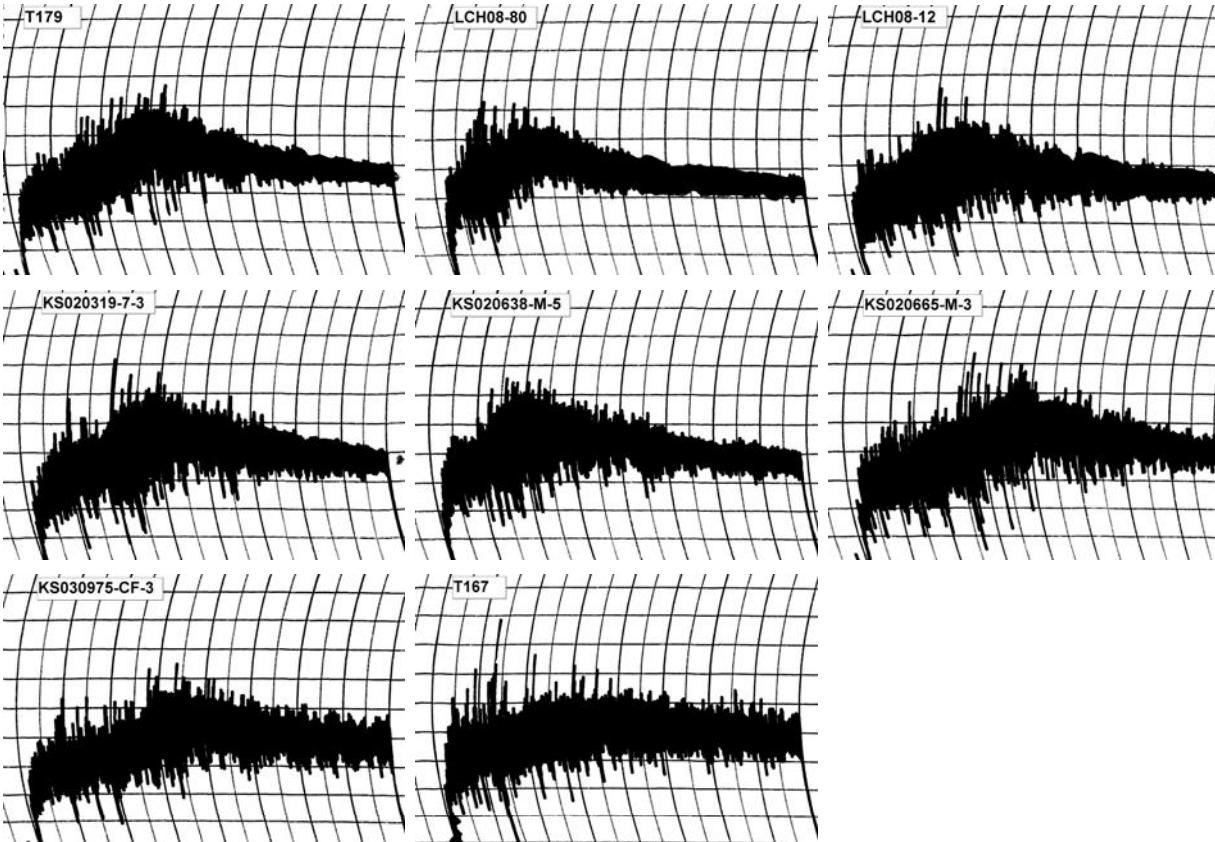
2012 SRPN Intraregional Production Zone Northern High Plains



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2012 SRPN Intraregional Production Zone

Northern High Plains

	RVA							
	Stirring Number	Peak Viscosity	Trough Viscosity	Breakdown	Final Viscosity	Set back	Peak Time	Pasting Temp
Line	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(min)	(Deg. C)
Kharkof	164.50	238.25	179.83	58.42	297.92	118.08	6.53	
Scout 66	148.50	216.83	160.42	56.42	275.42	115.00	6.33	
TAM 107	136.75	258.75	193.67	65.08	315.50	121.83	6.53	
Fuller	154.83	221.67	173.17	48.50	292.92	119.75	6.40	
KS07HW5-1-1-3	133.17	285.42	183.00	102.42	283.00	100.00	6.47	
KS07HW5-1-1-4	131.42	287.08	186.67	100.42	283.75	97.08	6.53	
KS07HW5-1-1-5	133.58	282.83	183.25	99.58	280.67	97.42	6.53	
OK07214	143.08	181.83	146.17	35.67	252.58	106.42	6.40	
OK08328	129.42	268.67	168.25	100.42	282.17	113.92	6.33	
OK08229	145.33	206.50	152.58	53.92	265.83	113.25	6.33	
OK09634	152.08	226.00	168.33	57.67	278.75	110.42	6.47	
OK08707W	118.17	255.67	173.58	82.08	281.50	107.92	6.40	
OCW00S063S-1B	129.08	173.67	133.83	39.83	248.83	115.00	6.13	
BL11001	131.00	181.42	148.17	33.25	273.50	125.33	6.27	
BL11002	127.92	240.17	167.33	72.83	281.42	114.08	6.33	
CO05W111	143.67	218.75	161.42	57.33	282.58	121.17	6.33	
CO07W245	122.17	273.08	187.67	85.42	294.17	106.50	6.53	
CO07W722-F5	150.58	203.83	150.25	53.58	266.08	115.83	6.27	
HV9W07-1784	145.50	230.33	169.83	60.50	286.25	116.42	6.47	
HV9W07-1942	137.83	199.50	149.58	49.92	259.58	110.00	6.33	
HV9W07-1028	145.67	224.67	162.33	62.33	270.67	108.33	6.40	
TX07A001505	144.83	228.67	170.75	57.92	296.42	125.67	6.33	
TX03A0563-07AZHR247	144.75	194.50	160.33	34.17	282.58	122.25	6.33	
TX06V7266	137.50	225.25	171.33	53.92	297.25	125.92	6.40	
TX08A001128	135.25	291.67	190.92	100.75	296.25	105.33	6.53	
TX08A001249	150.25	270.25	195.50	74.75	313.50	118.00	6.47	
TX07V7327	156.17	218.83	169.83	49.00	299.17	129.33	6.33	
TX08V7173	130.75	261.58	185.42	76.17	298.67	113.25	6.47	
TX08V7313	133.42	224.08	170.92	53.17	285.75	114.83	6.40	
NE06430	138.00	240.92	170.33	70.58	290.42	120.08	6.40	
NE09517	127.33	213.67	155.17	58.50	277.83	122.67	6.20	
NE09521	152.08	229.17	175.92	53.25	294.00	118.08	6.47	
NE08499	139.33	215.33	162.50	52.83	284.42	121.92	6.27	
NW09627	121.58	220.33	158.75	61.58	287.08	128.33	6.20	
T175	138.83	228.83	165.58	63.25	283.42	117.83	6.33	
T185	142.42	220.58	162.08	58.50	282.83	120.75	6.33	
T179	132.58	230.33	169.83	60.50	294.83	125.00	6.40	
LCH08-80	127.50	238.92	169.75	69.17	287.08	117.33	6.40	
LCH08-12	131.00	205.25	157.08	48.17	287.08	130.00	6.27	
KS020319-7-3	150.33	272.25	182.58	89.67	286.17	103.58	6.47	
KS020638-M-5	138.92	268.33	185.58	82.75	288.92	103.33	6.53	
KS020665-M-3	155.17	232.75	171.25	61.50	282.92	111.67	6.47	
KS030975-CF-3	148.25	208.00	164.08	43.92	284.58	120.50	6.40	
T167	155.67	248.83	185.75	63.08	305.75	120.00	6.47	

2012 SRPN Intraregional Production Zone

Northern High Plains

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	13.2	62.1	4.00	4.00	171.7	8.0	5.0	955	6.5	64
Scout 66	12.4	61.1	2.63	2.63	170.2	7.8	5.0	915	6.2	65
TAM 107	11.6	60.2	2.88	2.75	169.9	7.0	2.5	830	5.6	61
Fuller	12.4	63.3	4.50	4.50	172.6	8.0	4.0	945	6.4	69
KS07HW5-1-1-3	12.4	62.2	3.50	3.50	171.9	7.8	4.5	1020	6.9	77
KS07HW5-1-1-4	12.2	62.3	3.88	3.88	171.5	7.9	4.0	1045	7.0	81
KS07HW5-1-1-5	12.2	60.3	3.50	3.50	169.2	6.9	3.5	885	6.1	64
OK07214	11.6	61.2	4.00	3.79	170.3	7.4	3.0	885	6.0	68
OK08328	11.6	58.9	3.75	3.56	168.2	7.0	2.5	820	5.5	60
OK08229	11.9	56.9	2.25	2.22	166.5	7.1	2.5	810	5.6	57
OK09634	11.9	61.2	3.63	3.57	170.0	6.9	4.0	845	5.8	61
OK08707W	11.2	62.2	4.63	4.16	171.7	7.0	5.0	870	5.9	70
OCW00S063S-1B	11.4	59.1	3.75	3.46	168.6	7.1	4.0	840	5.7	64
BL11001	11.4	58.1	3.25	3.00	167.4	7.7	5.0	925	6.4	74
BL11002	11.7	61.2	4.50	4.36	170.1	7.3	5.0	900	6.1	69
CO05W111	11.6	58.9	3.50	3.31	168.2	7.5	5.0	900	6.2	70
CO07W245	10.9	57.9	3.88	3.35	167.2	7.4	4.0	855	5.9	70
CO07W722-F5	11.0	60.8	4.75	4.17	169.8	7.8	4.0	875	5.9	71
HV9W07-1784	11.8	61.1	4.00	3.89	170.0	7.0	4.0	875	5.9	65
HV9W07-1942	11.5	58.0	3.50	3.27	167.2	7.0	1.5	775	5.3	56
HV9W07-1028	12.6	63.1	5.00	5.00	172.1	7.5	4.5	955	6.5	68
TX07A001505	11.3	60.1	6.75	6.19	169.2	6.8	4.5	840	5.7	65
TX03A0563-07AZHR247	11.5	60.2	3.25	3.07	169.6	7.3	4.0	880	6.0	68
TX06V7266	11.2	58.2	2.25	2.04	167.1	7.1	2.5	785	5.4	59
TX08A001128	12.0	60.1	3.00	2.99	169.1	7.3	4.5	915	6.2	68
TX08A001249	11.6	62.2	4.63	4.42	171.5	7.7	3.5	935	6.3	74
TX07V7327	11.0	62.0	4.25	3.75	172.1	7.0	4.0	820	5.4	64
TX08V7173	11.6	60.3	3.50	3.35	169.3	7.2	4.5	905	6.1	70
TX08V7313	10.9	61.0	4.25	3.69	169.8	7.1	4.0	865	5.9	71
NE06430	11.3	61.8	5.75	5.28	171.1	7.5	4.0	885	6.0	70
NE09517	11.6	60.8	4.13	3.94	170.2	7.3	5.0	925	6.3	72
NE09521	11.7	62.0	4.75	4.59	171.4	7.0	4.0	870	5.9	65
NE08499	11.8	61.0	5.25	5.15	170.3	7.2	3.5	880	6.1	66
NW09627	10.8	60.0	4.75	4.05	169.0	7.5	5.0	925	6.4	80
T175	11.3	61.0	4.75	4.34	170.2	7.2	4.0	890	6.0	71
T185	11.7	62.3	4.00	3.85	171.8	7.3	4.0	920	6.1	71
T179	12.4	60.1	3.25	3.25	169.6	7.2	4.0	925	6.2	67
LCH08-80	11.3	59.1	2.25	2.07	168.7	6.6	2.0	740	4.9	53
LCH08-12	11.0	58.6	3.63	3.19	167.8	7.4	3.5	830	5.6	66
KS020319-7-3	11.7	60.3	3.63	3.50	169.4	7.3	4.0	910	6.1	70
KS020638-M-5	11.7	59.5	3.00	2.90	168.7	6.7	2.5	815	5.6	59
KS020665-M-3	11.4	59.4	4.75	4.43	168.2	7.3	4.0	925	6.4	74
KS030975-CF-3	11.6	58.4	4.00	3.82	167.3	7.0	4.0	855	5.9	64

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
T167	11.2	63.8	4.25	3.82	172.4	7.6	3.5	915	6.2	75

