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UNIFORM SOUTHERN SOFT RED WINTER WHEAT NURSERY

Report

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USSRWWN cooperators may use the following data from this report in registration notices, release requests, and PVP applications: their line, the check entries, the mean of the test, and (with permission from the owners) any other lines that have already been released.

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**2008-2009 UNIFORM SOUTHERN SOFT RED WINTER WHEAT NURSERY
LIST OF ENTRIES AND PEDIGREES**

Entry No.	Cultivar/ Designation	Pedigree	Contributor	1st Year in Nursery
1	AGS 2000	Pio.2555/PF84301//FL 302 (formerly GA89482E7)	Check	97-98
2	Pioneer Brand 26R61	Omega78/S76/4/Arthur71/3/Stadler//Redcoat/Wisc1/5/Coker747/6/2555sib (formerly XW663)	Check	97-98
3	Coker 9553	89M-4035A(IL77-2656/NK79W810/Pio2580 (formerly D00*6874-2)	Check	04-05
4	USG 3555	VA94-52-60/Pio2643//USG3209 (formerly VA02W-555)	Check	04-05
5	MO011126	MO94-103/Pio2552	McKendry	06-07
6	NC04-20814	NC94-6275/P86958//VA96-54-234	Murphy	07-08
7	LA01140D-70	LA841/LA422//Pio26R61	Harrison	07-08
8	TN802	(Cardinal/FL302)/AR EXP 494 B 2 2//(Fillmore/Cardinal)/Jackson	West	08-09
9	TN501	P2552//FFL EX304/Dozier	West	08-09
10	W990002K1	Ciqueba/C762/3/FL72185/3/C762//ETC./SC847523/SC828351//SC838//H14H 15/Williams,H18/NC96BGT A6 (Saluda*3/PI42772) T.mono.Aeg	Edge	08-09
11	W980031K1	FL931339AS (USW97-19 H21, Purple awn)//LA8529-B-3-5-11-2-B-1(USW97-27 C797/FL7297 Awned)	Edge	08-09
12	W980031L1	FL931339AS (USW97-19 H21, Purple awn)//LA8529-B-3-5-11-2-B-1(USW97-27 C797/FL7297 Awned)	Edge	08-09
13	GA031238-DH7-7E34	96229-3E39(sis SS8641)/USG3295	Johnson	08-09
14	GA001170-7E26	Pio 26R61/96667(Saluda/*2 NC109PM)//AGS2000	Johnson	08-09
15	GA001169-7E15	96667 *2(Saluda/*2 NC109PM)/AGS2000	Johnson	08-09
16	GA001492-7E9	941396/2*AGS2000	Johnson	08-09
17	MD01W233-07-1	McCormick/Choptank	Costa	08-09
18	MD00W53-07-1	XW672/Tribute	Costa	08-09
19	G89270	OH413/C9663	Brown	08-09
20	G89283	T95/C86-33	Brown	08-09
21	G89267	VA91-54-219/OH413	Brown	08-09
22	B040798	BL920520/9244BX-2-1-4	Hancock	08-09
23	D05-6189	AR584A*3-2/LA87-167-D8-10-2	Hancock	08-09
24	D05*6441	FFR502/AR584A*3-2	Hancock	08-09
25	FL01029-K1	LA94162D157-1/AGS2000	Barnett/Blount	08-09
26	Z03-0496	Clark/W-65//Clemson	Moreno	08-09
27	ARS03-5358	Pat/TX98D2106	Marshall	08-09
28	ARS05-0443	Neuse/TX98D2334	Marshall	08-09
29	VA04W-90	SS520/Pio2552//Roane	Griffey	08-09
30	VA05W-139	Pio26R24/McCormick	Griffey	08-09
31	VA06W-392	VA96W-49(Savannah/Madison)/AGS2000//RC-Strategy(VA98W-586)	Griffey	08-09
32	VA05W-251	VA98W-130(Savannah/VA87-54-558//VA88-54-328/Gore)/VA96W-348(IN81401A1-32-2/FFR555W)/Pio26R61	Griffey	08-09
33	LA01034D-235-1	LA94214D200(Pio2684/CK9663)/LA841	Harrison	08-09
34	LA01029D-139-3	LA94162D157-1(FR93.13/FL85238-G76)/AGS2000	Harrison	08-09
35	LA01139D-56-1	LA00056(LA841/LA422)/P26R61	Harrison	08-09
36	AR96052-4-3	Ceruga-15/Pio2643	Bacon	08-09
37	AR98088-1-1	Pio2580/Jaypee	Bacon	08-09
38	NC05-21090	Burr/NC96BGT A6 sib//Natchez	Murphy	08-09
39	NC05-20276	P86300(SN)/NC95-22426	Murphy	08-09
40	NC05-19684	P92118(SN)/VA94-52-25//NC96BGTD3	Murphy	08-09

LOCATION NOTES

Belle Mina, Alabama

Cooperators: Kathryn M. Glass
Auburn University
Planted: October 31, 2008
Harvested: June 9, 2009
Fertilizer: 80 N

Bay, Arkansas

Cooperators: June Hancock, David Hill, Richard Gray
Syngenta Seeds
Planted: October 15, 2008
Harvested: June 19, 2009
Notes: From April 2 to June 16 approximately 33 inches of rain at the Bay station.

Stuttgart, Arkansas

Cooperators: John Kelly, Robert Bacon
University of Arkansas
Planted: October 30, 2008
Harvested: June 10, 2009
Notes: Several severe storms with high winds and excessive rainfall from heading to harvest.

Middletown, Delaware

Cooperators: Bob Uniatowski
University of Delaware
Planted: October 29, 2008
Harvested: June 30, 2009
Fertilizer: 100 N

Quincy, Florida

Cooperators: Ron Barnett, Ann Blount
University of Florida
Planted: December 9, 2008
Notes: Heading date of 118 indicates a very late heading/partially vernalized line – these are guesstimates since the last actual heading date recorded was 112.

