

EARLY GENERATION SCREENING EVALUATION  
FOR SOFT WHEAT MILLING AND BAKING QUALITY  
2008 CROP

Ben Edge - Clemson University  
South Carolina  
Southern Uniform Winter Wheat FHB Nursery

STANDARD = ERNIE

SAMPLE NO.	ENTRY	MILLING QUALITY	BAKING QUALITY	SOFT. EQUIV.	TEST WT. LB/BU	ADJ. YIELD %	SOFT. EQUIV. %	FLOUR PROT. %	LACTIC ACID SRC	SUCROSE %	FHB severity		FHB index				
											Mean all locations		Mean all locations				
											%	rank	%	rank			
*	STD = ERNIE	54.6	D	75.8	B	75.7	B	61.5	67.2	52.5	10.05	100.9	92.5	24.3	5	15.5	3
810676	1 ERNIE	54.6	D	75.8	B	75.7	B	61.5	67.2	52.5	10.05	100.9	92.5	24.3	5	15.5	3
810677	2 COKER 9835	66.8	C	78.8	B	92.9	A	61.2	69.6	58.5	9.73	77.5	96.1	70.4	52	54.1	51
810678	3 BESS	67.8	C	73.0	B	73.8	B	62.4	69.8	51.9	10.14	87.6	93.1	25.6	6	14.0	2
810679	4 JAMESTOWN	62.3	C	70.8	B	72.3	B	64.5	68.7	51.3	10.63	82.4	92.6	28.9	9	21.0	11
810680	5 TRIBUTE	68.0	C	76.7	B	67.0	C	63.8	69.9	49.5	* 10.49	97.5	89.1	32.5	15	20.9	11
810681	6 AR 97002-10-2	75.1	B	98.4	A	79.1	B	61.7	71.3	53.7	10.56	85.2	82.6	38.5	30	31.9	38
810682	7 AR 97002-2-1	64.1	C	83.0	A	75.1	B	61.0	69.1	52.3	10.74	75.5	87.9	28.0	7	18.4	7
810683	8 AR 97124-4-2	65.9	C	90.5	A	74.6	B	62.3	69.5	52.2	10.37	89.6	85.3	33.3	15	23.2	14
810684	9 MD01W233-06-1	52.6	D	58.9	D	77.8	B	62.2	66.8	53.3	13.29	Q 72.8	93.6	21.9	3	14.5	3
810685	10 GA991109-6E8	67.9	C	70.7	B	65.0	C	64.2	69.8	48.8	* 9.45	97.0	93.3	36.6	28	26.3	25
810686	11 GA991371-6E12	77.2	B	67.1	C	75.7	B	62.4	71.7	52.5	11.37	* 89.5	93.5	39.7	33	35.6	42
810687	12 AR 99028-1-1	56.5	D	89.0	A	88.0	A	61.9	67.6	56.8	11.06	* 84.1	87.8	52.5	49	39.0	45
810688	13 AR 99039-5-2	56.7	D	46.8	E	76.3	B	62.6	67.6	52.7	11.68	* 91.1	101.7	40.8	36	31.2	36
810689	14 AR 99263-7-1	65.6	C	77.3	B	66.9	C	61.5	69.4	49.5	* 10.90	92.9	88.0	23.0	4	16.2	5
810690	15 ARGE97-1047-2	75.4	B	84.1	A	76.3	B	62.4	71.3	52.8	10.48	87.4	88.2	52.7	50	46.7	50
810691	16 B030543	70.9	B	85.5	A	58.0	D	63.3	70.4	46.3	Q 10.32	78.9	83.5	33.1	15	22.7	14
810692	17 D04*5546	74.4	B	85.0	A	79.2	B	61.8	71.1	53.8	10.34	92.9	88.8	40.5	36	27.2	26
810693	18 D05*6437	65.8	C	83.0	A	83.6	A	61.7	69.4	55.3	10.27	95.5	91.0	49.3	46	39.4	45
810694	19 GA031454-DH7	72.1	B	75.6	B	68.6	C	59.4	* 70.7	50.1	12.39	Q 81.0	86.1	41.9	40	36.5	44
810695	20 GA031454-DH31	63.0	C	55.1	D	69.4	C	61.5	68.9	50.3	11.75	* 106.7	96.3	61.1	51	56.2	52
810696	21 GA031307-DH6	61.6	C	67.1	C	56.2	D	62.3	68.6	45.7	Q 11.36	* 83.1	88.8	41.9	40	31.8	38
810697	22 GA031307-DH14	67.7	C	73.2	B	62.4	C	63.7	69.8	47.9	* 10.98	88.5	88.4	38.1	30	31.3	36
810698	23 GA031354-DH30	76.2	B	38.8	F	25.6	F	61.9	71.5	35.0	Q 14.99	Q 60.1	85.9	46.5	45	42.1	48
810699	24 GA981621-5E34	71.4	B	75.6	B	89.7	A	60.3	* 70.5	57.4	11.30	* 87.3	93.5	41.1	36	28.9	32
810700	25 LA01141D-138-4-B	66.7	C	51.2	D	67.2	C	62.6	69.6	49.6	* 11.91	* 72.9	97.1	38.0	30	28.8	32
810701	26 LA01150D-79-7-B	62.8	C	47.2	E	72.3	B	63.3	68.8	51.3	11.23	* 110.8	101.5	46.1	43	45.9	49
810702	27 LA01162D-131-8-B	77.7	B	71.5	B	71.2	B	61.8	71.8	51.0	10.90	86.4	91.5	28.2	7	20.3	9
810703	28 LA01162D-136-8-B	68.4	C	48.4	E	66.2	C	58.9	Q 69.9	49.2	* 12.18	Q 60.7	97.5	33.4	15	22.5	14
810704	29 LA01164D-94-2-B	71.3	B	75.1	B	67.5	C	58.7	Q 70.5	49.7	* 11.58	* 65.1	87.7	30.7	11	25.3	21
810705	30 NC05-25062	70.1	B	26.6	F	9.9	F	60.8	70.3	29.5	Q 14.13	Q 51.1	89.0	33.7	21	22.5	14
810706	31 NC05-25059	75.3	B	50.6	D	19.6	F	61.2	71.3	32.9	Q 13.92	Q 52.1	81.6	42.8	42	33.5	41
810707	32 NC05-25066	76.5	B	39.3	F	16.9	F	62.4	71.6	32.0	Q 14.13	Q 59.8	85.3	36.7	28	25.5	21
810708	33 NC05-21090	65.9	C	77.9	B	79.2	B	62.2	69.5	53.8	10.36	97.2	91.9	29.6	10	22.9	14