2012 SRPN Intraregional Production Zone

Northern High Plains

12-SNH1001



12-SNH1002



12-SNH1003



12-SNH1004



12-SNH1005



12-SNH1006



12-SNH1007



12-SNH1008



12-SNH1009



2012 SRPN Intraregional Production Zone

Northern High Plains

12-SNH1010



12-SNH1011



12-SNH1012



12-SNH1013



12S-NH1014



12-SNH1015



12-SNH1016



12-SNH1017



12-SNH1018



2012 SRPN Intraregional Production Zone

Northern High Plains

12-SNH1019



12-SNH1020



12-SNH1021



12-SNH1022



12-SNH1023



12-SNH1024



12-SNH1025



12-SNH1026

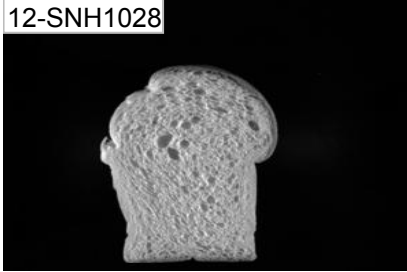


12-SNH1027



2012 SRPN Intraregional Production Zone Northern High Plains

12-SNH1028



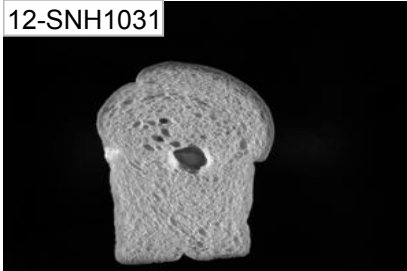
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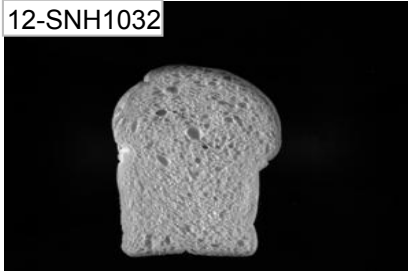
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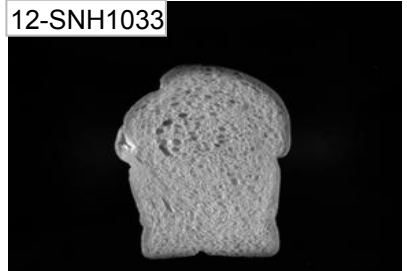
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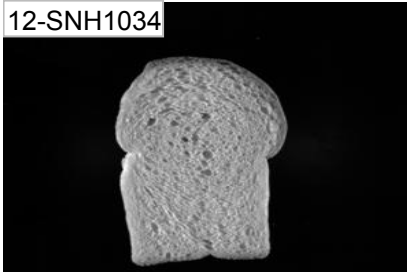
12-SNH1032



12-SNH1033



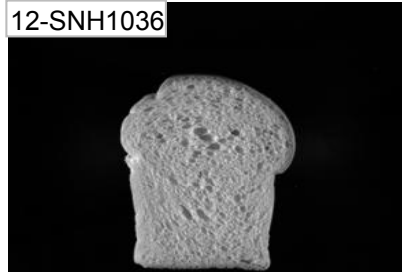
12-SNH1034



12-SNH1035



12-SNH1036



2012 SRPN Intraregional Production Zone

Northern High Plains

12-SNH1037



12-SNH1038



12-SNH1039



12-SNH1040



12-SNH1041



12-SNH1042



12-SNH1043



12-SNH1044





Hard Winter Wheat Quality Report 2012 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	69.8	60.8	Very Good	91.7		4,8,9,10,16,
Scout 66	61.9	Very Good	95.9	46.2	Average	69.6		16,
TAM 107	56.7	Average	87.8	48.5	Average	73.1	1AL	
Fuller	59.7	Good	92.5	58.9	Good	88.8		
KS07HW5-1-1-3	64.1	Very Good	99.2	57.2	Good	86.4		
KS07HW5-1-1-4	64.5	Very Good	99.9	51.4	Average	77.5		
KS07HW5-1-1-5	62.5	Very Good	96.7	66.3	Very Good	100.0		
Gallagher	64.6	Very Good	100.0	34.6	Poor	52.2	h1BL	
OK08328	56.9	Average	88.0	31.3	Very Poor	47.2	h1BL	18,
OK08229	58.8	Good	91.1	34.5	Very Poor	52.0		16,20,
OK09634	59.4	Good	91.9	43.0	Poor	64.9		
OK08707W	56.7	Average	87.8	37.3	Poor	56.2		5,
OCW00S063S-1B	58.6	Good	90.7	49.0	Average	73.9	h1AL	16,
BL11001	52.0	Very Poor	80.5	48.1	Average	72.5		1,16,
BL11002	58.0	Good	89.8	54.4	Good	82.0		
CO05W111	56.4	Poor	87.3	32.6	Very Poor	49.2		
Antero	56.7	Average	87.9	46.2	Average	69.7		5,11,13,
CO07W722-F5	56.4	Average	87.4	24.4	Very Poor	36.9		15,18,20,
HV9W07-1784	58.0	Good	89.8	37.6	Poor	56.7		
HV9W07-1942	56.3	Poor	87.2	39.3	Poor	59.3	1BL	21,
HV9W07-1028	54.6	Poor	84.5	62.4	Very Good	94.2		2,4,14,15,
TX07A001505	58.7	Good	91.0	24.3	Very Poor	36.6		14,15,
TX03A0563-07AZHR247	58.3	Good	90.3	52.9	Good	79.8		
TX06V7266	54.4	Poor	84.3	28.8	Very Poor	43.5		12,16,17,19,20,
TX08A001128	57.3	Average	88.7	50.6	Average	76.4		3,16,
TX08A001249	57.0	Average	88.2	60.4	Very Good	91.0	1AL	
TX07V7327	53.9	Very Poor	83.4	37.0	Poor	55.9		11,
TX08V7173	63.6	Very Good	98.4	57.6	Good	87.0		
TX08V7313	55.6	Poor	86.0	56.5	Good	85.2		9,10,
NE06430	55.2	Poor	85.5	42.4	Poor	64.0		15,

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 2012 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
NE09517	60.8	Very Good	94.1	40.9	Poor	61.7		14,15,
NE09521	54.6	Poor	84.6	38.4	Poor	57.9		
NE08499	51.0	Very Poor	79.0	55.0	Good	83.0		
NW09627	52.5	Very Poor	81.3	54.4	Good	82.1		
T175	56.6	Average	87.7	60.8	Very Good	91.7		1,2,4,
T185	56.0	Poor	86.6	62.0	Very Good	93.5		2,4,
T179	52.9	Very Poor	81.9	59.6	Very Good	89.9		1,2,4,
LCH08-80	60.1	Good	93.1	22.8	Very Poor	34.4		12,16,17,21,
LCH08-12	44.1	Very Poor	68.2	26.4	Very Poor	39.9		1,4,6,8,16,
1863	57.6	Average	89.2	63.0	Very Good	95.1		
KS020638-M-5	61.2	Very Good	94.7	45.3	Average	68.4		16,
KS020665-M-3	53.8	Very Poor	83.3	47.7	Average	71.9		9,15,17,
KS030975-CF-3	55.3	Poor	85.6	58.4	Good	88.1		
T167	52.6	Very Poor	81.4	35.3	Very Poor	53.2	1AL	3,5,

2012 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	58.7	10.9	0.6	22.7	6.5	2.35	0.26	50 21	MIXED	22--26--24--28--03	
Scout 66	60.4	10.6	0.5	26.7	8.4	2.52	0.31	68 18	HARD	04--07--20--69--01	
TAM 107	58.2	10.5	0.6	26.6	7.3	2.52	0.30	69 20	HARD	04--10--14--72--01	
Fuller	62.2	9.2	0.6	27.6	7.6	2.63	0.31	66 18	HARD	03--08--24--65--01	
KS07HW5-1-1-3	62.3	9.0	0.8	25.9	7.2	2.52	0.29	78 17	HARD	02--02--08--88--01	
KS07HW5-1-1-4	62.3	9.2	0.8	27.1	7.3	2.56	0.28	78 17	HARD	01--03--09--87--01	
KS07HW5-1-1-5	62.5	9.1	0.7	26.0	7.6	2.53	0.30	79 17	HARD	00--03--09--88--01	
OK07214	61.4	9.6	0.6	29.3	7.9	2.68	0.31	73 17	HARD	00--07--15--78--01	
OK08328	60.3	9.6	0.6	25.8	7.9	2.55	0.30	69 19	HARD	03--09--16--72--01	
OK08229	59.7	10.2	0.5	27.5	8.2	2.58	0.35	69 18	HARD	03--09--16--72--01	
OK09634	60.4	10.1	0.6	27.6	7.6	2.60	0.32	67 19	HARD	04--10--23--63--01	
OK08707W	60.1	10.5	0.6	28.0	8.4	2.59	0.36	66 19	HARD	03--14--22--61--01	
OCW00S063S-1B	60.1	9.5	0.6	25.1	7.3	2.51	0.30	68 19	HARD	03--10--19--68--01	
BL11001	57.4	9.1	0.6	23.4	7.7	2.40	0.30	64 19	HARD	04--15--18--63--01	
BL11002	59.4	10.2	0.5	27.9	8.0	2.61	0.32	68 19	HARD	02--11--19--68--01	
CO05W111	60.0	10.1	0.6	24.0	6.9	2.45	0.28	65 20	HARD	05--13--22--60--01	
CO07W245	60.1	9.9	0.6	27.4	8.7	2.57	0.36	61 20	HARD	09--17--19--55--02	
CO07W722-F5	58.5	9.9	0.6	24.4	7.2	2.46	0.29	80 19	HARD	01--03--11--85--01	
HV9W07-1784	59.5	9.8	0.7	27.5	8.9	2.58	0.34	62 20	HARD	07--16--19--58--02	
HV9W07-1942	60.9	10.0	0.7	26.7	8.1	2.57	0.30	70 19	HARD	02--09--20--69--01	
HV9W07-1028	59.5	9.9	0.6	21.2	6.1	2.34	0.26	70 18	HARD	03--08--18--71--01	
TX07A001505	61.0	10.0	0.6	24.8	7.0	2.48	0.28	71 20	HARD	02--10--16--72--01	
TX03A0563-07AZHR247	60.1	10.2	0.6	23.6	6.5	2.47	0.28	69 18	HARD	02--05--28--65--01	
TX06V7266	58.8	10.5	0.6	23.5	6.6	2.43	0.28	66 19	HARD	05--10--22--63--01	
TX08A001128	62.6	10.6	0.5	27.1	9.1	2.55	0.33	65 20	HARD	05--14--21--60--01	
TX08A001249	60.4	10.3	0.5	25.3	7.3	2.48	0.31	72 20	HARD	02--10--16--72--01	
TX07V7327	59.7	10.6	0.4	26.6	7.6	2.48	0.32	65 19	HARD	03--16--21--60--01	
TX08V7173	61.1	10.2	0.6	24.4	6.2	2.47	0.24	71 19	HARD	03--04--21--72--01	
TX08V7313	60.7	10.5	0.5	25.1	7.2	2.56	0.32	76 20	HARD	01--08--12--79--01	
NE06430	58.6	10.5	0.5	26.1	7.8	2.52	0.31	62 19	HARD	07--15--20--58--02	
NE09517	60.7	10.9	0.4	27.8	7.2	2.61	0.28	67 18	HARD	04--10--17--69--01	
NE09521	58.6	10.4	0.5	26.1	8.3	2.52	0.35	71 17	HARD	01--08--14--77--01	
NE08499	57.9	10.6	0.5	25.5	7.5	2.48	0.30	66 20	HARD	04--13--23--60--01	
NW09627	58.2	10.7	0.6	24.5	7.5	2.48	0.32	61 19	HARD	08--13--21--58--02	
T175	57.7	10.4	0.6	19.5	5.1	2.29	0.23	72 19	HARD	02--07--14--77--01	
T185	59.0	10.3	0.6	20.5	5.8	2.36	0.26	74 20	HARD	02--07--15--76--01	
T179	57.3	10.3	0.6	21.0	5.0	2.34	0.23	67 19	HARD	04--12--17--67--01	
LCH08-80	60.1	10.4	0.5	24.3	6.4	2.52	0.30	71 19	HARD	01--09--17--73--01	
LCH08-12	57.7	10.3	0.6	24.8	7.3	2.33	0.28	24 21	SOFT	68--15--12--05--05	
KS020319-7-3	60.8	10.3	0.5	25.6	7.5	2.49	0.27	64 21	HARD	07--11--21--61--02	
KS020638-M-5	61.5	10.5	0.6	28.0	8.1	2.64	0.33	66 20	HARD	04--13--22--61--01	
KS020665-M-3	58.7	10.2	0.5	24.9	7.5	2.49	0.30	63 19	HARD	05--13--25--57--01	
KS030975-CF-3	59.1	10.3	0.4	25.4	7.0	2.54	0.32	67 19	HARD	04--11--18--67--01	
T167	59.0	10.4	0.4	31.0	10.1	2.60	0.39	71 19	HARD	01--10--16--73--01	