Griffin, Georgia

Cooperators: Jerry Johnson, Dan Bland, John Youmans, David Buntin, Steve Sutton, Kathryn Harman
University of Georgia
Planted: November 1, 2008
Harvested: June 8, 2009
Fertilizer: 20-40-60, 75 N topdress

Plains, Georgia

Cooperators: Jerry Johnson, Dan Bland, John Youmans, David Buntin, Steve Sutton, Kathryn Harman
University of Georgia
Planted: November 16, 2008
Harvested: May 31, 2009
Fertilizer: 20-40-60, 75 N topdress
Notes: Hessian fly data was taken from 3ft rows in the spring.

Ft. Branch, Indiana

Cooperators: Ben Moreno, Justin Cooley
Westbred LLC

Lafayette, Indiana

Cooperators: Ben Moreno, Justin Cooley
Westbred LLC

Owensville, Indiana

Cooperators: J. Barton Fogleman, Jennifer Vonderwell, Eugene Glover
Syngenta Seeds
Planted: October 23, 2008
Harvested: June 25, 2009
Notes: Test Weights measured on air-blasted grain with Dickey John GAC II bench tester, rather than the combine-generated values. Harvest at Owensville was interrupted by rain about 1/3 into the trials (both UEN & USN); completed on June 25, begun on June 22, 2008 -- Individual rep moistures reflected this. VISUAL SCAB - Obviously from the FDK % counts, some of these 'scabby' lines were very adept at letting their FDK kernels blow out of the back of the combine (or maybe visual scab ratings are suspect...you be the judge).

Tipton, Indiana

Cooperators: Sam Brown, Katie Russler
Genesis Seed Research
Planted: October 13, 2008
Harvested: July 5, 2009
Fertilizer: 30 N fall, 60 N on 2/24, 40 N on 3/27

Notes: Water damage from two storms, each with two or more inches of rain which selectively cut through some plots. These fell in February and early March when there was frost in the ground. The CV is high. We felt though that the yield potential expressed by some of the lines was worth harvesting the plots. Because of winterkill we have an incomplete data set.

West Lafayette, Indiana

Cooperators: Sue Cambron
USDA-ARS, Crop Production & Pest Control Research
Notes: Hessian fly data with multiple biotypes.

Independence, Kansas

Cooperators: Sid Perry
Westbred LLC
Planted: October 27, 2008
Harvested: June 22, 2009

Lexington, Kentucky

Cooperators: Dave Van Sanford
University of Kentucky
Planted: October 23, 2008
Harvested: June 30, 2009
Fertilizer: P,K according to soil tests, 110 N in split applications

Logan Co., Kentucky

Cooperators: Dave Van Sanford
University of Kentucky
Notes: Good scab ratings, but nursery was not harvested due to hail storm.

Baton Rouge, Louisiana

Cooperators: Stephen A. Harrison, Kelly Arceneaux, Glenn Schexnayder,
McCarthy
Louisiana State University
Planted: November 15, 2008
Harvested: May 21, 2009
Fertilizer: 16-48-48 + 90-0-0
Notes: Lodging caused in early April by a strong storm (rain + 60 mph wind) just after heading. Leaf rust from 2 yield plot reps plus a headrow plot. Blackpoint pretty severe from frequent rainfall during late grainfill. Phenotype: 0 = excellent, 9 = very poor - average of 3 ratings in spring.

Crowley, Louisiana

Cooperators: Stephen A. Harrison, Kelly Arceneaux, Glenn Schexnayder,
McCarthy

Louisiana State University

Notes: Stem rust data from headrow plots.

Winnsboro, Louisiana

Cooperators: Stephen A. Harrison, Kelly Arceneaux, Glenn Schexnayder,
McCarthy, Padgett, Mascagni

Louisiana State University

Planted: November 18, 2008

Harvested: May 29, 2009

Notes: Very wet Dec - January limited tillering. Very dry Feb - March limited head size. Moderate / light disease pressure. Rain and humidity late in maturity caused black point. Blackpoint pretty severe from frequent rainfall during late grainfill. Phenotype: 0 = excellent, 9 = very poor - average of 3 ratings in spring.

Queenstown, Maryland

Cooperators: Jose Costa, Aaron Cooper
University of Maryland

Planted: October 8, 2008

Harvested: June 23, 2009

Fertilizer: 20 N fall, 80 N spring

Notes: Wet spring. Scab (FHB) was very significant. No mildew or rusts.

St. Paul, Minnesota

Cooperators: Jim Kolmer, Yue Jin, Dave Long
USDA-ARS, Cereal Disease Laboratory

Notes: Leaf rust and stem rust multi-isolate seedling data.

Portageville, Missouri

Cooperators: Anne L. McKendry, David Tague
University of Missouri

Planted: October 28, 2008

Harvested: June 19, 2009

Fertilizer: 40 N fall, 80 N spring

Notes: The location was planted according to the fly free date into a wet seed bed. Wet conditions persisted through the fall impacting winter survival. The spring was cooler than normal and wet weather persisted through the heading window resulting in significant levels of FHB in the plots. Ratings were taken 21 days after the mean heading date for the location. However, FHB symptoms continued to progress and thus, losses in susceptible lines are probably underestimated by a minimum of 10% and in highly susceptible lines by as much as 25-30%.

Cleveland, Mississippi

Cooperators: June Hancock, David Hill, Richard Gray
Syngenta Seeds
Planted: November 5, 2008
Harvested: June 11, 2009
Notes: Eighteen to twenty-two inches of rain in the last 90 days.

Newton, Mississippi

Cooperators: Brad Burgess
Mississippi State University
Planted: October 31, 2008
Harvested: May 29, 2009
Fertilizer: 300# 34-0-0

Kinston, North Carolina

Cooperators: Paul Murphy
North Carolina State University
Planted: October 24, 2008
Harvested: June 2, 2009
Fertilizer: 130 N
Notes: Timely planting, cold winter, timely harvest, a good year. BYDV generally an important factor on yield. Powdery mildew data taken at non-yield test location. Rust came in late.

Laurel Springs, North Carolina

Cooperators: David Marshall, Myron Fountain
USDA-ARS, Plant Science Research
Notes: Adult-plant stripe rust data. Nursery was inoculated in February with “field” isolate (primarily PST100 and 101).