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SAMPLE NO.	ENTRY	MILLING QUALITY	BAKING QUALITY	SOFT. EQUIV.	TEST WT.	ADJ. YIELD	SOFT. EQUIV.	FLOUR PROT.	LACTIC ACID SRC	SUCROSE %	FHB severity		FHB index				
											Mean all locations		Mean all locations				
											%	rank	%	rank			
*	STD = ERNIE	54.6	D	75.8	B	75.7	B	61.5	67.2	52.5	10.05	100.9	92.5	24.3	5	15.5	3
810709	34 NC05-19896	77.6	B	80.7	A	62.1	C	63.7	71.8	47.8	* 10.66	96.7	85.8	33.4	15	27.0	26
810710	35 NC05-24730	73.8	B	82.5	A	61.9	C	62.1	71.0	47.7	* 10.71	93.7	84.9	39.7	33	26.8	26
810711	36 NC05-24112	64.8	C	57.1	D	64.7	C	63.5	69.2	48.7	* 10.84	99.0	96.2	49.1	46	35.9	42
810712	37 MD01W233-06-16	51.9	D	65.4	C	60.7	C	64.6	66.7	47.3	* 11.25	* 82.2	90.8	30.9	11	19.4	8
810713	38 MD99W483-06-11	70.8	B	65.3	C	71.4	B	63.3	70.4	51.0	10.36	95.3	95.4	46.0	43	32.2	38
810714	39 M03-3616B	69.3	C	94.8	A	75.4	B	62.2	70.1	52.4	10.14	64.4	84.1	17.3	1	16.7	6
810715	40 M03-3616C	60.9	C	88.1	A	71.0	B	63.1	68.5	50.9	10.54	69.9	85.1	18.3	2	13.0	1
810716	41 M04-4802	65.7	C	82.1	A	93.2	A	59.7	* 69.4	58.7	9.61	110.6	95.1	34.9	25	27.4	26
810717	42 M04-4566	72.6	B	85.1	A	83.3	A	61.5	70.8	55.2	9.19	87.4	92.2	50.5	48	39.3	45
810718	43 M04-4715	52.0	D	70.2	B	61.1	C	60.6	66.7	47.4	* 10.61	95.9	90.2	41.4	36	30.3	35
810719	44 M04*5109	73.0	B	90.1	A	77.3	B	63.2	70.9	53.1	9.52	102.5	87.9	34.1	21	23.8	20
810720	45 M05-1172	62.4	C	74.3	B	53.7	D	65.1	68.8	44.8	Q 9.84	91.1	88.2	31.0	11	27.1	26
810721	46 M05*1589	62.4	C	94.7	A	77.4	B	63.0	68.7	53.1	9.82	97.7	85.3	34.2	21	23.5	14
810722	47 VA04W-360	65.7	C	68.6	C	81.9	A	63.0	69.4	54.7	10.77	114.9	95.7	35.0	25	25.3	21
810723	48 VA05W-510	69.1	C	79.0	B	66.9	C	64.0	70.1	49.5	* 9.90	88.3	89.3	30.9	11	22.3	13
810724	49 VA05W-714	63.2	C	81.3	A	57.3	D	62.3	68.9	46.1	Q 10.85	79.8	84.0	35.9	27	24.8	21
810725	50 VA05W-641	62.3	C	52.9	D	64.7	C	62.9	68.7	48.7	* 10.87	103.9	98.0	39.8	33	26.6	26
810726	51 VA06W-600	64.7	C	83.8	A	83.5	A	63.1	69.2	55.3	9.51	100.3	92.2	33.9	21	20.4	9
810727	52 VA06W-608	62.5	C	86.5	A	80.0	A	62.2	68.8	54.1	9.75	96.3	89.6	33.4	15	28.6	32
	Average	66.9	C	72.1		68.2		62.2	69.7	49.9	11.0	86.8	90.4	36.0		27.0	
	L.S.D.(0.05)													26.0		23.0	
	CV%													36.0		44.0	