2012 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	14.6	68.0	0.46	13.1	0.567	79.69	-1.02	23.25	-12.85	1.41	1.84
Scout 66	14.1	73.9	0.42	12.5	0.541	80.73	-0.74	22.12	-12.75	1.20	2.78
TAM 107	12.8	71.6	0.41	11.5	0.555	80.84	-1.29	25.51	-13.21	1.60	2.97
Fuller	13.2	70.3	0.40	11.8	0.639	81.03	-1.02	22.83	-12.19	1.27	2.86
KS07HW5-1-1-3	13.3	71.5	0.40	11.9	0.476	82.60	-1.50	22.66	-11.42	1.02	3.78
KS07HW5-1-1-4	13.3	71.7	0.41	12.0	0.510	81.91	-1.81	24.52	-10.41	1.09	1.42
KS07HW5-1-1-5	13.2	71.0	0.41	11.8	0.491	82.33	-1.78	23.70	-9.94	0.10	3.79
OK07214	12.8	72.4	0.40	11.7	0.191	81.61	-1.33	23.95	-9.55	-0.45	5.51
OK08328	12.1	69.9	0.36	10.8	0.534	80.87	-1.09	23.35	-10.30	-0.06	2.85
OK08229	13.6	71.8	0.39	11.8	0.564	79.36	-0.88	24.98	-11.38	0.41	1.40
OK09634	13.1	71.5	0.39	11.5	0.180	82.62	-1.24	21.31	-10.13	1.36	4.94
OK08707W	12.5	71.1	0.39	10.9	0.581	82.87	-1.42	22.27	-12.03	0.36	4.03
OCW00S063S-1B	12.7	72.1	0.42	11.1	0.530	81.29	-1.46	25.69	-11.11	-0.19	1.83
BL11001	12.7	70.5	0.40	11.2	0.548	83.16	-0.83	19.14	-12.33	0.05	4.75
BL11002	13.2	71.5	0.41	11.9	0.245	81.77	-1.65	24.94	-10.95	0.14	3.20
CO05W111	12.5	70.9	0.39	10.9	0.571	83.57	-1.22	20.29	-12.15	0.12	6.37
CO07W245	11.8	72.1	0.37	10.1	0.632	83.03	-2.45	21.71	-13.12	1.11	4.96
CO07W722-F5	12.7	70.4	0.41	11.1	0.251	82.73	-2.35	23.04	-10.29	1.25	3.33
HV9W07-1784	13.0	73.3	0.38	11.5	0.450	82.25	-2.05	21.71	-11.75	1.83	1.99
HV9W07-1942	12.9	70.3	0.43	11.6	0.468	80.50	-2.35	26.11	-10.41	1.37	2.98
HV9W07-1028	13.9	69.3	0.40	12.4	0.501	81.21	-2.30	24.66	-12.17	0.97	2.03
TX07A001505	12.7	70.7	0.36	11.0	0.562	82.60	-2.47	23.85	-12.04	1.01	5.57
TX03A0563-07AZHR247	13.3	70.5	0.39	11.5	0.511	81.97	-2.25	23.71	-11.05	1.01	1.51
TX06V7266	12.8	69.7	0.38	11.1	0.673	80.94	-2.15	23.11	-11.72	1.67	2.51
TX08A001128	13.2	71.6	0.41	11.6	0.523	81.31	-2.31	22.94	-12.35	1.90	3.21
TX08A001249	12.6	70.8	0.41	11.1	0.552	82.09	-2.06	21.71	-13.79	1.36	3.19
TX07V7327	12.1	69.2	0.38	10.6	0.575	82.33	-2.06	21.71	-10.47	0.40	5.10
TX08V7173	13.1	72.4	0.37	11.2	0.423	81.88	-1.98	21.52	-10.87	1.20	3.42
TX08V7313	12.5	70.4	0.48	10.6	0.587	81.94	-2.43	22.96	-11.92	1.19	5.12
NE06430	12.5	70.9	0.39	10.9	0.668	81.56	-2.02	21.84	-12.63	1.01	3.97
NE09517	12.5	71.7	0.42	11.0	0.662	82.98	-2.57	22.36	-13.08	1.46	3.56
NE09521	13.0	69.9	0.39	11.7	0.274	81.99	-1.84	21.74	-10.23	1.43	2.99
NE08499	12.8	69.4	0.42	11.4	0.702	81.73	-2.01	22.10	-12.75	1.23	3.25
NW09627	11.8	70.7	0.42	10.7	0.280	84.99	-2.53	21.59	-11.32	0.98	5.93
T175	12.7	70.4	0.36	11.4	0.524	83.01	-3.03	26.17	-11.88	1.01	5.64
T185	12.8	70.4	0.39	11.4	0.508	82.20	-2.91	25.66	-11.56	0.73	5.12
T179	13.0	69.2	0.39	11.6	0.704	81.72	-2.80	25.19	-9.86	1.05	2.55
LCH08-80	12.7	72.2	0.42	11.1	0.549	81.39	-2.15	22.07	-10.62	0.91	3.82
LCH08-12	12.5	67.8	0.36	11.1	0.492	83.73	-2.45	19.78	-12.48	1.32	5.10
KS020319-7-3	12.5	72.1	0.43	11.1	0.508	82.50	-2.59	22.53	-12.37	1.33	4.36
KS020638-M-5	12.6	72.9	0.40	11.0	0.580	81.44	-2.30	22.10	-11.86	1.49	3.69

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
	(%)	(%)	(%)	(%)							
KS020665-M-3	12.9	71.0	0.44	11.7	0.450	80.70	-2.45	25.77	-10.58	1.69	1.47
KS030975-CF-3	12.7	69.8	0.37	11.4	0.670	81.65	-2.31	23.23	-12.90	1.35	2.65
T167	12.7	69.3	0.39	11.0	0.539	82.71	-2.31	22.40	-13.27	1.36	5.73

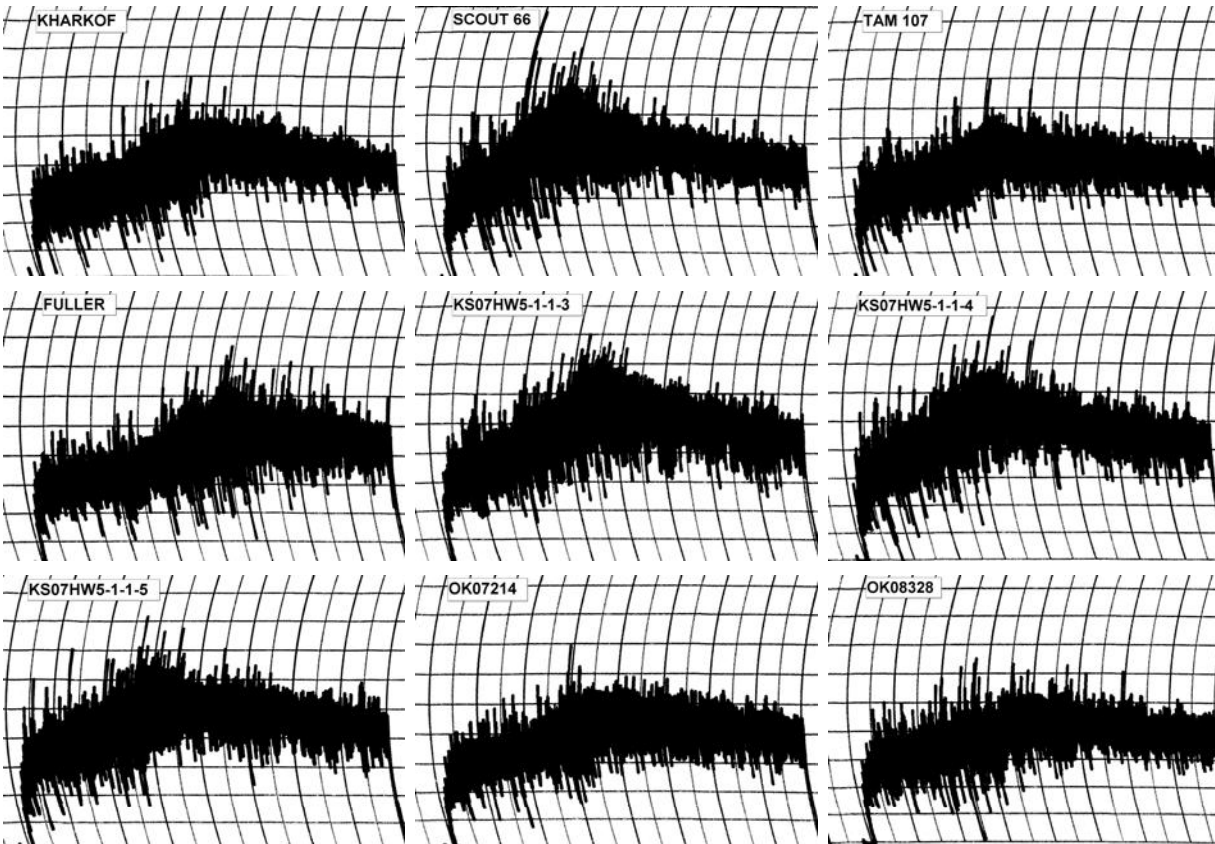
2012 SRPN Intraregional Production Zone

South Central Plains

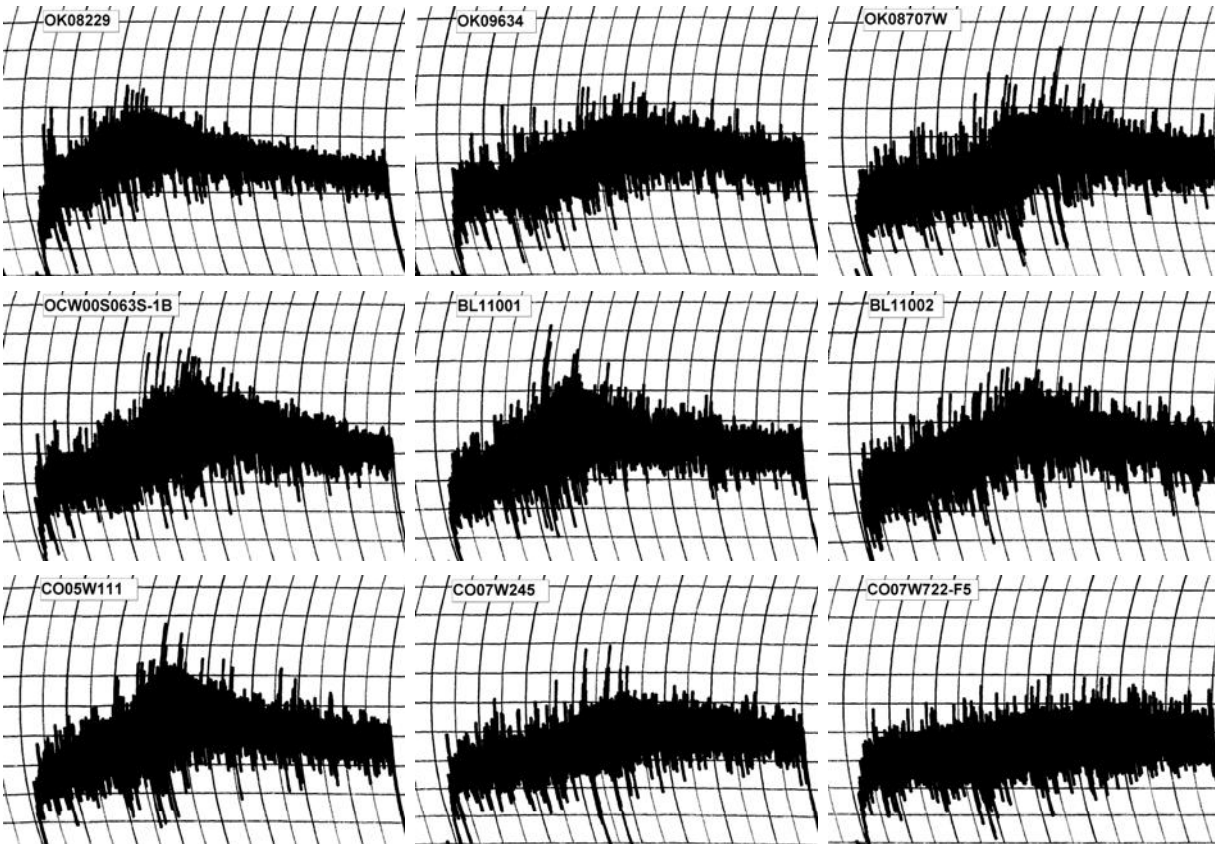
Line	Flour Protein (%)	Mixograph			
		Absorption (%)	As-Is (min)	Corrected (min)	Tolerance
Kharkof	13.1	63.9	3.75	3.75	2
Scout 66	12.5	63.8	3.00	3.00	2
TAM 107	11.5	61.1	3.25	3.07	3
Fuller	11.8	62.6	4.63	4.50	5
KS07HW5-1-1-3	11.9	63.2	3.63	3.58	4
KS07HW5-1-1-4	12.0	63.0	3.38	3.38	4
KS07HW5-1-1-5	11.8	63.1	3.13	3.04	4
OK07214	11.7	62.5	3.50	3.38	3
OK08328	10.8	60.5	3.75	3.21	3
OK08229	11.8	61.5	2.50	2.43	1
OK09634	11.5	62.2	4.00	3.78	4
OK08707W	10.9	62.2	4.50	3.92	5
OCW00S063S-1B	11.1	60.4	3.63	3.23	2
BL11001	11.2	62.1	3.00	2.72	2
BL11002	11.9	61.8	4.00	3.96	4
CO05W111	10.9	61.7	3.25	2.83	3
CO07W245	10.1	59.9	4.13	3.21	3
CO07W722-F5	11.1	61.5	5.63	5.04	4
HV9W07-1784	11.5	60.7	4.38	4.14	4
HV9W07-1942	11.6	60.9	4.13	3.95	3
HV9W07-1028	12.4	62.7	6.38	6.38	4
TX07A001505	11.0	60.4	7.63	6.75	5
TX03A0563-07AZHR247	11.5	62.1	3.75	3.53	3
TX06V7266	11.1	60.4	2.63	2.35	1
TX08A001128	11.6	62.3	3.00	2.85	2
TX08A001249	11.1	61.4	5.00	4.47	4
TX07V7327	10.6	63.0	4.50	3.72	4
TX08V7173	11.2	61.7	4.00	3.64	4
TX08V7313	10.6	60.6	3.75	3.11	4
NE06430	10.9	60.1	5.50	4.78	4
NE09517	11.0	60.2	5.50	4.84	5
NE09521	11.7	62.5	4.75	4.59	4
NE08499	11.4	62.0	4.50	4.19	3
NW09627	10.7	60.7	3.50	2.94	4
T175	11.4	61.9	4.88	4.53	4
T185	11.4	62.0	4.25	3.96	4
T179	11.6	61.3	3.50	3.33	3
LCH08-80	11.1	60.5	2.38	2.13	1
LCH08-12	11.1	60.9	3.00	2.66	2
KS020319-7-3	11.1	60.5	3.50	3.13	3
KS020638-M-5	11.0	60.3	3.25	2.86	2

