

ADVANCED NURSERY EVALUATION  
FOR SOFT WHEAT MILLING AND BAKING QUALITY  
2008 CROP

Jose Costa, Univ. of Maryland and Harold Bockelman USDA-ARS  
Composite of three eastern US locations  
Uniform Eastern Winter Wheat Performance Nursery

STD = Roane

LAB		ENTRY	MILLING		BAKING		SOFT.		MICRO		FLOUR		SOFT.		FLOUR		LACTIC		SUCROSE		COOKIE		TOP
NO.			QUALITY		QUALITY		EQUIV.		T.W.		YIELD		EQUIV.		PROT.		ACID		SRC		DIAM.		GR.
			SCORE		SCORE		SCORE		LB/BU		%		%		%		RET'N		%		CM.		
****	STD=	Roane	44.9	E	40.4	E	68.0	C	62.6		66.6		59.0		9.16		111.2		103.8		17.55		3
820941	1	Roane	44.9	E	40.4	E	68.0	C	62.6		66.6		59.0		9.16		111.2		103.8		17.55		3
820942	2	INW0411	51.0	D	72.7	B	63.9	C	58.2	Q	67.8		57.5		9.21		101.6		101.1		18.52		3
820943	3	Branson	58.0	D	73.2	B	86.0	A	59.1	Q	69.2		65.3		8.44		114.2		97.0		18.53		4
820944	4	Bess	45.9	E	62.9	C	59.7	D	60.6	*	66.8		56.1		9.13		96.0		100.8		18.22		4
820945	5	MO011126	65.3	C	87.2	A	62.9	C	61.6		70.6		57.2		9.73		110.2		99.5		18.95		6
820946	6	VA03W-412	64.7	C	86.4	A	73.4	B	62.1		70.5		60.8		8.70		100.5		93.2		18.93		5
820947	7	AR97044-10-2	58.4	D	60.1	C	62.5	C	59.9	Q	69.3		57.0		9.34		107.0		100.2		18.14		4
820948	8	KY96C-0769-7-3	57.9	D	73.7	B	66.6	C	61.7		69.2		58.4		9.45		105.3		100.8		18.55		5
820949	9	OH02-12678	52.3	D	58.7	D	55.2	D	61.4		68.0		54.5	*	9.45		96.8		96.0		18.10		5
820950	10	MO040192	52.7	D	55.0	D	62.1	C	61.5		68.1		56.9		9.07		97.3		99.8		17.99		5
820951	11	IL00-8530	68.4	C	89.2	A	67.8	C	61.4	*	71.2		58.9		9.06		120.0		92.1		19.01		5
820952	12	NC04-20814	55.5	D	55.3	D	60.7	C	61.4		68.7		56.4		9.17		114.1		94.6		18.00		4
820953	13	AR97124-4-2	51.8	D	86.7	A	69.7	C	60.1	Q	67.9		59.5		9.47		104.0		93.7		18.94		5
820954	14	OH02-7217	56.7	D	74.0	B	70.9	B	59.7	Q	68.9		60.0		8.77		113.2		99.3		18.56		4
820955	15	OH03-41-45	47.4	E	62.8	C	70.4	B	62.1		67.1		59.8		8.51		123.2		99.9		18.22		4
820956	16	P02444A1-23-9	48.1	E	69.8	C	69.4	C	58.7	Q	67.2		59.4		8.11		112.3		107.9		18.43		4
820957	17	P03207A1-7	44.4	E	46.7	E	63.0	C	60.2	*	66.5		57.2		9.59		99.9		108.2		17.74		3
820958	18	P04287A1-16	60.3	C	49.4	E	40.0	F	60.4	*	69.6		49.1	Q	9.51		70.6		93.9		17.82		4
820959	19	NYCalR-L	59.2	D	85.1	A	67.2	C	60.7	*	69.4		58.7		8.68		93.2		87.8		18.89		5
820960	20	MD01W233-06-8	40.4	E	66.3	C	68.8	C	62.9		65.7	*	59.2		9.77		103.0		108.0		18.33		5
820961	21	MD01W233-06-21	58.7	D	78.2	B	78.9	B	61.9		69.3		62.8		9.26		106.5		100.3		18.68		5
820962	22	MD99W483-06-9	62.0	C	90.2	A	75.0	B	61.5		70.0		61.4		8.84		96.0		91.2		19.04		5
820963	23	VA05W-257	54.1	D	65.4	C	54.8	D	58.6	Q	68.4		54.3	*	8.73		94.4		100.3		18.30		4
820964	24	VA05W-414	68.9	C	96.6	A	68.6	C	60.5	*	71.3		59.2		8.30		94.2		89.7		19.23		6
820965	25	LA01*425	60.5	C	83.9	A	78.0	B	61.0	*	69.7		62.4		8.05		102.5		92.9		18.85		4
820966	26	LA02-923	42.9	E	81.6	A	57.0	D	59.8	Q	66.2		55.1	*	7.86		112.7		95.8		18.79		5
820967	27	21525c1*	64.8	C	73.1	B	69.4	C	60.5	*	70.5		59.4		9.00		106.0		91.5		18.53		5