Raleigh, North Carolina

Cooperators: David Livingston, Tan Tuong
USDA-ARS, Plant Science Research
Notes: Controlled environment freeze test. Ten plants per entry were planted in cone-tainers (Livingston et al. 2005, Crop Science, 45:1545-1558). Plants were grown for 5 weeks at 13°C; 12 hours light/dark period; 400µmole light intensity, then hardened in chamber for 3 weeks at 3°C; 12 hours light/dark period; 350µmole light intensity. After 3 weeks, plants were subzero acclimated for 3 days @ -3°C in the dark, frozen @ 1°C/hour to -16°C for 3 hours, then thawed @ 2°C/hour to 3°C. Once removed from testing chambers, plants were watered once with 0.001% (v/v) Vitavax fungicide solution -And allowed to recover for 3 weeks at 13°C in cone-tainers; 12 hours light/dark period; 400µmole light. Plant survival ratings were rated for regrowth after 4 weeks by

visually assessing leaves and roots. **0** = Completely dead; **1** = 1 survived (green) shoot **or** 1 primary root; **2** = 1 or 2 survived (green) shoots **or** 1 survived shoot **and** 1 or 2 primary roots; **3** = 1 or 2 survived shoots with developed roots (primary and secondary roots); **4** = 95% survived shoots with well developed roots; **5** = 100% survived with very little or no sign of freeze damage.

Raleigh, North Carolina

Cooperators: Gina Brown-Guedira
USDA-ARS, Eastern Regional Small Grains Genotyping Lab
Notes: Marker analysis.

Wooster, Ohio

Cooperators: Clay Sneller
Ohio State University, OARDC

Wooster, Ohio

Cooperators: Edward Souza
USDA-ARS, Soft Wheat Quality Laboratory
Notes: Milling and baking quality data.

Enid, Oklahoma

Cooperators: Brett Carver
Oklahoma State University
Notes: Acid soil tolerance data. Soil pH=4.0 to 4.3. Scale of 0 (most tolerant) to 5 (most susceptible) based on overall vigor, discoloration, and tiller production. Vegetative ratings may not associate with those taken on adult plants; adult-plant ratings not recorded due to difficulty in detecting genetic differences. Inherent differences in tillering capacity and growth habit (prostrate vs. erect) may have biased vegetative ratings.

Knoxville, Tennessee

Cooperators: Dennis West
University of Tennessee
Planted: October 20, 2008
Harvested: June 16, 2009
Fertilizer: 30-30-30 fall, 60-0-0 spring
Notes: Excellent conditions from planting until heading. Lodging from several thunderstorms with high wind from heading to harvest.

Leonard, Texas

Cooperators: Russell Sutton
Texas A&M University – Commerce
Notes: Nursery was not harvested due to freeze damage.

Blacksburg, Virginia

Cooperators: Carl Griffey
Virginia Tech
Planted: September 24, 2008
Harvested: June 24, 2009
Fertilizer: 30-80-80, 50 N on 3/10, 50 N on 3/24
Notes: Also provided seedling leaf rust and powdery mildew data gathered in the greenhouse.

Warsaw, Virginia

Cooperators: Carl Griffey
Virginia Tech
Planted: October 14, 2008
Harvested: June 21, 2009
Fertilizer: 30-80-80-5 on 10/9, 40# 24-0-0-3 on 2/9, 40# 24-0-0-3 on 3/25
Notes: Due to a planting error entries 10, 21, 22, 31, and 32 had only one rep of data. Agrobase was used to calculate approximate values for the missing data.

Mt. Vernon, Pullman, and Walla Walla, Washington

Cooperators: Xianming Chen
USDA-ARS, Wheat Genetics, Quality, Physiology, & Disease Research
Notes: Adult stripe rust data. Infection Type (IT) was recorded based on the 0-9 scale with ITs 8 and 9 combined as 8 (the most susceptible reaction) in field data. Generally IT 0-3 are considered resistant, 4-6 intermediate, and 7-9 susceptible. Heterogenous reactions of an entry were indicated by two or more ITs separated by "," for most plants with the first IT and few plants with the second IT or connected with "-" for entries containing plants with continuous ITs. Entries with a high IT in the first note, but a low IT in the second note may indicate that they have high-temperature, adult-plant (HTAP) resistance.

Oconto, Wisconsin

Cooperators: Gordon Cisar
Great Lakes Cereal Grains
Planted: September 29, 2008
Harvested: July 30, 2009
Notes: Long season, late harvest. Lots of snow cover, but with differential winter injury.



**2008 - 2009 USSRWVN
TESTING LOCATIONS**

YIELD (bu/acre)