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
KS020665-M-3	11.7	60.4	5.38	5.18	4
KS030975-CF-3	11.4	61.0	4.38	4.08	4
T167	11.0	60.3	5.25	4.62	3

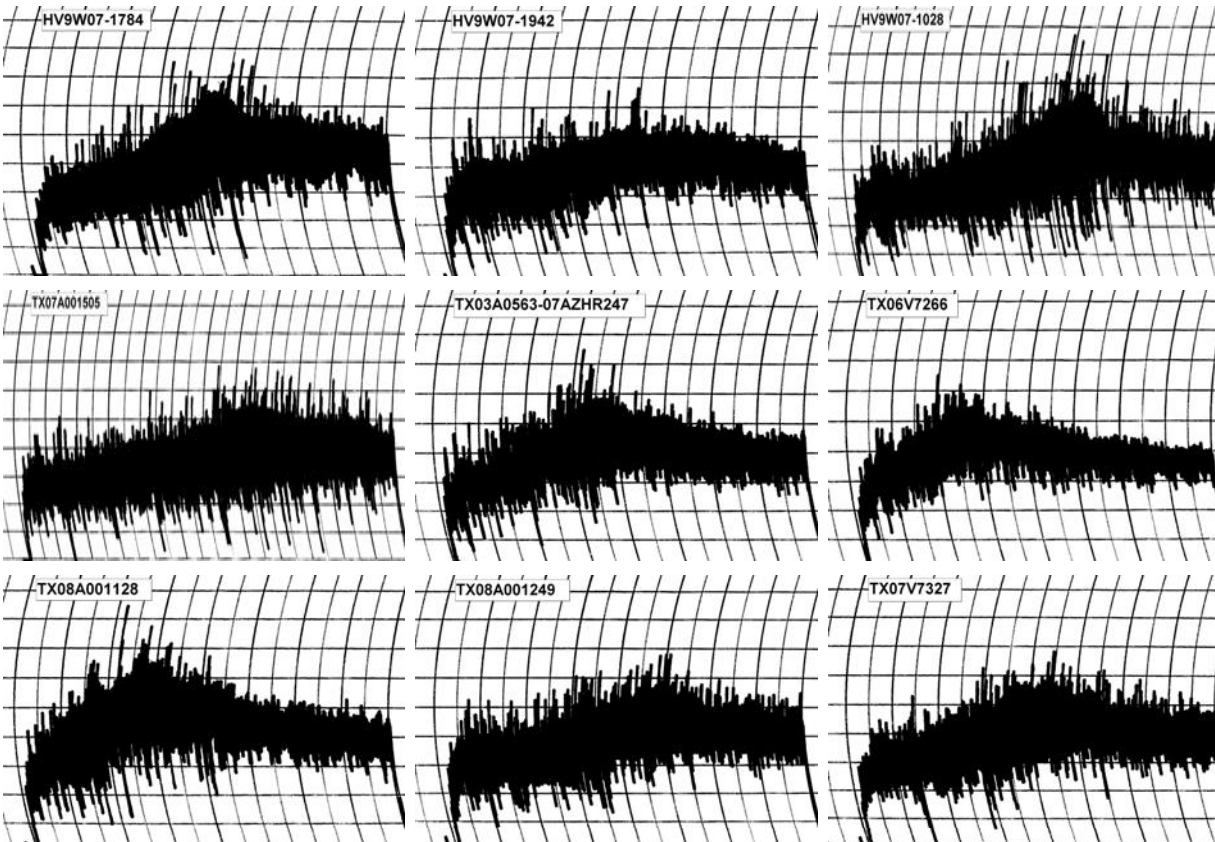
2012 SRPN Intraregional Production Zone South Central Plains



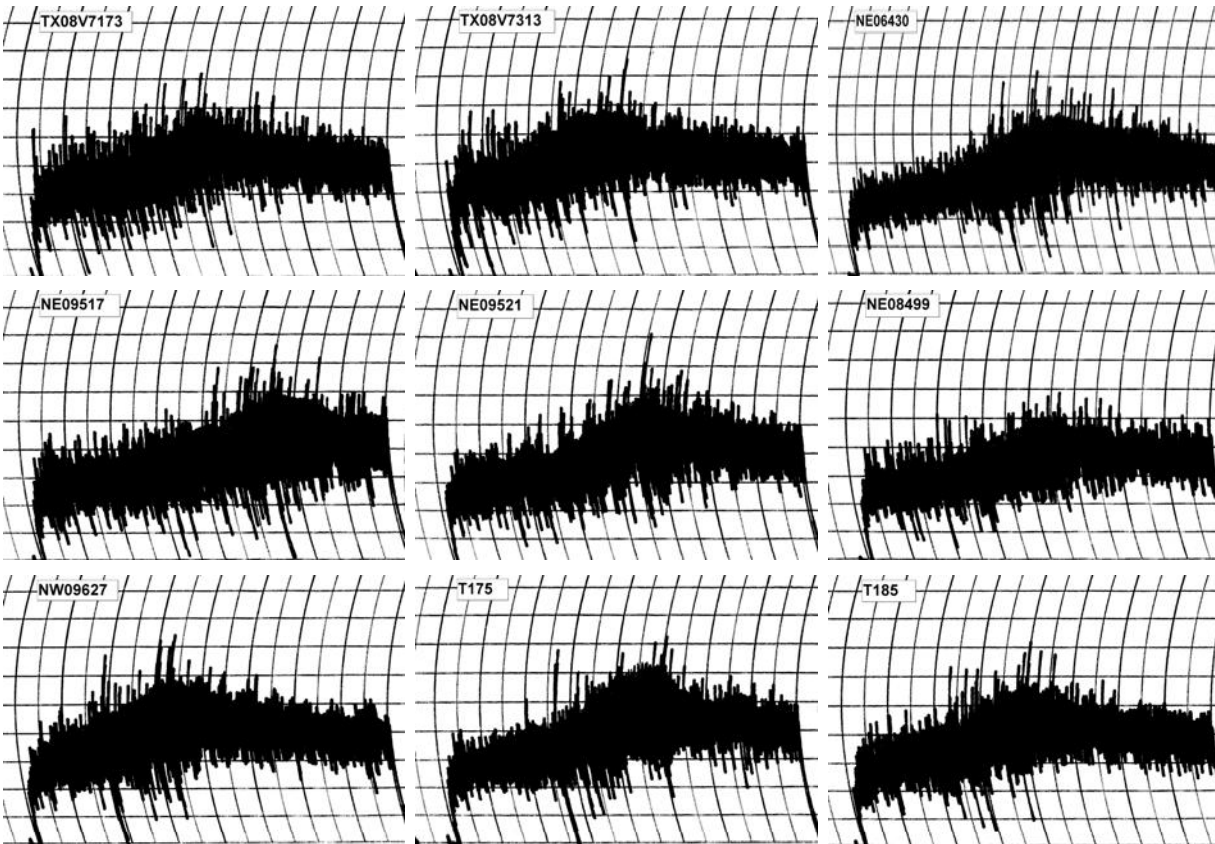
2012 SRPN Intraregional Production Zone South Central Plains



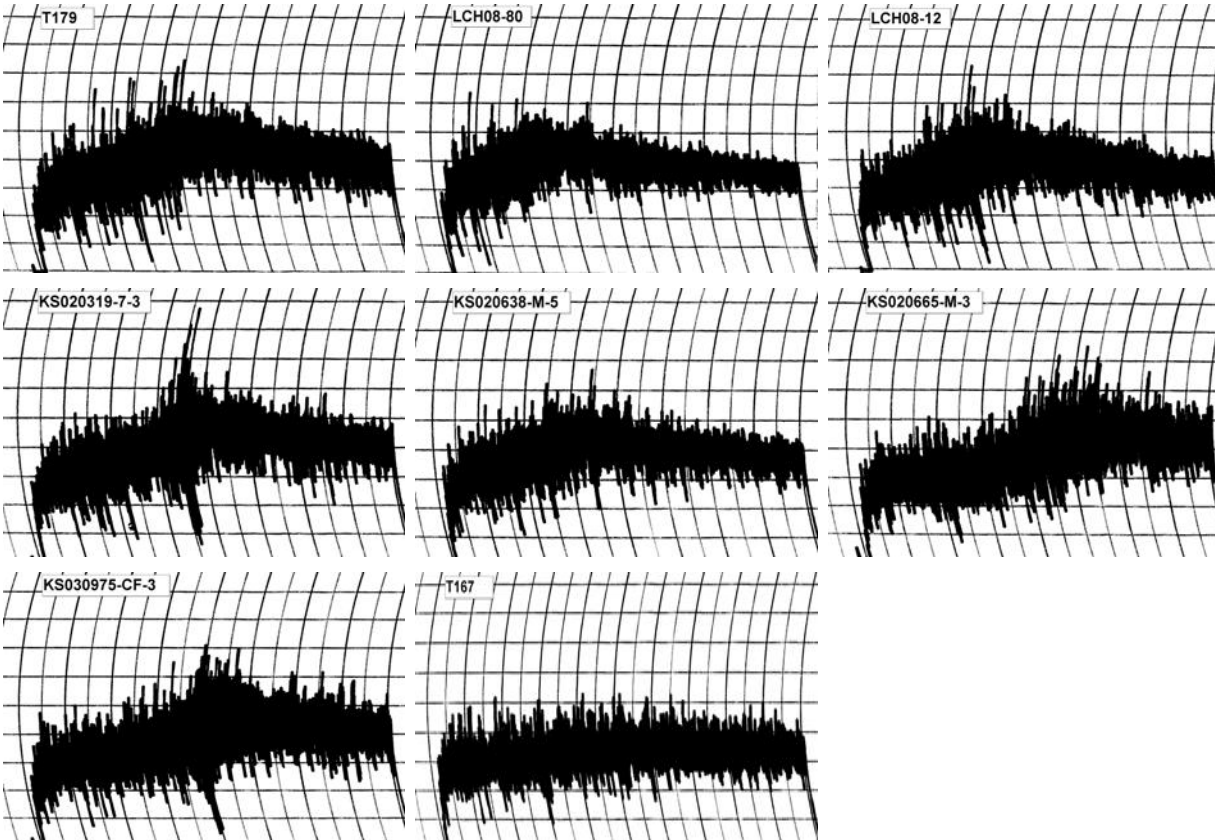
2012 SRPN Intraregional Production Zone South Central Plains



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2012 SRPN Intraregional Production Zone

Southern Central Plains

	RVA							
	Stirring Number	Peak Viscosity	Trough Viscosity	Breakdown	Final Viscosity	Set back	Peak Time	Pasting Temp
Line	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(min)	(Deg. C)
Kharkof	149.58	228.67	165.67	63.00	274.17	108.50	6.40	
Scout 66	126.67	200.33	134.00	66.33	240.25	106.25	6.13	
TAM 107	119.75	262.50	181.92	80.58	304.25	122.33	6.40	
Fuller	142.58	231.75	175.08	56.67	299.00	123.92	6.40	
KS07HW5-1-1-3	125.50	285.08	174.00	111.08	280.83	106.83	6.40	
KS07HW5-1-1-4	116.58	287.83	177.83	110.00	274.75	96.92	6.40	
KS07HW5-1-1-5	115.83	287.67	175.67	112.00	274.67	99.00	6.40	
OK07214	136.17	184.50	135.33	49.17	241.33	106.00	6.27	
OK08328	115.00	274.58	165.67	108.92	279.75	114.08	6.27	
OK08229	122.58	210.25	147.33	62.92	261.33	114.00	6.27	
OK09634	138.50	234.42	161.17	73.25	273.67	112.50	6.33	
OK08707W	124.42	243.00	150.83	92.17	255.58	104.75	6.27	
OCW00S063S-1B	126.08	179.00	126.42	52.58	240.58	114.17	6.00	
BL11001	125.92	174.50	123.92	50.58	237.00	113.08	6.00	
BL11002	120.75	235.75	155.67	80.08	269.17	113.50	6.27	
CO05W111	117.08	220.17	151.08	69.08	274.42	123.33	6.13	
CO07W245	138.50	264.92	171.83	93.08	277.50	105.67	6.40	
CO07W722-F5	140.92	218.08	159.25	58.83	283.00	123.75	6.27	
HV9W07-1784	133.17	238.08	167.42	70.67	284.42	117.00	6.33	
HV9W07-1942	137.50	208.75	153.17	55.58	271.67	118.50	6.33	
HV9W07-1028	142.17	249.25	172.08	77.17	294.58	122.50	6.33	
TX07A001505	134.25	245.92	174.75	71.17	305.00	130.25	6.27	
TX03A0563-07AZHR247	136.00	206.50	160.17	46.33	289.42	129.25	6.20	
TX06V7266	139.83	230.25	167.58	62.67	295.58	128.00	6.27	
TX08A001128	141.50	288.08	182.33	105.75	285.50	103.17	6.47	
TX08A001249	138.58	271.50	182.58	88.92	301.50	118.92	6.40	
TX07V7327	130.42	229.83	168.67	61.17	299.83	131.17	6.27	
TX08V7173	125.25	273.00	181.08	91.92	299.08	118.00	6.33	
TX08V7313	134.00	225.50	159.67	65.83	272.50	112.83	6.33	
NE06430	135.42	242.67	163.17	79.50	282.42	119.25	6.27	
NE09517	120.50	220.92	149.33	71.58	271.67	122.33	6.13	
NE09521	132.83	226.58	163.83	62.75	279.67	115.83	6.33	
NE08499	137.25	219.58	154.42	65.17	273.58	119.17	6.20	
NW09627	108.75	224.08	149.83	74.25	273.58	123.75	6.07	
T175	131.25	232.17	160.75	71.42	283.42	122.67	6.20	
T185	137.83	231.92	163.17	68.75	285.17	122.00	6.27	
T179	140.67	241.08	170.25	70.83	295.00	124.75	6.33	
LCH08-80	122.42	239.08	158.67	80.42	274.50	115.83	6.27	
LCH08-12	136.83	210.08	156.92	53.17	288.00	131.08	6.20	
KS020319-7-3	141.67	277.17	184.50	92.67	286.58	102.08	6.47	
KS020638-M-5	139.92	278.17	182.83	95.33	288.92	106.08	6.40	
KS020665-M-3	144.17	243.00	172.33	70.67	289.75	117.42	6.40	
KS030975-CF-3	143.58	220.17	164.92	55.25	290.50	125.58	6.33	
T167	144.67	267.75	193.08	74.67	314.33	121.25	6.47	