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LAB		ENTRY	MILLING		BAKING		SOFT.		MICRO		FLOUR		SOFT.		FLOUR		LACTIC		SUCROSE		COOKIE		TOP
NO.			QUALITY		QUALITY		EQUIV.		T.W.		YIELD		EQUIV.		PROT.		ACID		SRC		DIAM.		GR.
			SCORE		SCORE		SCORE		LB/BU		%		%		%		RET'N		%		CM.		
****	STD=	Roane	44.9	E	40.4	E	68.0	C	62.6		66.6		59.0		9.16		111.2		103.8		17.55		3
820968	28	IL02-18228	50.3	D	37.9	F	47.6	E	61.7		67.6		51.8	Q	9.79		104.3		105.9		17.47		4
820969	29	IL02-19463	58.4	D	56.1	D	85.1	A	60.2	Q	69.3		64.9		9.00		116.0		98.4		18.02		4
820970	30	Mocha exp.	60.4	C	94.3	A	82.8	A	58.5	Q	69.6		64.1		9.02		106.6		97.6		19.17		4
820971	31	Arena exp.	55.7	D	55.4	D	62.1	C	60.8	*	68.7		56.9		9.15		113.6		94.3		18.00		4
820972	32	India exp.	53.7	D	52.9	D	72.8	B	60.2	*	68.3		60.6		9.71		123.7		101.0		17.92		3
820973	33	B030543	62.8	C	77.5	B	54.3	D	63.5		70.1		54.2	*	8.84		98.6		93.1		18.66		4
820974	34	D04*5513	50.3	D	27.7	F	56.2	D	62.2		67.6		54.8	*	9.92	*	115.6		102.3		17.17	*	4
820975	35	M03-3616-11B	54.7	D	82.6	A	68.8	C	60.5	*	68.5		59.2		9.05		85.6		97.6		18.81		4
820976	36	KY97C-0321-02-01	65.9	C	79.5	B	61.6	C	60.3	*	70.7		56.7		9.06		110.0		100.5		18.72		5
820977	37	KY97C-0519-04-07	63.3	C	79.7	B	59.9	D	60.2	*	70.2		56.1		8.78		112.6		97.7		18.73		5
820978	38	W06-202B	48.0	E	46.1	E	60.6	C	60.5	*	67.2		56.3		9.04		128.0		103.0		17.72		3
820979	39	MO040152	56.5	D	52.7	D	67.4	C	62.2		68.9		58.7		9.46		128.5		98.2		17.92		4
820980	40	G41730	51.7	D	47.5	E	45.4	E	61.9		67.9		51.1	Q	9.22		113.4		106.7		17.76		4
820981	41	G52612	53.0	D	65.4	C	68.5	C	62.2		68.2		59.1		8.96		93.8		110.4		18.30		5
820982	42	G69202	56.3	D	72.4	B	65.7	C	62.1		68.8		58.2		8.22		105.7		101.3		18.51		5
820983	43	M04-4566	65.9	C	82.9	A	79.6	B	59.1	Q	70.7		63.0		8.37		97.1		98.3		18.82		5
820984	44	M04-4802	59.9	D	59.6	D	76.4	B	60.3	*	69.5		61.9		8.67		127.0		100.1		18.12		4
820985	45	M04*5109	67.1	C	71.4	B	71.9	B	62.4		71.0		60.3		8.56		125.0		99.5		18.48		5
		Average	56.2	D	68.1		66.1		60.9		68.8		58.3		9.0		106.9		98.8		18.4		4.4