		Belle Mina		Bay		Stuttgart		Middletown		Quincy		Griffin	
		AL	ab	AR	a	AR	ab	DE	a	FL	a	GA	ab
		Glass	rank	Hancock	rank	Bacon	rank	Uniatowski	rank	Jarnett/Blount	rank	Johnson	rank
1	AGS 2000	81.2	1	48.7	21	34.0	35	32.6	40	63.2	10	50.1	35
2	Pioneer Brand 26R61	65.8	20	51.4	20	23.7	40	49.7	38	43.3	24	64.6	18
3	Coker 9553	69.9	12	60.2	4	45.1	18	70.3	15	49.2	21	66.1	16
4	VA02W-555	63.8	28	56.9	10	49.0	10	81.7	2	60.6	13	81.9	2
5	MO011126	61.6	33	57.8	9	35.6	32	67.3	17	30.6	35	73.4	7
6	NC04-20814	63.2	29	38.1	37	42.3	23	77.4	6	36.2	34	45.8	37
7	LA01140D-70	75.0	5	51.5	19	37.6	30	49.8	37	62.0	11	62.2	23
8	TN802	75.6	4	58.4	5	45.9	16	71.4	13	56.8	17	57.8	28
9	TN501	64.8	23	58.1	7	44.7	19	61.2	24	57.5	16	68.6	12
10	W990002K1	54.0	39	36.5	38	28.5	37	64.2	21	60.0	14	62.7	22
11	W980031K1	68.1	14	42.9	31	24.1	39	50.1	36	30.0	36	68.9	10
12	W980031L1	54.1	38	34.6	40	25.3	38	66.5	20	38.4	30	48.3	36
13	GA031238-DH7-7E34	60.9	34	35.6	39	40.3	26	73.5	10	28.3	37	81.1	3
14	GA001170-7E26	68.0	16	48.0	22	34.4	34	55.8	32	68.9	3	69.3	9
15	GA001169-7E15	78.7	2	62.5	2	38.8	29	61.8	23	52.0	20	71.2	8
16	GA001492-7E9	62.5	30	43.7	28	33.6	36	58.9	26	63.7	9	74.1	6
17	MD01W233-07-1	70.3	11	51.9	17	39.9	27	74.8	9	67.5	6	57.8	28
18	MD00W53-07-1	72.0	7	47.1	25	52.2	7	71.2	14	60.7	12	59.2	27
19	G89270	58.8	36	46.0	26	53.8	5	58.8	28	58.5	15	63.8	19
20	G89283	69.3	13	55.5	13	60.1	3	48.8	39	77.2	1	57.2	30
21	G89267	62.5	30	53.3	15	57.7	4	77.9	4	72.7	2	50.9	34
22	B040798	68.1	14	57.9	8	48.6	11	69.3	16	39.3	28	79.1	4
23	D05-6189	65.3	21	40.6	33	47.5	13	56.8	30	48.0	22	62.0	25
24	D05*6441	58.4	37	45.3	27	46.7	14	56.0	31	27.8	38	61.5	26
25	FL01029-K1	72.9	6	61.0	3	52.2	7	72.0	12	37.0	31	62.1	24
26	Z03-0496	66.3	18	65.6	1	64.9	2	58.2	29	45.9	23	63.2	21
27	ARS03-5358	66.3	18	38.9	36	35.2	33	51.6	34	36.3	33	38.5	39
28	ARS05-0443	52.0	40	40.1	35	46.7	14	60.8	25	39.0	29	54.0	32
29	VA04W-90	66.7	17	56.6	12	66.0	1	77.7	5	67.7	5	68.6	12
30	VA05W-139	71.6	8	40.5	34	42.3	23	84.3	1	36.4	32	83.1	1
31	VA06W-392	64.5	24	47.5	24	50.6	9	73.3	11	16.8	40	66.3	15
32	VA05W-251	60.0	35	43.4	29	39.9	27	79.9	3	41.1	26	52.6	33
33	LA01034D-235-1	62.5	30	47.9	23	53.8	5	51.3	35	55.6	18	65.5	17
34	LA01029D-139-3	70.5	10	58.1	6	47.9	12	62.7	22	52.9	19	56.9	31
35	LA01139D-56-1	64.0	27	56.6	11	45.5	17	54.8	33	65.8	7	63.3	20
36	AR96052-4-3	71.3	9	52.2	16	43.1	20	76.1	7	42.8	25	67.1	14
37	AR98088-1-1	76.6	3	43.3	30	42.3	23	67.2	18	68.3	4	74.6	5
38	NC05-21090	64.9	22	54.1	14	43.1	20	58.8	27	39.6	27	68.9	10
39	NC05-20276	64.4	25	42.5	32	37.6	30	75.6	8	64.6	8	41.8	38
40	NC05-19684	64.4	25	51.5	18	43.1	20	66.7	19	25.6	39	31.0	40
LOCATION MEANS		66.3		49.6		43.6		64.4		49.7		62.4	
LSD (.05)		7		10.7		6.5		11.6		8.8		8.3	
CV %		7.6		10.6		9.2		10.9		11		8.2	
REPS		3		2		3		3		3		3	
Harvest Plot area (sq.ft.)		100		64.7		70		552.6		55		50	

YIELD (bu/acre)