2012 SRPN Intraregional Production Zone

South Central Plains

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	13.1	62.9	5.00	5.00	172.6	7.3	4.0	940	6.3	63
Scout 66	12.5	63.3	3.50	3.50	172.9	7.2	3.0	880	5.8	61
TAM 107	11.5	61.2	4.25	4.02	169.4	7.1	3.0	905	6.2	71
Fuller	11.8	62.3	5.25	5.10	171.2	7.4	4.0	930	6.2	72
KS07HW5-1-1-3	11.9	64.4	4.50	4.44	173.9	7.1	3.0	950	6.3	73
KS07HW5-1-1-4	12.0	63.0	4.25	4.25	171.9	6.8	3.0	900	6.0	66
KS07HW5-1-1-5	11.8	63.1	4.00	3.89	172.6	8.0	4.0	1085	7.3	89
OK07214	11.7	61.4	4.38	4.23	170.6	6.7	2.5	815	5.4	59
OK08328	10.8	60.4	4.50	3.86	169.0	6.5	2.5	775	5.2	60
OK08229	11.8	61.2	3.00	2.91	170.1	6.9	3.0	785	5.3	55
OK09634	11.5	61.3	4.75	4.49	170.6	7.0	4.5	920	6.2	72
OK08707W	10.9	62.2	5.25	4.57	171.2	6.6	3.5	825	5.5	66
OCW00S063S-1B	11.1	61.1	4.25	3.78	170.1	7.0	4.0	835	5.7	66
BL11001	11.2	62.4	3.63	3.29	172.0	7.2	4.0	850	5.7	67
BL11002	11.9	61.0	4.50	4.46	169.8	6.7	4.0	875	5.9	64
CO05W111	10.9	61.3	4.13	3.60	170.3	6.9	4.5	810	5.5	64
CO07W245	10.1	60.2	4.50	3.50	169.0	6.6	4.0	790	5.3	67
CO07W722-F5	11.1	61.2	6.75	6.04	170.0	6.5	3.8	770	5.1	58
HV9W07-1784	11.5	60.3	5.25	4.96	169.0	6.8	4.5	880	5.9	68
HV9W07-1942	11.6	60.2	5.25	5.03	169.6	6.9	2.0	825	5.6	61
HV9W07-1028	12.4	63.1	7.88	7.88	171.7	8.3	5.0	1095	7.6	84
TX07A001505	11.0	61.2	10.00	8.85	169.3	6.6	3.5	835	5.6	66
TX03A0563-07AZHR247	11.5	61.4	4.50	4.24	170.8	7.0	4.0	855	5.7	65
TX06V7266	11.1	58.2	2.75	2.45	167.2	6.8	3.0	755	5.1	56
TX08A001128	11.6	62.2	3.25	3.09	171.4	7.2	4.0	915	6.2	71
TX08A001249	11.1	61.4	5.75	5.14	169.5	7.7	5.0	950	6.6	80
TX07V7327	10.6	63.2	4.75	3.92	172.7	7.1	4.5	800	5.3	65
TX08V7173	11.2	62.5	4.75	4.32	172.1	7.1	4.0	900	6.1	72
TX08V7313	10.6	62.3	4.75	3.94	171.4	7.1	4.0	880	5.9	76
NE06430	10.9	61.3	6.88	5.98	170.2	7.1	4.0	825	5.6	66
NE09517	11.0	61.1	8.00	7.04	175.4	6.9	4.0	845	5.8	68
NE09521	11.7	62.3	5.75	5.56	171.6	7.0	3.5	890	5.9	68
NE08499	11.4	61.1	5.25	4.89	169.8	7.0	5.0	830	5.6	63
NW09627	10.7	61.9	5.00	4.20	171.1	7.1	4.0	850	5.7	71
T175	11.4	59.2	5.00	4.64	168.2	7.6	5.0	940	6.5	76
T185	11.4	61.1	5.13	4.78	169.8	7.5	5.0	910	6.2	72
T179	11.6	59.2	4.13	3.93	168.4	7.3	5.0	950	6.5	75
LCH08-80	11.1	58.6	3.13	2.80	167.4	7.0	1.5	810	5.5	62
LCH08-12	11.1	60.1	3.25	2.89	169.1	6.9	3.5	800	5.3	62
KS020319-7-3	11.1	59.3	4.50	4.02	168.7	7.1	6.0	910	6.2	75
KS020638-M-5	11.0	60.5	3.25	2.86	169.0	7.0	4.0	860	5.7	70
KS020665-M-3	11.7	59.4	6.50	6.26	167.5	7.1	4.0	920	6.3	71
KS030975-CF-3	11.4	60.6	5.50	5.13	168.6	7.3	5.0	900	6.1	71

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
T167	11.0	64.5	6.25	5.50	172.1	7.5	4.5	880	5.9	72

2012 SRPN Intraregional Production Zone South Central Plains

12-SSC1001



12-SSC1002



12-SSC1003



12-SSC1004



12-SSC1005



12-SSC1006



12-SSC1007



12-SSC1008



12-SSC1009



2012 SRPN Intraregional Production Zone South Central Plains

12-SSC1010



12-SSC1011



12-SSC1012



12-SSC1013



12-SSC1014



12-SSC1015



12-SSC1016



12-SSC1017



12-SSC1018



2012 SRPN Intraregional Production Zone South Central Plains

12-SSC1019



12-SSC1020



12-SSC1021



12-SSC1022



12-SSC1023



12-SSC1024



12-SSC1025



12-SSC1026sa



12-SSC1027



2012 SRPN Intraregional Production Zone South Central Plains

12-SSC1028



12-SSC1029



12-SSC1030



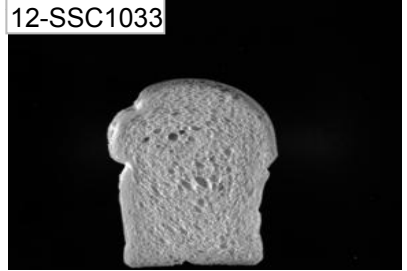
12-SSC1031



12-SSC1032



12-SSC1033



12-SSC1034



12-SSC1035



12-SSC1036



2012 SRPN Intraregional Production Zone South Central Plains

12-SSC1037



12-SSC1038



12-SSC1039



12-SSC1040



12-SSC1041



12-SSC1042



12-SSC1043



12-SSC1044





Hard Winter Wheat Quality Report 2012 SRPN-SHP

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

ID	Milling Score	Rating	%	Baking Score	Rating	%	1RS	Trait Deficiencies
Kharkof	40.1	Very Poor	64.6	62.9	Good	75.0		11,12,13,17,
Scout 66	60.7	Very Good	97.9	45.0	Very Poor	53.7		16,
TAM 107	50.9	Poor	82.0	55.7	Average	66.4	1AL	3,5,
Fuller	53.0	Average	85.5	55.6	Poor	66.2		
KS07HW5-1-1-3	58.9	Very Good	95.0	80.5	Very Good	95.9		16,
KS07HW5-1-1-4	57.1	Good	92.0	59.0	Average	70.3		3,16,
KS07HW5-1-1-5	62.0	Very Good	100.0	76.3	Very Good	91.0		16,
Gallagher	53.1	Average	85.7	54.4	Average	64.9	h1BL	16,21,
OK08328	52.2	Poor	84.1	49.0	Poor	58.4	h1BL	16,21,
OK08229	52.8	Poor	85.1	36.2	Very Poor	43.2		3,5,14,15,16,19,20,21,
OK09634	53.6	Average	86.4	75.0	Very Good	89.4		16,
OK08707W	53.5	Average	86.1	72.8	Very Good	86.8		
OCW00S063S-1B	57.7	Good	93.0	42.1	Very Poor	50.2	h1AL	9,16,18,
BL11001	61.9	Very Good	99.8	55.9	Average	66.7		3,11,16,
BL11002	53.6	Average	86.4	55.8	Average	66.5		16,
CO05W111	56.1	Good	90.4	67.2	Good	80.2		16,
Antero	57.6	Good	92.8	64.2	Good	76.6		5,
CO07W722-F5	53.2	Average	85.8	44.5	Very Poor	53.0		6,10,16,
HV9W07-1784	54.2	Average	87.4	44.7	Very Poor	53.3		14,15,
HV9W07-1942	55.8	Good	89.9	42.0	Very Poor	50.1	1BL	9,12,13,16,17,21,
HV9W07-1028	50.3	Poor	81.0	70.9	Very Good	84.6		14,15,
TX07A001505	57.9	Very Good	93.2	48.1	Poor	57.3		14,15,
TX03A0563-07AZHR247	58.0	Very Good	93.5	51.7	Poor	61.6		16,
TX06V7266	54.8	Good	88.3	34.2	Very Poor	40.7		14,15,16,19,20,21,
TX08A001128	54.7	Average	88.1	57.8	Average	69.0		15,16,
TX08A001249	44.7	Very Poor	72.0	83.9	Very Good	100.0	1AL	8,
TX07V7327	48.5	Very Poor	78.2	59.3	Average	70.8		
TX08V7173	59.0	Very Good	95.1	68.0	Very Good	81.1		
TX08V7313	54.2	Average	87.4	63.1	Good	75.2		10,16,
NE06430	55.6	Good	89.6	63.3	Average	75.5		15,

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 2012 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
NE09517	60.3	Very Good	97.2	48.2	Poor	57.5		15,
NE09521	47.8	Very Poor	77.0	55.8	Average	66.6		5,16,
NE08499	52.6	Poor	84.7	63.9	Good	76.2		16,
NW09627	51.8	Poor	83.4	65.4	Good	78.0		
T175	56.1	Good	90.4	63.6	Good	75.9		
T185	51.9	Poor	83.6	80.8	Very Good	96.3		2,16,
T179	46.6	Very Poor	75.1	47.7	Poor	56.8		9,16,21,
LCH08-80	49.3	Poor	79.4	40.2	Very Poor	47.9		15,16,21,
LCH08-12	31.7	Very Poor	51.1	41.7	Very Poor	49.7		1,4,6,8,16,
1863	51.0	Poor	82.2	50.0	Poor	59.6		16,21,
KS020638-M-5	57.1	Good	92.0	44.9	Poor	53.5		16,21,
KS020665-M-3	49.0	Very Poor	79.1	66.9	Good	79.7		14,15,
KS030975-CF-3	44.6	Very Poor	71.9	54.9	Poor	65.5		21,
T167	43.9	Very Poor	70.7	65.9	Good	78.6	1AL	1,3,5,8,