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GRAIN CONDITION SCALE

FHB, SPROUTING and BLACK POINT

0	None
1	up to 10%
2	10% to 40%
3	above 40%

SHRIVELING

0	None
1	Some
2	Moderate
3	Heavy

SAMPLE NO.	ENTRY	FHB (0-3)	WEATHERING (Yes/No)	SPROUTING (0-3)	BLACK POINT (0-3)	SHRIVELING AFTER CLEANING (0-3)	COMMENTS
1	Roane	1-?	0	0	1	1	0
2	INW0411	1	Y	0	1	2	0
3	Branson	1	0	?	1	1	0
4	Bess	1-?	Y	0	2	1	Few white
5	MO011126	2	Y	1	2	2	0
6	VA03W-412	1-?	0	0	1-?	1	0
7	AR97044-10-2	2	Y	0	2	2	0
8	KY96C-0769-7-3	1	?	0	1	2	0
9	OH02-12678	1	Y	1	1	1	0
10	MO040192	2	Y	0	2	2	0
11	IL00-8530	1	0	0	2	1	0
12	NC04-20814	1	0	0	2	2	0
13	AR97124-4-2	2	Y	0	1	1	0
14	OH02-7217	1-?	?	0	1	0	0
15	OH03-41-45	1	0	0	2	1	0
16	P02444A1-23-9	1	Y	0	2	1	0
17	P03207A1-7	2	Y	1	1-?	2	0
18	P04287A1-16	2	Y	1	1	2	0
19	NYCaIR-L	2	0	1	2	2	Few red
20	MD01W233-06-8	1	0	0	1	1	0
21	MD01W233-06-21	1	0	0	1	1	0
22	MD99W483-06-9	2	Y	0	1	1	Few white
23	VA05W-257	2	Y	1	2	2	0
24	VA05W-414	1-?	Y	1	1	2	0
25	LA01*425	1	0	0	1-?	1	Few white
26	LA02-923	2	Y	0	2	1	0
27	21525c1*	1	0	0	1	1	0
28	IL02-18228	1	Y	1	1	2	0
29	IL02-19463	1	Y	1	1	1	0
30	Mocha exp.	2	0	0	1	1	0

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GRAIN CONDITION SCALE

FHB, SPROUTING and BLACK POINT

0 None  
1 up to 10%  
2 10% to 40%  
3 above 40%

SHRIVELING

0 None  
1 Some  
2 Moderate  
3 Heavy

SAMPLE NO.	ENTRY	FHB (0-3)	WEATHERING (Yes/No)	SPROUTING (0-3)	BLACK POINT (0-3)	SHRIVELING AFTER CLEANING (0-3)	COMMENTS
31	Arena exp.	2	Y	0	1	1	Few white
32	India exp.	2	Y	0	1-?	1	0
33	B030543	1	0	0	1	1	0
34	D04*5513	2	Y	?	1	2	0
35	M03-3616-11B	1	0	1	2	1	0
36	KY97C-0321-02-01	1-?	Y	0	2-?	1	0
37	KY97C-0519-04-07	1	Y	0	2	1	0
38	W06-202B	1	0	0	2	1	0
39	MO040152	1	0	0	2	2	Few white
40	G41730	1	?	0	1	1	0
41	G52612	1	Y	0	1	0	0
42	G69202	1	0	0	1	1	0
43	M04-4566	1-?	Y	0	1	1	0
44	M04-4802	1	Y	0	1	1	0
45	M04*5109	1	Y	0	1	1	0

ADVANCED NURSERY  
EVALUATION SUMMARY  
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	STD.		AVG.	
	DATA		DATA	
MILLING QUALITY SCORE	44.92	E	56.2	
BAKING QUALITY SCORE	40.42	E	68.1	
SE SCORE	68.04	C	66.1	

	STD.		AVG.		ADJ.		NOTATION		
	DATA		DATA		L.S.D.		BEGINS		
							*		Q
TEST WEIGHT	62.59		60.86		1.21		61.38		60.17
FLOUR YIELD	66.56		68.81		0.71		65.84		65.13
SOFTNESS EQUIV.	58.97		58.30		3.17		55.79		52.62
FLOUR PROTEIN	9.16		9.00		0.74		9.90		10.64
LACTIC ACID RETENTION	111.23		106.90						
SUCROSE SRC	103.75		98.78						
COOKIE DIAMETER	17.55		18.38		0.23		17.31		17.08

	A		B		C		D		E		F
MILLING SCORE	0		0		14		23		8		0
BAKING SCORE	12		11		7		8		5		2
SOFTNESS EQUIV. SCORE	3		10		22		7		2		1

TOTAL

45

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SAMPLE	ENTRY	MILLING	BAKING	SOFT.	TEST	ADJ.
NO.		QUALITY	QUALITY	EQUIV.	WT.	YIELD
		SCORE	SCORE	SCORE	LB/BU	%
	Nursery Average	56.2	68.1	66.1	60.86	68.81
	Allis Database - Roane	44.9	E 40.4	E 68.0	C	74.68