		Plains		Ft. Branch		Lafayette		Owensville		Tipton		Independence	
		GA	ab	IN	ab	IN	rank	IN	a	IN	rank	KS	b
		Johnson	rank	Moreno	rank	Moreno	rank	Fogleman	rank	Brown	rank	Perry	rank
1	AGS 2000	47.3	24	75.6	16	84.1	38	41.5	36	99.1	27	41.9	3
2	Pioneer Brand 26R61	55.8	16	56.2	39	97.8	13	41.9	35	105.2	21	33.8	20
3	Coker 9553	45.3	26	80.0	9	89.5	29	61.0	4	134.1	6	30.7	29
4	VA02W-555	53.8	17	82.6	4	97.5	14	61.1	3	121.9	13	43.4	2
5	MO011126	31.9	35	72.3	19	102.5	4	60.8	6	140.2	2	34.1	19
6	NC04-20814	28.3	37	77.1	14	91.3	27	46.4	30	128.4	9	45.1	1
7	LA01140D-70	66.2	4	58.8	36	92.6	21	38.1	38	68.8	38	29.3	33
8	TN802	29.9	36	71.9	20	84.7	37	51.0	23	143.5	1	36.1	16
9	TN501	33.8	33	71.6	22	87.9	33	58.2	11	133.3	7	33.4	24
10	W990002K1	60.6	12	57.0	38	80.4	40	36.2	39	100.8	24	24.8	37
11	W980031K1	58.8	13	57.2	37	89.5	28	41.0	37	116.3	15	29.6	32
12	W980031L1	37.7	31	69.0	27	95.7	18	51.8	19	94.2	29	29.1	34
13	GA031238-DH7-7E34	79.3	2	68.8	28	92.9	20	44.4	33	102.4	23	36.4	12
14	GA001170-7E26	58.1	14	70.6	24	105.3	3	51.0	22	99.7	26	32.4	25
15	GA001169-7E15	68.8	3	77.4	13	88.3	32	48.2	28	88.1	32	23.6	39
16	GA001492-7E9	61.7	10	68.3	30	92.0	22	44.9	32	44.9	40	36.4	13
17	MD01W233-07-1	48.5	22	75.8	15	89.2	30	59.6	9	72.8	37	29.6	31
18	MD00W53-07-1	48.2	23	78.8	12	81.4	39	51.0	21	112.9	16	33.4	23
19	G89270	45.5	25	63.3	35	91.7	25	60.4	7	135.9	3	40.2	5
20	G89283	26.0	39	89.7	1	92.0	22	56.3	16	121.6	14	37.4	9
21	G89267	37.1	32	89.1	2	85.1	36	51.8	18	135.0	5	40.2	4
22	B040798	45.2	27	70.4	25	96.6	16	57.5	14	111.9	17	37.6	7
23	D05-6189	65.9	5	71.7	21	88.6	31	33.3	40	59.0	39	35.0	18
24	D05*6441	64.6	7	53.3	40	94.4	19	56.7	15	93.7	30	38.7	6
25	FL01029-K1	64.3	9	74.0	17	98.5	10	49.1	25	76.0	36	36.2	15
26	Z03-0496	27.8	38	82.1	5	107.8	1	60.3	8	135.8	4	31.4	28
27	ARS03-5358	32.7	34	69.9	26	87.1	35	51.6	20	86.6	33	24.7	38
28	ARS05-0443	44.7	28	73.5	18	91.8	24	60.9	5	76.3	35	32.3	26
29	VA04W-90	52.0	19	88.5	3	100.9	7	67.0	1	104.8	22	35.9	17
30	VA05W-139	51.9	20	79.8	10	99.7	9	50.5	24	126.3	11	33.4	22
31	VA06W-392	57.3	15	79.4	11	102.0	5	65.9	2	123.9	12	32.2	27
32	VA05W-251	40.6	29	81.7	6	97.9	12	57.8	12	108.4	19	37.4	8
33	LA01034D-235-1	65.5	6	63.5	34	98.4	11	42.4	34	93.1	31	23.3	40
34	LA01029D-139-3	64.6	7	80.1	8	101.7	6	46.9	29	79.9	34	36.4	11
35	LA01139D-56-1	81.2	1	81.2	7	107.3	2	48.6	27	100.1	25	27.8	36
36	AR96052-4-3	51.6	21	71.0	23	91.6	26	59.2	10	107.9	20	30.3	30
37	AR98088-1-1	61.7	10	65.7	33	99.7	8	48.7	26	126.4	10	33.6	21
38	NC05-21090	52.9	18	66.8	32	97.3	15	54.9	17	96.2	28	37.2	10
39	NC05-20276	39.1	30	68.3	29	87.8	34	45.2	31	130.5	8	36.3	14
40	NC05-19684	23.6	40	68.2	31	96.0	17	57.6	13	110.7	18	28.9	35
LOCATION MEANS		50.2		72.5		93.9		51.8		106.1		33.7	
LSD (.05)		9.8						15		18.7		5.89	
CV %		9.8		6.58				14.6		14.8		8.62	
REPS		2		2		1		2		2		2	
Harvest Plot area (sq.ft.)		50						58		32		50	

YIELD (bu/acre)

	Lexington		Baton Rouge		Winnsboro		Queenstown		Portageville		Cleveland		
	KY	ab	LA	ab	LA	ab	MD	ab	MO	a	MS	a	
	Van Sanford	rank	Harrison	rank	Harrison	rank	Costa	rank	McKendry	rank	Hancock	rank	
1	AGS 2000	67.9	30	79.1	19	74.6	2	62.4	26	39.2	10	50.6	11
2	Pioneer Brand 26R61	59.3	38	82.5	10	67.9	10	43.0	38	38.7	12	51.0	9
3	Coker 9553	75.8	17	83.7	9	69.4	6	67.3	21	34.5	19	49.1	14
4	VA02W-555	79.8	8	78.7	20	54.3	23	73.9	6	32.5	20	54.1	2
5	MO011126	79.5	10	49.9	35	44.0	30	58.1	34	42.6	3	45.5	23
6	NC04-20814	88.2	2	52.2	34	43.3	31	76.9	3	32.5	20	41.3	34
7	LA01140D-70	65.6	31	77.2	21	67.9	11	42.8	39	35.9	16	50.2	12
8	TN802	69.1	26	24.5	40	28.3	38	69.7	14	40.6	7	45.8	22
9	TN501	94.4	1	53.1	33	48.4	29	67.3	20	41.4	6	47.9	17
10	W990002K1	52.9	40	82.0	12	51.1	26	72.9	8	21.7	37	35.1	38
11	W980031K1	64.2	36	80.4	16	60.4	18	39.4	40	29.8	24	48.2	16
12	W980031L1	67.9	29	65.8	27	34.8	34	72.8	9	23.5	35	43.0	30
13	GA031238-DH7-7E34	68.1	28	81.0	14	71.7	3	62.8	25	22.1	36	47.4	20
14	GA001170-7E26	64.9	32	99.9	1	68.2	8	51.5	36	39.9	8	52.6	4
15	GA001169-7E15	64.7	33	79.4	18	71.3	4	61.8	27	23.8	34	33.2	40
16	GA001492-7E9	77.5	15	80.1	17	64.6	14	68.5	19	17.6	39	41.5	33
17	MD01W233-07-1	79.6	9	74.5	22	50.7	28	61.1	30	36.2	13	34.9	39
18	MD00W53-07-1	78.6	12	67.7	26	55.0	22	61.5	28	42.8	2	44.7	24
19	G89270	78.7	11	56.9	32	40.2	33	77.2	2	21.7	37	44.2	25
20	G89283	78.3	14	45.3	37	26.4	39	69.2	16	28.6	25	39.9	36
21	G89267	73.4	22	49.5	36	25.7	40	72.5	10	28.1	26	46.3	21
22	B040798	81.6	5	40.4	38	28.8	37	76.3	4	39.8	9	49.6	13
23	D05-6189	64.4	35	81.7	13	61.0	17	65.5	23	27.3	27	48.6	15
24	D05*6441	64.2	37	82.4	11	66.4	12	66.8	22	42.1	5	50.7	10
25	FL01029-K1	68.4	27	86.1	5	66.1	13	61.4	29	26.6	29	51.1	8
26	Z03-0496	75.5	19	40.4	39	29.1	36	69.1	17	35.7	17	47.7	18
27	ARS03-5358	77.2	16	68.9	24	62.7	15	46.7	37	26.5	30	42.3	32
28	ARS05-0443	73.0	23	62.8	30	30.9	35	60.7	31	36.1	14	37.1	37
29	VA04W-90	84.7	3	84.6	7	68.1	9	82.5	1	44.9	1	51.6	6
30	VA05W-139	73.8	21	80.7	15	50.9	27	69.5	15	24.5	33	53.5	3
31	VA06W-392	78.5	13	83.9	8	57.2	20	73.8	7	38.8	11	44.1	26
32	VA05W-251	81.0	6	85.5	6	70.4	5	75.4	5	25.5	32	51.7	5
33	LA01034D-235-1	58.7	39	95.3	3	57.7	19	54.1	35	17.3	40	47.5	19
34	LA01029D-139-3	69.2	25	89.6	4	68.4	7	58.9	33	25.9	31	42.6	31
35	LA01139D-56-1	84.6	4	97.8	2	75.1	1	59.2	32	42.3	4	64.1	1
36	AR96052-4-3	64.5	34	63.7	29	53.6	24	70.6	12	30.4	23	51.4	7
37	AR98088-1-1	74.5	20	68.5	25	61.3	16	72.2	11	36.0	15	43.4	29
38	NC05-21090	70.0	24	64.1	28	42.0	32	68.5	18	31.2	22	44.1	27
39	NC05-20276	75.7	18	69.4	23	57.0	21	69.9	13	27.3	27	43.5	28
40	NC05-19684	80.0	7	58.9	31	51.6	25	64.2	24	34.8	18	40.9	35
LOCATION MEANS		73.2		71.2		54.4		65.0		32.2		46.3	
LSD (.05)		7.3		11.1		7.6		10.1		12.8		10.9	
CV %		5.1		7.7		6.9		7.7		24.5		11.7	
REPS		2		2		2		2		3		2	
Harvest Plot area (sq.ft.)		40		70		70		47		52.5		63.4	