2012 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	58.2	8.9	0.8	22.9	6.5	2.39	0.28	48 25	MIXED	32--22--14--32--03	
Scout 66	58.3	12.6	0.4	27.1	6.7	2.55	0.27	70 14	HARD	01--04--17--78--01	
TAM 107	56.3	13.5	0.3	24.9	7.6	2.42	0.30	74 14	HARD	00--03--11--86--01	
Fuller	56.2	13.3	0.4	23.6	5.9	2.45	0.24	67 15	HARD	00--07--19--74--01	
KS07HW5-1-1-3	59.5	12.7	0.4	25.5	6.5	2.43	0.24	75 14	HARD	00--03--07--90--01	
KS07HW5-1-1-4	59.7	11.5	0.4	25.4	7.6	2.42	0.25	74 14	HARD	00--03--12--85--01	
KS07HW5-1-1-5	60.6	13.5	0.4	25.9	5.8	2.49	0.22	75 13	HARD	00--00--08--92--01	
OK07214	57.8	12.6	0.4	22.4	5.7	2.36	0.22	82 16	HARD	00--01--06--93--01	
OK08328	56.8	11.9	0.4	23.7	6.1	2.39	0.24	66 14	HARD	03--06--18--73--01	
OK08229	56.5	12.6	0.4	25.3	7.8	2.46	0.30	72 15	HARD	01--04--13--82--01	
OK09634	57.0	11.2	0.4	22.3	5.4	2.36	0.24	72 15	HARD	01--02--17--80--01	
OK08707W	57.6	11.0	0.4	23.4	6.8	2.39	0.27	72 16	HARD	01--05--13--81--01	
OCW00S063S-1B	57.3	12.2	0.4	24.2	6.3	2.40	0.28	68 13	HARD	00--05--19--76--01	
BL11001	58.1	10.9	0.4	26.5	7.3	2.50	0.26	67 14	HARD	02--06--20--72--01	
BL11002	58.1	10.0	0.4	23.6	6.4	2.45	0.26	74 16	HARD	01--03--13--83--01	
CO05W111	59.3	10.5	0.4	22.4	5.8	2.35	0.23	74 15	HARD	01--02--13--84--01	
CO07W245	58.8	10.3	0.5	24.8	6.6	2.46	0.29	66 14	HARD	00--07--24--69--01	
CO07W722-F5	59.1	10.8	0.4	24.2	5.7	2.46	0.26	89 15	HARD	00--00--02--98--01	
HV9W07-1784	56.2	11.4	0.4	21.5	6.0	2.33	0.23	69 15	HARD	02--04--19--75--01	
HV9W07-1942	58.2	11.4	0.4	23.4	6.2	2.41	0.24	80 14	HARD	00--01--06--93--01	
HV9W07-1028	58.0	9.8	0.5	21.6	6.3	2.34	0.23	76 16	HARD	01--03--11--85--01	
TX07A001505	59.6	10.0	0.5	23.0	5.7	2.37	0.20	77 16	HARD	00--02--09--89--01	
TX03A0563-07AZHR247	59.1	10.0	0.4	21.0	5.3	2.35	0.23	75 14	HARD	00--04--08--88--01	
TX06V7266	58.7	10.9	0.4	23.6	5.7	2.46	0.23	74 14	HARD	01--02--10--87--01	
TX08A001128	61.5	10.3	0.5	23.3	6.4	2.38	0.24	72 15	HARD	00--04--12--84--01	
TX08A001249	58.6	9.2	0.6	21.1	5.9	2.31	0.25	76 16	HARD	01--04--07--88--01	
TX07V7327	56.2	10.0	0.4	23.4	6.1	2.35	0.26	73 15	HARD	01--03--13--83--01	
TX08V7173	59.3	9.9	0.5	20.6	5.5	2.31	0.21	76 15	HARD	00--02--11--87--01	
TX08V7313	60.5	10.9	0.4	24.5	6.5	2.40	0.26	71 15	HARD	02--05--11--82--01	
NE06430	58.2	10.3	0.5	22.7	6.2	2.38	0.25	68 16	HARD	01--06--21--72--01	
NE09517	59.6	9.3	0.6	25.4	6.4	2.51	0.27	68 15	HARD	01--04--21--74--01	
NE09521	55.8	8.5	0.7	22.6	6.5	2.41	0.29	71 17	HARD	02--06--13--79--01	
NE08499	58.0	8.8	0.7	24.9	6.4	2.50	0.28	73 15	HARD	01--04--09--86--01	
NW09627	56.0	8.8	0.7	22.3	6.2	2.37	0.25	66 16	HARD	02--10--21--67--01	
T175	57.5	8.5	0.7	21.2	5.7	2.33	0.22	74 16	HARD	01--03--11--85--01	
T185	57.1	8.4	0.7	19.6	5.2	2.30	0.22	76 16	HARD	01--02--11--86--01	
T179	56.2	8.1	0.9	20.9	5.1	2.35	0.23	73 16	HARD	02--02--14--82--01	
LCH08-80	57.3	8.2	0.8	20.6	5.4	2.33	0.22	75 17	HARD	01--04--09--86--01	
LCH08-12	54.9	8.4	0.7	20.8	5.1	2.22	0.23	35 18	SOFT	48--24--19--09--04	
KS020319-7-3	58.1	8.3	0.7	22.9	5.8	2.38	0.23	68 16	HARD	01--08--19--72--01	
KS020638-M-5	59.2	8.6	0.6	22.7	6.1	2.42	0.25	78 16	HARD	00--04--07--89--01	
KS020665-M-3	56.1	8.5	0.7	22.4	6.3	2.39	0.24	67 16	HARD	02--05--20--73--01	
KS030975-CF-3	56.0	8.6	0.7	22.1	6.8	2.38	0.26	72 16	HARD	01--05--11--83--01	
T167	55.0	9.2	0.6	24.2	7.4	2.40	0.29	76 15	HARD	00--02--09--89--01	

2012 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	15.4	65.6	0.41	13.2	0.615	82.37	-1.32	23.43	-10.75	1.21	0.98
Scout 66	17.3	71.0	0.43	15.8	0.622	79.29	-0.04	22.46	-13.63	1.09	1.60
TAM 107	16.1	67.5	0.43	14.5	0.630	80.35	-0.64	24.37	-16.63	1.70	3.30
Fuller	16.9	68.8	0.46	15.5	0.747	80.33	-0.64	23.93	-14.90	1.37	1.73
KS07HW5-1-1-3	17.1	69.4	0.45	16.1	0.492	80.50	-0.95	23.21	-13.76	0.87	3.74
KS07HW5-1-1-4	17.3	69.1	0.44	16.1	0.465	81.08	-0.95	23.71	-13.60	0.77	3.53
KS07HW5-1-1-5	16.8	68.9	0.43	15.5	0.483	80.80	-1.07	24.73	-12.64	0.86	2.51
OK07214	16.5	67.1	0.47	15.5	0.148	79.91	-0.71	26.34	-11.38	0.54	4.67
OK08328	16.4	67.8	0.43	15.3	0.542	81.53	-0.09	19.55	-17.92	0.62	8.06
OK08229	17.4	69.0	0.43	15.7	0.612	77.54	0.10	24.94	-15.75	-0.04	0.93
OK09634	16.7	68.1	0.43	15.4	0.137	80.14	-0.86	23.26	-11.14	0.66	3.13
OK08707W	16.3	68.9	0.42	15.0	0.618	81.20	-1.05	23.71	-13.16	1.21	2.55
OCW00S063S-1B	16.7	71.2	0.47	15.2	0.601	80.16	-1.12	25.04	-15.42	1.14	2.67
BL11001	15.6	72.5	0.40	14.5	0.600	81.25	-0.20	20.02	-12.00	0.81	3.29
BL11002	16.3	67.2	0.39	15.1	0.223	82.35	-1.03	23.11	-10.20	0.52	3.54
CO05W111	17.6	67.8	0.40	15.5	0.680	81.36	-0.59	23.99	-11.93	0.65	3.63
CO07W245	17.2	69.6	0.40	15.0	0.718	81.20	-0.72	22.47	-14.68	0.78	3.42
CO07W722-F5	17.4	64.7	0.45	15.3	0.199	81.10	-0.64	22.64	-12.73	0.78	4.65
HV9W07-1784	17.3	69.9	0.43	16.1	0.506	79.40	-0.11	24.81	-13.61	0.61	0.60
HV9W07-1942	16.4	69.1	0.51	15.3	0.499	79.82	-0.39	26.57	-15.49	1.26	2.90
HV9W07-1028	18.6	66.7	0.46	16.9	0.501	79.08	-0.29	24.50	-14.09	0.73	2.52
TX07A001505	17.3	67.7	0.38	16.1	0.650	81.01	-0.48	22.57	-15.37	0.74	6.05
TX03A0563-07AZHR247	17.2	69.1	0.42	16.0	0.520	80.56	-0.28	21.56	-14.82	1.13	2.94
TX06V7266	17.2	67.0	0.44	15.5	0.652	79.51	-0.16	23.01	-14.38	1.04	1.45
TX08A001128	18.0	66.7	0.44	16.6	0.575	79.91	-0.34	22.20	-13.98	0.83	2.67
TX08A001249	17.1	62.4	0.42	15.7	0.605	80.47	-0.40	23.15	-15.04	0.79	2.75
TX07V7327	16.9	65.5	0.42	15.2	0.698	80.03	-0.26	23.85	-12.29	0.81	1.08
TX08V7173	17.2	69.5	0.39	15.4	0.639	79.83	-0.45	23.23	-13.72	1.04	3.63
TX08V7313	16.7	67.7	0.45	14.6	0.698	80.95	-0.41	22.34	-14.05	0.90	5.34
NE06430	17.2	69.5	0.40	15.4	0.726	81.54	-0.56	20.28	-14.69	1.07	4.28
NE09517	16.1	71.1	0.45	14.9	0.731	80.97	-0.98	23.14	-12.77	1.16	1.24
NE09521	17.3	66.7	0.42	16.2	0.274	81.11	-0.04	21.90	-12.71	0.53	5.07
NE08499	17.6	67.0	0.45	16.1	0.812	79.07	-0.06	22.04	-13.90	1.11	2.16
NW09627	15.9	68.6	0.39	14.9	0.270	82.52	-1.35	23.82	-10.32	0.70	3.95
T175	17.2	69.3	0.40	15.9	0.481	80.68	-1.63	27.65	-12.05	0.85	1.57
T185	17.9	67.1	0.41	16.6	0.505	80.66	-1.57	27.51	-11.92	1.06	1.30
T179	17.5	65.3	0.47	16.3	0.743	79.03	-0.91	23.92	-13.32	1.08	-0.45
LCH08-80	17.7	66.4	0.45	15.8	0.580	79.57	-0.69	24.61	-11.84	0.99	0.23
LCH08-12	16.8	60.1	0.38	15.0	0.553	82.64	-1.28	23.27	-11.19	1.01	0.94
KS020319-7-3	16.7	66.6	0.42	14.9	0.589	81.47	-1.35	23.72	-14.19	1.21	1.96
KS020638-M-5	16.9	68.4	0.39	15.1	0.697	80.90	-0.60	22.45	-13.65	0.91	2.34

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
	(%)	(%)	(%)	(%)							
KS020665-M-3	17.3	67.0	0.42	16.0	0.533	79.83	-0.45	25.25	-13.43	0.11	0.50
KS030975-CF-3	17.1	64.4	0.42	15.6	0.829	79.45	-0.75	24.34	-15.48	1.07	-0.48
T167	16.4	64.1	0.43	14.6	0.520	80.31	-0.82	24.41	-15.28	1.20	2.55