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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
810676	1 ERNIE	?	N	0	0	1	0
810677	2 COKER 9835	0	?	0	0	0	0
810678	3 BESS	0	N	0	0	0	0
810679	4 JAMESTOWN	0	N	0	1	0	0
810680	5 TRIBUTE	1(?)	N	0	1	0	0
810681	6 AR 97002-10-2	?	N	0	0	0	0
810682	7 AR 97002-2-1	0	N	0	0	0	0
810683	8 AR 97124-4-2	0	N	0	1	0	Few white
810684	9 MD01W233-06-1	?	?	0	0	0	0
810685	10 GA991109-6E8	1	Y	0	1	0	0
810686	11 GA991371-6E12	1-?	Y	0	1	1	0
810687	12 AR 99028-1-1	1-?	N	0	0	0	0
810688	13 AR 99039-5-2	1(?)	Y	0	0	0	0
810689	14 AR 99263-7-1	1(?)	Y	0	1	0	0
810690	15 ARGE97-1047-2	1	N	0	1	1	0
810691	16 B030543	1	N	0	1	0	0
810692	17 D04*5546	1	N	0	1	1	0
810693	18 D05*6437	0	?	0	1	0	Some white
810694	19 GA031454-DH7	1-?	Y	0	1	1	0
810695	20 GA031454-DH31	1	Y	0	0	2	0
810696	21 GA031307-DH6	1	Y	0	1	1	0
810697	22 GA031307-DH14	1	N	0	1	0	0
810698	23 GA031354-DH30	?	Y	0	0	1	0
810699	24 GA981621-5E34	1	Y	0	1	0	0
810700	25 LA01141D-138-4-B	?	Y	0	1	1	0
810701	26 LA01150D-79-7-B	1-?	Y	0	1	1	0
810702	27 LA01162D-131-8-B	1	N	0	1	0	0
810703	28 LA01162D-136-8-B	1	N	0	0	0	Few white
810704	29 LA01164D-94-2-B	1	N	0	0	0	Few white
810705	30 NC05-25062	1-?	Y	0	1	0	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
810706	31 NC05-25059	1	Y	0	1	1	0
810707	32 NC05-25066	1-?	Y	0	1	0	0
810708	33 NC05-21090	1	N	0	1	0	Few white
810709	34 NC05-19896	1	N	0	0	1	0
810710	35 NC05-24730	1	N	0	0	1	0
810711	36 NC05-24112	1	N	0	1	0	0
810712	37 MD01W233-06-16	?	N	0	1	0	0
810713	38 MD99W483-06-11	1	N	0	1	0	0
810714	39 M03-3616B	?	Y	0	1	0	0
810715	40 M03-3616C	0	Y	0	1	0	0
810716	41 M04-4802	1	N	0	1	1	0
810717	42 M04-4566	0	N	0	1	0	0
810718	43 M04-4715	1	Y	0	1	1	0
810719	44 M04*5109	0	?	0	1	0	0
810720	45 M05-1172	0	N	0	1	0	0
810721	46 M05*1589	0	N	0	0	0	Few white
810722	47 VA04W-360	0	N	0	0	0	Red & white mixed
810723	48 VA05W-510	?	N	0	1	0	0
810724	49 VA05W-714	1	Y	0	1	0	0
810725	50 VA05W-641	0	?	0	1	0	0
810726	51 VA06W-600	?	N	0	1	0	0
810727	52 VA06W-608	1	?	0	0	1	Few white