YIELD (bu/acre)

		Newton		Kinston		Wooster		Knoxville		Blacksburg		Warsaw	
		MS	a	NC	a	OH	b	TN	a	VA	ab	VA	ab
		Burgess	rank	Murphy	rank	Sneller	rank	West	rank	Griffey	rank	Griffey	rank
1	AGS 2000	80.2	5	56.9	14	68.5	29	72.7	24	75.1	14	74.0	17
2	Pioneer Brand 26R61	71.4	22	46.5	30	74.9	12	83.6	7	55.0	39	57.2	39
3	Coker 9553	72.5	16	58.8	10	71.2	19	82.2	9	73.0	17	81.2	5
4	VA02W-555	76.7	8	60.8	7	68.5	29	92.4	5	78.7	11	80.2	7
5	MO011126	76.4	9	46.1	32	72.5	17	85.3	6	72.5	19	79.0	12
6	NC04-20814	73.0	14	62.4	5	73.7	14	75.4	18	81.1	6	82.3	4
7	LA01140D-70	61.9	34	47.3	29	68.8	28	71.9	25	49.0	40	64.4	36
8	TN802	75.1	10	57.6	13	69.0	25	81.1	11	85.3	1	79.2	11
9	TN501	71.9	17	52.3	19	68.4	31	66.8	33	80.4	9	73.0	19
10	W990002K1	59.0	36	58.0	12	63.2	35	57.3	38	71.2	23	65.0	34
11	W980031K1	70.9	24	48.5	27	75.6	10	80.9	12	58.4	36	55.2	40
12	W980031L1	71.8	19	49.8	24	80.3	2	73.5	23	83.3	3	80.2	7
13	GA031238-DH7-7E34	73.8	12	43.4	35	79.1	4	95.9	3	58.0	37	72.8	20
14	GA001170-7E26	68.2	27	54.7	17	76.9	6	70.2	29	68.5	26	70.2	23
15	GA001169-7E15	71.9	18	52.5	18	64.9	33	69.0	30	65.2	32	69.9	24
16	GA001492-7E9	86.3	2	65.1	1	67.9	32	74.2	19	74.3	15	70.8	22
17	MD01W233-07-1	67.7	29	60.2	8	79.4	3	73.9	21	77.7	13	76.7	15
18	MD00W53-07-1	52.2	39	50.7	22	50.4	40	81.7	10	67.7	28	69.4	25
19	G89270	68.1	28	47.4	28	69.1	24	68.3	31	69.0	25	65.8	32
20	G89283	59.0	37	39.4	38	72.0	18	77.5	14	73.6	16	64.2	38
21	G89267	63.8	31	55.7	16	76.6	9	75.6	17	69.3	24	71.9	21
22	B040798	71.1	23	51.2	20	76.7	8	71.1	28	82.9	4	87.2	1
23	D05-6189	51.8	40	41.5	37	72.7	16	80.5	13	67.1	30	68.0	27
24	D05*6441	68.6	26	43.3	36	73.2	15	67.4	32	61.1	34	67.2	29
25	FL01029-K1	79.4	6	48.5	26	69.0	25	71.2	27	71.7	21	77.0	14
26	Z03-0496	63.6	32	35.0	40	68.9	27	76.8	15	80.6	8	68.0	26
27	ARS03-5358	70.1	25	46.3	31	60.8	38	62.8	35	68.3	27	67.3	28
28	ARS05-0443	57.7	38	39.1	39	63.5	34	52.7	39	56.9	38	65.0	33
29	VA04W-90	72.7	15	62.6	4	75.3	11	93.9	4	80.9	7	80.0	9
30	VA05W-139	82.6	3	65.1	2	70.4	20	98.8	1	79.7	10	86.1	3
31	VA06W-392	81.3	4	49.3	25	76.9	5	71.9	25	82.3	5	79.4	10
32	VA05W-251	62.9	33	59.4	9	74.2	13	83.0	8	84.5	2	87.2	1
33	LA01034D-235-1	61.0	35	44.1	34	51.7	39	61.8	36	60.3	35	64.4	36
34	LA01029D-139-3	88.9	1	58.4	11	62.1	36	74.1	20	71.8	20	73.6	18
35	LA01139D-56-1	71.5	21	49.9	23	69.8	22	97.0	2	72.5	18	66.2	30
36	AR96052-4-3	78.5	7	56.6	15	69.5	23	76.8	15	67.1	30	81.0	6
37	AR98088-1-1	65.5	30	45.6	33	81.7	1	64.9	34	67.2	29	76.3	16
38	NC05-21090	74.0	11	62.2	6	76.9	6	73.7	22	71.4	22	78.5	13
39	NC05-20276	71.5	20	50.9	21	69.9	21	51.9	40	78.5	12	64.5	35
40	NC05-19684	73.7	13	64.7	3	61.3	37	61.8	36	65.2	33	66.0	31
LOCATION MEANS		70.4		52.2		70.4		75.0		71.4		72.6	
LSD (.05)		14.7		14.8		10.8		13.9		8.79		6.32	
CV %		14.9		14		7.7		11.4		7.3		5.15	
REPS		4		2		3		3		2		2 *	
Harvest Plot area (sq.ft.)		65		55		50		43.75		45		45	