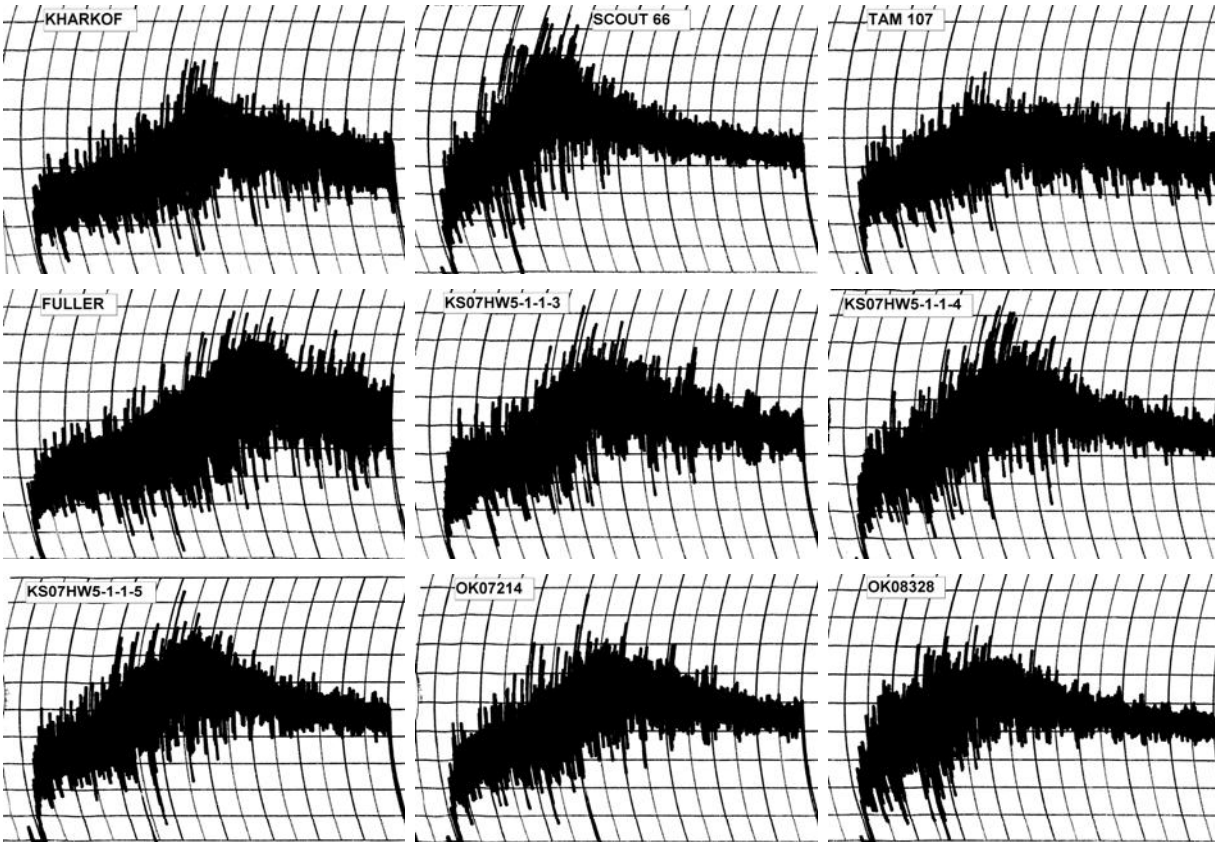
2012 SRPN Intraregional Production Zone

Southern High Plains

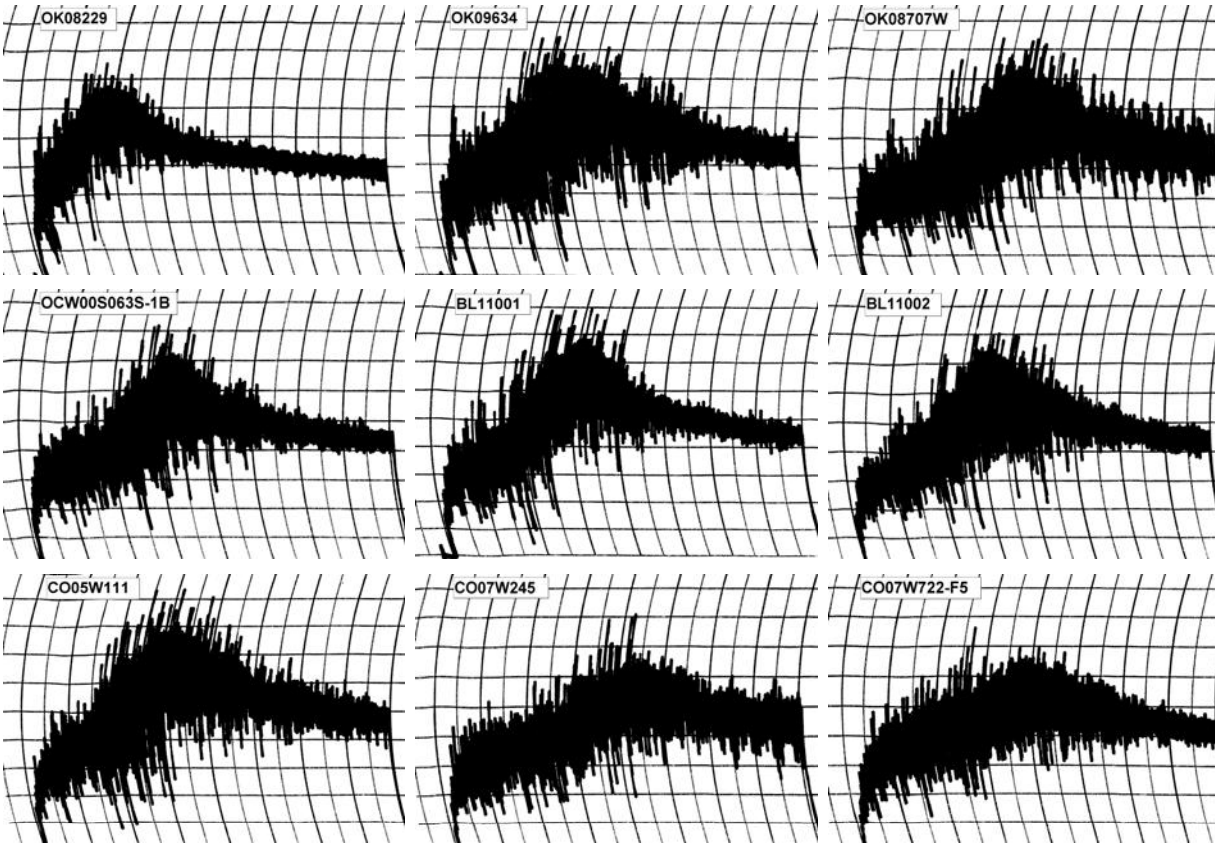
	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
Kharkof	13.2	63.5	3.88	3.88	4
Scout 66	15.8	69.3	2.50	2.50	1
TAM 107	14.5	69.1	3.00	3.00	3
Fuller	15.5	69.7	5.00	5.00	5
KS07HW5-1-1-3	16.1	71.2	3.50	3.50	2
KS07HW5-1-1-4	16.1	71.8	3.50	3.50	2
KS07HW5-1-1-5	15.5	70.8	3.63	3.63	2
OK07214	15.5	70.8	3.63	3.63	1
OK08328	15.3	68.4	3.25	3.25	1
OK08229	15.7	69.1	1.88	1.88	0
OK09634	15.4	68.7	3.00	3.00	1
OK08707W	15.0	69.0	3.75	3.75	3
OCW00S063S-1B	15.2	68.3	3.25	3.25	0
BL11001	14.5	69.5	3.00	3.00	0
BL11002	15.1	69.6	3.00	3.00	0
CO05W111	15.5	70.3	3.13	3.13	2
CO07W245	15.0	66.9	4.38	4.38	3
CO07W722-F5	15.3	68.4	3.88	3.88	0
HV9W07-1784	16.1	69.7	5.50	5.50	5
HV9W07-1942	15.3	66.5	3.88	3.88	1
HV9W07-1028	16.9	71.1	5.88	5.88	5
TX07A001505	16.1	70.8	8.00	8.00	5
TX03A0563-07AZHR247	16.0	69.7	2.75	2.75	2
TX06V7266	15.5	69.8	2.00	2.00	0
TX08A001128	16.6	70.7	2.13	2.13	0
TX08A001249	15.7	71.5	5.13	5.13	5
TX07V7327	15.2	72.4	4.38	4.38	5
TX08V7173	15.4	70.5	3.63	3.63	3
TX08V7313	14.6	69.3	3.63	3.63	2
NE06430	15.4	68.6	6.13	6.13	5
NE09517	14.9	67.8	5.50	5.50	4
NE09521	16.2	70.5	4.38	4.38	1
NE08499	16.1	70.8	3.50	3.50	2
NW09627	14.9	69.3	3.50	3.50	3
T175	15.9	69.4	4.00	4.00	3
T185	16.6	69.5	3.50	3.50	2
T179	16.3	69.1	2.63	2.63	0
LCH08-80	15.8	67.3	2.00	2.00	0
LCH08-12	15.0	68.0	2.50	2.50	2
KS020319-7-3	14.9	66.8	3.00	3.00	0
KS020638-M-5	15.1	68.1	3.38	3.38	1

	Flour Protein	Mixograph			
		Absorption	As-Is	Corrected	Tolerance
Line	(%)	(%)	(min)	(min)	
KS020665-M-3	16.0	67.5	6.00	6.00	4
KS030975-CF-3	15.6	67.9	4.50	4.50	4
T167	14.6	67.3	3.38	3.38	3

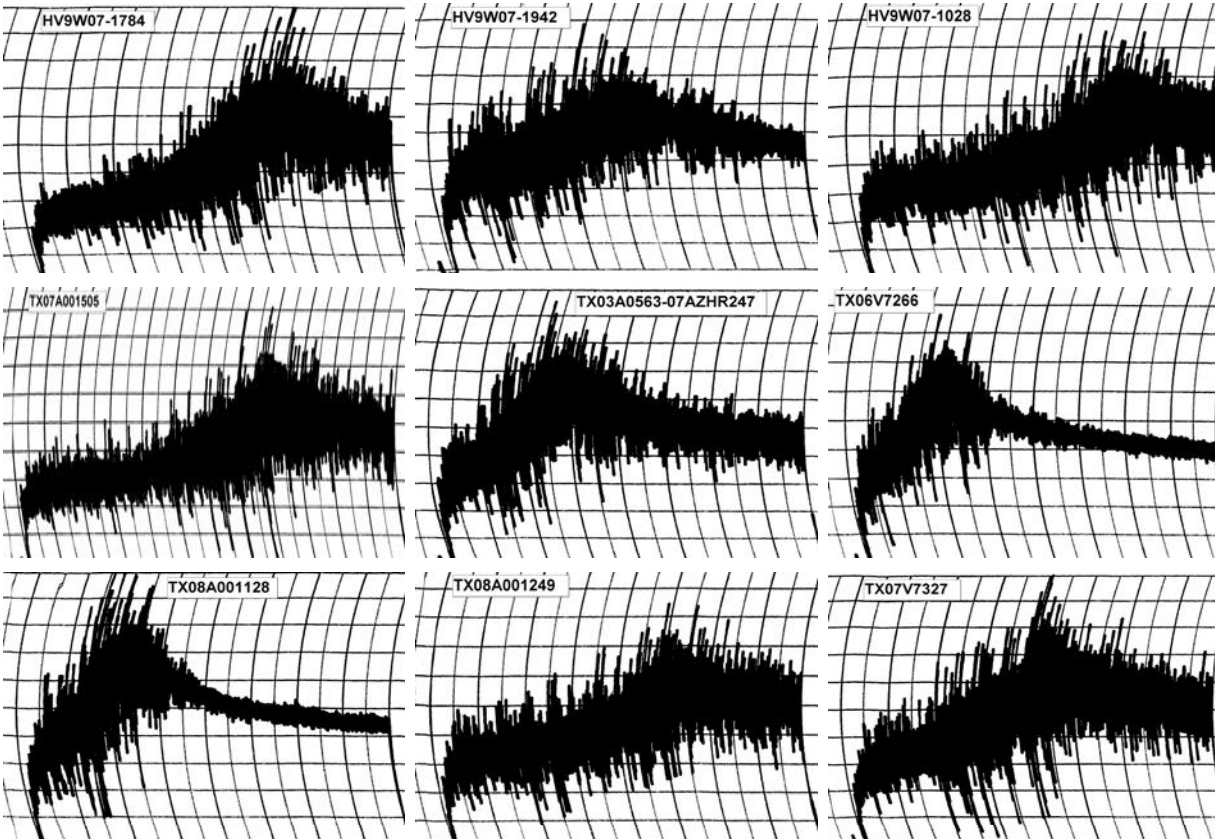
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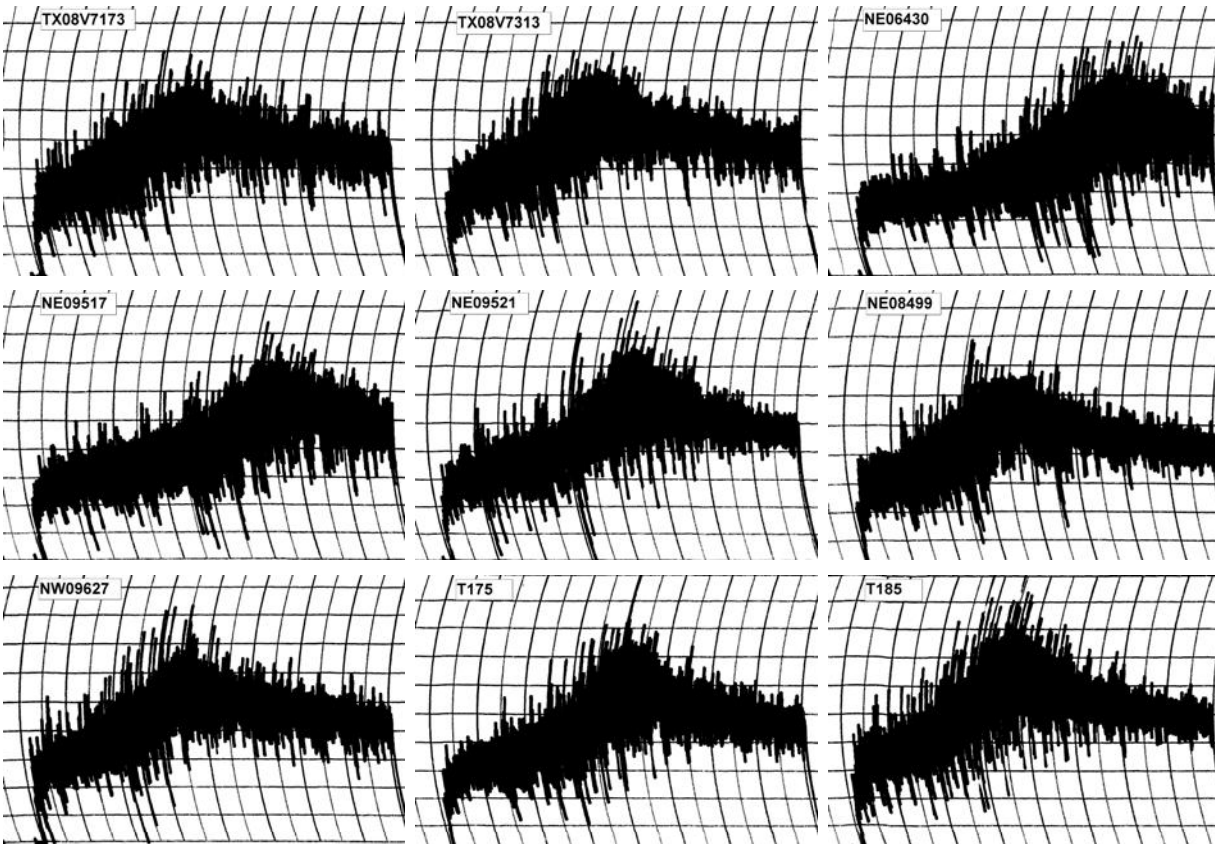
2012 SRPN Intraregional Production Zone Southern High Plains