EARLY GENERATION SCREENING  
EVALUATION SUMMARY  
2008 CROP

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	STD.		AVG.	
	DATA		DATA	
MILLING QUALITY SCORE	54.6	D	66.9	
BAKING QUALITY SCORE	75.8	B	72.1	
SE SCORE	75.7	B	68.2	

	STD.		AVG.		ADJ.		NOTATION		
	DATA		DATA		L.S.D.		BEGINS		
							*		Q
TEST WEIGHT	61.46		62.24		1.19		60.28		59.09
FLOUR YIELD	67.20		69.65		0.72		66.48		65.75
SOFTNESS EQUIV.	52.54		49.91		2.83		49.71		46.89
FLOUR PROTEIN	10.05		10.96		0.99		11.03		12.02
SUCROSE SRC	92.54		90.40		4.07				
LACTIC ACID SRC	100.92		86.76		4.44				

	A		B		C		D		E		F
MILLING SCORE	0		18		28		6		0		0
BAKING SCORE	19		16		5		6		3		3
SOFTNESS EQUIV. SCORE	9		19		16		4		0		4

TOTAL

52

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SAMPLE		ENTRY	MILLING		BAKING		SOFT.		TEST		ADJ.		SOFT.		FLOUR		LACTIC		SUCROSE
NO.			QUALITY		QUALITY		EQUIV.		WT.		YIELD		EQUIV.		PROT.		ACID		SRC
			SCORE		SCORE		SCORE		LB/BU		%		%		%		SRC		%
		Nursery Average	66.9		72.1		68.2		62.2		69.7		49.9		10.96		86.8		90.40
		Allis Database - Ernie	54.6		75.8		75.7		60.1		75.9				8.89		99.0		
		Ernie	54.63	D	75.83	B	75.71	B	61.46		67.20		52.54		10.05		100.92		92.54
Database	Average	Ernie	55.9		64.3		67.6		60.2		68.3		55.0		8.8		87.4		84.1
Database	St. Dev	Ernie	4.3		14.7		10.5		1.7		0.8		2.5		0.6		11.1		3.3
		Tribute	68.03	C	76.70	B	67.04	C	63.81		69.87		49.50	*	10.49		97.51		89.12
Database	Average	Tribute	69.0		47.4		59.1		63.9		70.6		53.8		8.3		102.6		88.7
Database	St. Dev	Tribute	5.7		10.4		7.2		2.3		0.7		4.4		0.6		6.5		3.0

Conditional formatting set:

Blue = values less than two standard deviations from the mean of the database average

Black = values greater than two standard deviations from the mean of the database average