YIELD (bu/acre)

		Oconto	ENTRY MEANS		ENTRY MEANS		ENTRY MEANS		
		WI	ALL LOCATIONS		IN-REGION		CV <10%		
		Cisar			[a]		[b]		
	rank								
1	AGS 2000	81.2	10	63.3	19	60.3	20	65.8	17
2	Pioneer Brand 26R61	83.5	6	60.2	31	55.4	34	58.8	37
3	Coker 9553	70.3	31	67.6	5	64.7	5	69.0	7
4	VA02W-555	79.4	13	70.6	2	67.7	2	70.4	4
5	MO011126	74.0	20	63.7	15	58.5	24	60.9	32
6	NC04-20814	71.1	27	62.9	22	58.2	25	62.9	24
7	LA01140D-70	81.4	9	59.0	32	56.8	32	61.3	30
8	TN802	76.8	17	63.4	18	58.7	23	58.8	36
9	TN501	71.2	26	64.4	13	60.8	16	64.0	20
10	W990002K1	68.6	33	56.9	38	54.3	37	60.1	33
11	W980031K1	68.4	34	58.3	36	53.9	38	59.2	35
12	W980031L1	61.5	40	58.1	37	54.6	36	60.0	34
13	GA031238-DH7-7E34	71.1	27	63.6	17	60.5	19	68.6	9
14	GA001170-7E26	70.5	30	64.7	11	61.6	11	66.7	14
15	GA001169-7E15	69.6	32	62.3	24	61.1	15	67.7	12
16	GA001492-7E9	75.0	19	61.9	27	61.6	12	67.0	13
17	MD01W233-07-1	65.6	37	63.0	21	62.0	10	66.0	16
18	MD00W53-07-1	63.9	39	62.2	26	60.6	18	63.4	23
19	G89270	71.6	25	62.2	25	57.3	29	61.8	26
20	G89283	68.0	36	61.3	30	57.1	30	60.9	31
21	G89267	71.0	29	63.7	16	59.2	21	61.3	27
22	B040798	79.9	11	64.7	10	60.8	17	65.4	18
23	D05-6189	71.7	24	59.0	33	57.4	28	66.1	15
24	D05*6441	84.4	5	61.4	29	57.5	27	63.8	22
25	FL01029-K1	82.0	8	64.6	12	62.6	9	68.8	8
26	Z03-0496	78.8	15	63.1	20	57.8	26	61.3	29
27	ARS03-5358	72.0	23	55.6	40	53.0	39	57.9	38
28	ARS05-0443	86.5	3	55.8	39	52.2	40	57.0	39
29	VA04W-90	84.9	4	72.8	1	70.9	1	74.8	1
30	VA05W-139	79.0	14	68.6	4	65.3	4	70.0	5
31	VA06W-392	91.8	2	67.5	6	63.1	8	70.8	3
32	VA05W-251	93.1	1	67.0	7	63.2	6	69.4	6
33	LA01034D-235-1	73.9	21	58.8	34	56.5	33	62.8	25
34	LA01029D-139-3	83.5	6	65.0	9	63.1	7	67.8	11
35	LA01139D-56-1	76.4	18	68.9	3	67.1	3	71.7	2
36	AR96052-4-3	79.6	12	64.3	14	61.4	13	64.5	19
37	AR98088-1-1	78.1	16	65.7	8	61.2	14	68.5	10
38	NC05-21090	65.6	38	62.3	23	59.2	22	64.0	21
39	NC05-20276	72.9	22	61.5	28	57.0	31	61.3	28
40	NC05-19684	68.2	35	58.3	35	54.7	35	56.5	40
LOCATION MEANS		75.4		63.0		59.7		64.4	
LSD (.05)									
CV %									
REPS		1							
Harvest Plot area (sq.ft.)									

TEST WEIGHT (lbs/bu)