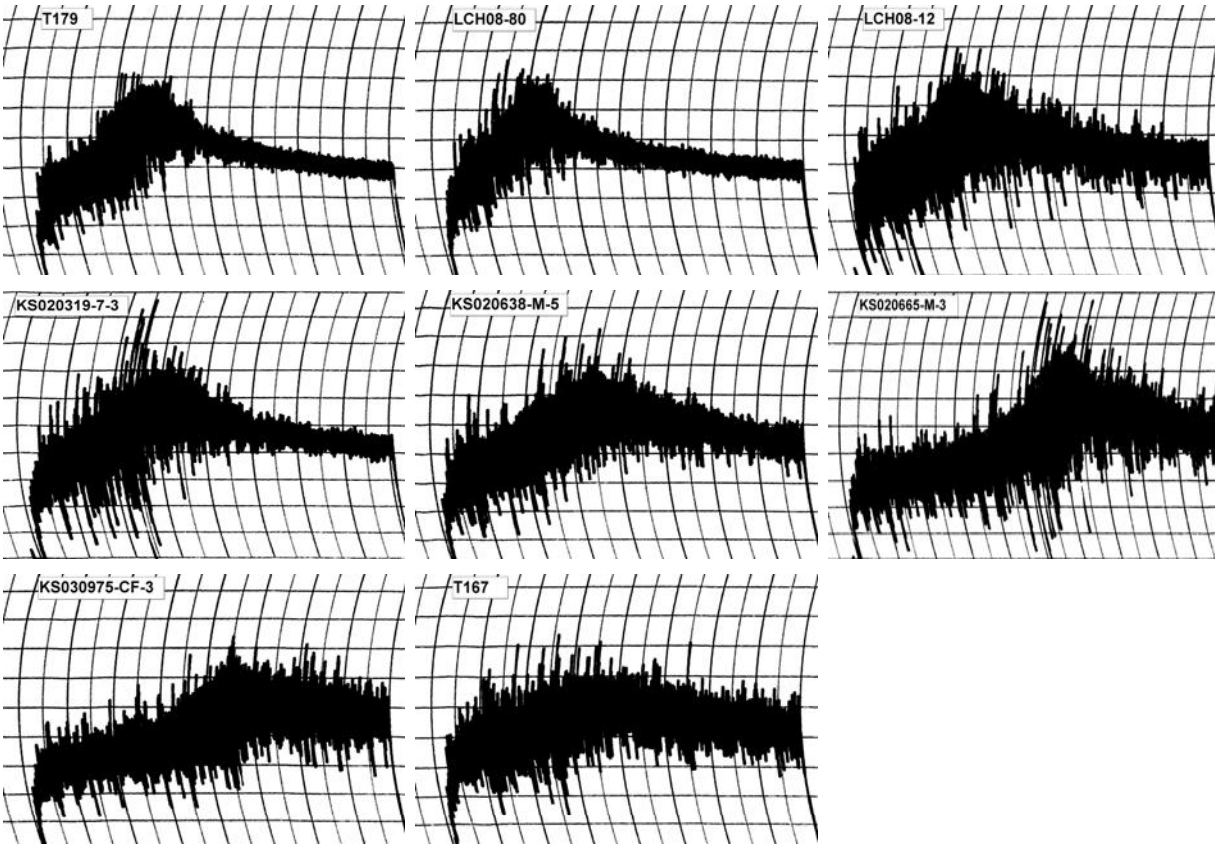
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2012 SRPN Intraregional Production Zone

Southern High Plains

	RVA							
	Stirring Number	Peak Viscosity	Trough Viscosity	Breakdown	Final Viscosity	Set back	Peak Time	Pasting Temp
Line	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(RVU)	(min)	(Deg. C)
Kharkof	150.08	231.50	175.58	55.92	289.33	113.75	6.47	
Scout 66	151.17	193.00	159.25	33.75	272.08	112.83	6.47	
TAM 107	146.58	265.67	210.42	55.25	322.75	112.33	6.73	
Fuller	156.83	223.75	178.92	44.83	292.25	113.33	6.53	
KS07HW5-1-1-3	128.00	281.33	182.75	98.58	278.58	95.83	6.53	
KS07HW5-1-1-4	140.67	281.58	179.00	102.58	274.92	95.92	6.40	
KS07HW5-1-1-5	142.50	282.08	185.75	96.33	281.75	96.00	6.47	
OK07214	153.00	195.25	160.17	35.08	271.67	111.50	6.53	
OK08328	130.17	260.92	172.00	88.92	281.58	109.58	6.47	
OK08229	141.42	214.08	162.42	51.67	277.08	114.67	6.47	
OK09634	155.50	229.33	172.58	56.75	282.00	109.42	6.53	
OK08707W	142.83	265.83	183.50	82.33	291.92	108.42	6.47	
OCW00S063S-1B	141.17	182.00	149.25	32.75	272.17	122.92	6.27	
BL11001	140.00	179.50	149.67	29.83	271.50	121.83	6.33	
BL11002	128.33	245.92	176.17	69.75	286.92	110.75	6.47	
CO05W111	144.75	220.50	171.67	48.83	288.83	117.17	6.47	
CO07W245	150.75	259.92	192.33	67.58	291.67	99.33	6.67	
CO07W722-F5	162.17	174.50	150.75	23.75	255.67	104.92	6.53	
HV9W07-1784	158.92	224.00	181.25	42.75	285.08	103.83	6.67	
HV9W07-1942	157.42	209.75	165.17	44.58	275.08	109.92	6.47	
HV9W07-1028	146.92	237.17	178.67	58.50	283.58	104.92	6.60	
TX07A001505	142.58	223.67	178.50	45.17	289.42	110.92	6.53	
TX03A0563-07AZHR247	150.92	194.50	165.33	29.17	281.83	116.50	6.47	
TX06V7266	145.00	206.58	167.25	39.33	285.92	118.67	6.47	
TX08A001128	145.33	270.67	188.33	82.33	287.58	99.25	6.53	
TX08A001249	172.75	284.17	211.17	73.00	320.17	109.00	6.67	
TX07V7327	153.08	229.17	183.83	45.33	305.92	122.08	6.53	
TX08V7173	150.17	271.58	195.75	75.83	304.92	109.17	6.60	
TX08V7313	141.08	229.42	184.58	44.83	299.58	115.00	6.53	
NE06430	138.83	223.50	168.83	54.67	281.67	112.83	6.40	
NE09517	131.42	211.92	162.42	49.50	284.33	121.92	6.33	
NE09521	158.83	220.92	173.00	47.92	284.58	111.58	6.53	
NE08499	153.17	198.33	158.50	39.83	266.67	108.17	6.47	
NW09627	145.92	225.42	163.50	61.92	291.50	128.00	6.27	
T175	146.75	218.83	168.00	50.83	283.33	115.33	6.47	
T185	150.50	218.25	172.50	45.75	282.50	110.00	6.53	
T179	157.92	225.75	179.08	46.67	295.00	115.92	6.53	
LCH08-80	143.75	232.50	173.58	58.92	288.83	115.25	6.47	
LCH08-12	145.08	219.25	170.25	49.00	294.25	124.00	6.40	
KS020319-7-3	160.50	272.08	197.75	74.33	296.33	98.58	6.60	
KS020638-M-5	154.42	279.75	199.33	80.42	302.58	103.25	6.60	
KS020665-M-3	151.17	242.08	180.75	61.33	294.83	114.08	6.53	
KS030975-CF-3	159.08	217.00	176.67	40.33	296.42	119.75	6.53	
T167	171.08	274.00	213.58	60.42	329.33	115.75	6.73	

2012 SRPN Intraregional Production Zone

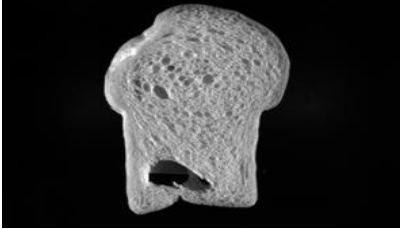
Southern High Plains

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
Kharkof	13.2	62.2	5.50	5.50	171.9	7.5	4.0	990	6.7	67
Scout 66	15.8	66.9	3.13	3.13	175.9	7.9	3.5	955	6.3	51
TAM 107	14.5	70.3	3.88	3.88	179.4	8.1	3.5	1010	6.7	62
Fuller	15.5	68.8	6.25	6.25	176.9	7.9	4.5	1025	6.8	58
KS07HW5-1-1-3	16.1	71.8	4.38	4.38	180.5	8.2	4.0	1155	7.7	65
KS07HW5-1-1-4	16.1	68.9	4.00	4.00	177.6	7.6	2.5	1075	7.1	59
KS07HW5-1-1-5	15.5	68.9	3.63	3.63	177.8	7.2	5.0	1050	6.9	60
OK07214	15.5	68.9	4.00	4.00	178.6	7.2	2.0	905	5.8	48
OK08328	15.3	67.6	3.25	3.25	177.1	7.4	2.0	895	5.8	48
OK08229	15.7	67.9	2.25	2.25	177.7	6.8	2.0	770	4.9	37
OK09634	15.4	69.2	4.25	4.25	178.5	7.7	5.0	1030	6.7	59
OK08707W	15.0	69.1	4.50	4.50	177.6	7.6	4.0	1010	6.7	59
OCW00S063S-1B	15.2	67.0	3.88	3.88	176.6	6.5	3.5	865	5.6	46
BL11001	14.5	68.1	3.75	3.75	177.2	7.6	3.0	920	6.0	54
BL11002	15.1	69.2	3.50	3.50	178.8	6.9	3.0	920	5.9	51
CO05W111	15.5	70.1	4.25	4.25	179.7	7.5	4.0	935	6.0	51
CO07W245	15.0	67.2	4.50	4.50	176.3	7.3	4.0	925	6.0	52
CO07W722-F5	15.3	67.0	4.25	4.25	176.2	7.4	3.5	850	5.5	45
HV9W07-1784	16.1	69.7	7.63	7.63	178.5	6.8	3.5	920	5.9	47
HV9W07-1942	15.3	65.1	4.38	4.38	174.1	6.9	1.5	840	5.4	44
HV9W07-1028	16.9	70.6	7.50	7.50	178.3	7.9	4.0	1140	7.5	60
TX07A001505	16.1	70.5	9.25	9.25	178.5	7.4	4.5	1010	6.6	54
TX03A0563-07AZHR247	16.0	69.5	3.50	3.50	178.5	7.6	3.5	1005	6.5	54
TX06V7266	15.5	66.5	2.38	2.38	175.6	6.9	2.0	745	4.8	36
TX08A001128	16.6	66.8	3.00	3.00	176.2	7.6	4.0	965	6.3	49
TX08A001249	15.7	72.8	6.25	6.25	181.1	8.6	5.0	1195	8.0	71
TX07V7327	15.2	71.6	5.13	5.13	180.1	7.8	3.5	965	6.3	54
TX08V7173	15.4	67.9	3.75	3.75	176.5	7.3	4.0	995	6.5	56
TX08V7313	14.6	67.5	4.50	4.50	176.7	7.3	3.0	985	6.6	59
NE06430	15.4	69.5	7.00	7.00	178.1	7.3	4.0	990	6.5	56
NE09517	14.9	67.4	6.00	6.00	176.1	7.3	4.5	975	6.5	57
NE09521	16.2	69.6	4.50	4.50	177.9	7.5	4.5	1010	6.6	54
NE08499	16.1	68.5	4.25	4.25	176.7	7.6	3.0	980	6.4	52
NW09627	14.9	68.5	4.00	4.00	178.1	7.1	4.0	935	6.1	53
T175	15.9	69.8	4.75	4.75	179.1	7.2	3.0	915	5.8	48
T185	16.6	67.6	4.13	4.13	176.6	8.8	5.0	1215	8.2	68
T179	16.3	69.2	3.25	3.25	177.9	7.3	2.0	900	5.8	45
LCH08-80	15.8	68.4	2.75	2.75	176.2	7.1	2.0	845	5.5	43
LCH08-12	15.0	68.2	3.75	3.75	177.2	6.9	3.5	860	5.5	47
KS020319-7-3	14.9	67.2	3.63	3.63	176.7	7.2	2.0	965	6.2	56
KS020638-M-5	15.1	68.2	4.00	4.00	176.6	7.0	1.5	890	5.7	49
KS020665-M-3	16.0	69.5	8.13	8.13	178.2	7.8	5.0	1045	6.9	57
KS030975-CF-3	15.6	68.9	6.25	6.25	177.7	7.4	2.0	950	6.2	52

Line	Flour		Mix Time		Dough					
	Protein	Water Abs.	As-is	Corrected	Weight	Proof Height	Crumb Grain	As-Rec'd.	Specific Volume	Loaf Volume Potential
	(%)	(%)	(min)	(min)	(g)	(cm)		(cc)	(cc/g)	(cc/%)
T167	14.6	70.6	4.75	4.75	179.3	8.1	3.0	965	6.3	57

2012 SRPN Intraregional Production Zone Southern High Plains

12-SSH1001



12-SSH1002



12-SSH1003



12-SSH1004



12-SSH1005



12-SSH1006



12-SSH1007



12-SSH1008



12-SSH1009



2012 SRPN Intraregional Production Zone Southern High Plains

12-SSH1010



12-SSH1011



12-SSH1012



12-SSH1013



12-SSH1014



12-SSH1015



12-SSH1016



12-SSH1017



12-SSH1018



2012 SRPN Intraregional Production Zone Southern High Plains

12-SSH1019



12-SSH1020



12-SSH1021



12-SSH1022



12-SSH1023



12-SSH1024



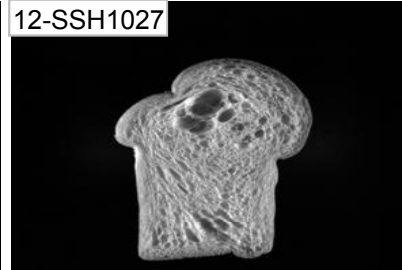
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12-SSH1026



12-SSH1027

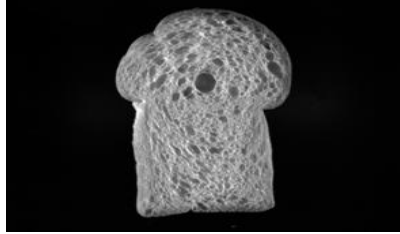


2012 SRPN Intraregional Production Zone Southern High Plains

12-SSH1028



12-SSH1029



12-SSH1030



12-SSH1031



12-SSH1032



12-SSH1033



12-SSH1034



12-SSH1035



12-SSH1036



2012 SRPN Intraregional Production Zone Southern High Plains

12-SSH1037



121-SSH1038



12-SSH1039



12-SSH1040



12-SSH1041



12-SSH1042



12-SSH1043



12-SSH1044