		Belle Mina AL Glass	Bay AR Hancock	Stuttgart AR Bacon	Middletown DE Uniatowski	Quincy FL Barnett/Blount
1	AGS 2000	57.5	52.1	50.6	61.0	52.2
2	Pioneer Brand 26R61	58.3	54.4	48.7	59.7	47.0
3	Coker 9553	58.1	54.1	50.8	64.1	53.1
4	VA02W-555	55.1	52.1	49.3	61.6	53.4
5	MO011126	56.6	54.1	51.5	62.7	43.2
6	NC04-20814	55.5	50.8	46.5	64.2	46.1
7	LA01140D-70	58.3	52.3	50.3	60.3	53.1
8	TN802	57.2	51.5	48.6	61.2	51.2
9	TN501	56.3	53.0	50.0	62.2	47.4
10	W990002K1	52.6	47.5	48.7	59.5	49.9
11	W980031K1	58.7	54.2	48.0	59.5	48.0
12	W980031L1	53.8	47.0	48.7	59.2	46.7
13	GA031238-DH7-7E34	54.3	47.2	46.8	61.6	47.0
14	GA001170-7E26	57.1	54.4	52.6	60.6	49.9
15	GA001169-7E15	58.8	54.7	54.7	61.4	49.6
16	GA001492-7E9	55.2	51.5	50.2	60.2	49.3
17	MD01W233-07-1	58.1	54.3	49.3	63.9	49.3
18	MD00W53-07-1	57.3	53.5	49.4	63.3	52.2
19	G89270	53.4	51.4	48.7	62.4	52.2
20	G89283	53.3	53.7	50.2	60.7	52.8
21	G89267	54.0	53.6	51.5	62.9	53.4
22	B040798	53.9	51.7	50.0	61.0	47.0
23	D05-6189	52.3	47.8	47.0	60.5	46.1
24	D05*6441	56.3	51.6	50.4	62.0	46.4
25	FL01029-K1	57.0	54.7	52.5	59.4	48.6
26	Z03-0496	55.6	54.7	53.0	62.2	49.0
27	ARS03-5358	57.9	53.8	48.0	58.9	49.3
28	ARS05-0443	50.8	51.8	51.1	59.8	49.3
29	VA04W-90	57.6	54.2	51.2	63.7	50.6
30	VA05W-139	54.3	51.6	47.7	61.3	45.4
31	VA06W-392	55.8	51.5	48.2	61.6	47.4
32	VA05W-251	54.6	49.6	46.0	63.9	45.4
33	LA01034D-235-1	53.9	49.8	48.8	58.3	50.2
34	LA01029D-139-3	57.1	54.5	53.2	60.2	49.3
35	LA01139D-56-1	56.5	53.0	50.5	60.7	50.6
36	AR96052-4-3	55.1	50.6	41.1	62.0	49.9
37	AR98088-1-1	59.1	53.8	53.0	64.6	49.9
38	NC05-21090	56.5	53.5	47.5	62.9	49.9
39	NC05-20276	57.3	52.9	48.1	60.3	50.9
40	NC05-19684	56.3	53.5	50.3	62.9	47.4
LOCATION MEANS		55.9	52.3	49.6	61.5	49.2

TEST WEIGHT (lbs/bu)

		Griffin GA Johnson	Plains GA Johnson	Ft. Branch IN Moreno	Lafayette IN Moreno	Owensville IN Fogleman
1	AGS 2000	54.5	51.3	51.4	61.2	47.4
2	Pioneer Brand 26R61	57.9	55.5	45.3	63.3	44.9
3	Coker 9553	56.8	55.9	50.5	66.5	53.1
4	VA02W-555	55.1	52.3	49.3	62.3	50.3
5	MO011126	57.3	51.1	52.3	64.7	52.9
6	NC04-20814	54.1	49.3	52.2	63.8	47.7
7	LA01140D-70	56.8	55.7	44.9	63.9	48.1
8	TN802	55.7	52.6	49.3	59.6	47.2
9	TN501	56.6	53.3	53.8	64.1	53.8
10	W990002K1	55.9	50.9	44.4	63.3	50.2
11	W980031K1	57.4	55.0	44.4	63.6	42.3
12	W980031L1	55.4	53.3	48.3	63.7	48.0
13	GA031238-DH7-7E34	55.3	56.2	48.9	61.8	49.9
14	GA001170-7E26	58.2	53.2	49.3	64.4	na
15	GA001169-7E15	55.5	55.6	54.4	63.3	52.6
16	GA001492-7E9	56.5	54.9	49.7	61.7	51.9
17	MD01W233-07-1	56.2	55.5	52.4	62.7	53.9
18	MD00W53-07-1	56.3	55.0	50.2	64.1	53.2
19	G89270	54.6	54.4	47.6	63.4	53.3
20	G89283	54.0	49.7	52.5	62.6	52.1
21	G89267	53.8	54.1	53.4	64.2	49.1
22	B040798	54.8	52.1	47.3	61.8	52.2
23	D05-6189	52.9	51.8	47.5	60.0	na
24	D05*6441	56.1	54.4	50.9	63.9	52.7
25	FL01029-K1	54.9	54.8	51.5	64.1	50.8
26	Z03-0496	55.6	48.4	51.6	63.6	50.1
27	ARS03-5358	53.0	53.8	52.3	59.4	54.1
28	ARS05-0443	51.2	49.6	50.4	62.2	53.3
29	VA04W-90	55.2	53.8	53.3	64.8	55.0
30	VA05W-139	55.6	53.3	50.0	63.3	51.0
31	VA06W-392	55.5	53.6	51.4	64.2	49.1
32	VA05W-251	51.8	50.9	50.5	63.1	49.7
33	LA01034D-235-1	55.0	55.5	43.2	61.9	46.1
34	LA01029D-139-3	54.4	55.4	53.3	62.8	50.0
35	LA01139D-56-1	55.8	53.0	50.8	63.8	49.5
36	AR96052-4-3	52.3	53.6	51.1	62.2	46.9
37	AR98088-1-1	55.9	55.2	54.0	63.9	51.4
38	NC05-21090	57.2	54.0	46.7	63.0	53.2
39	NC05-20276	54.1	52.9	53.5	61.7	50.3
40	NC05-19684	49.6	52.1	50.8	63.4	
	LOCATION MEANS	55.1	53.3	50.1	63.0	

TEST WEIGHT (lbs/bu)

	Tipton IN Brown	Independence KS Perry	Lexington KY Van Sanford	Baton Rouge LA Harrison	Winnsboro LA Harrison	
1	AGS 2000	61.7	57.9	55.4	59.1	58.4
2	Pioneer Brand 26R61	62.1	59.2	53.5	59.3	58.5
3	Coker 9553	61.0	57.4	56.3	59.1	59.1
4	VA02W-555	60.9	57.2	55.0	58.2	54.8
5	MO011126	60.8	57.7	55.3	55.2	54.5
6	NC04-20814	60.1	57.1	55.8	54.6	54.6
7	LA01140D-70	61.0	56.9	51.7	58.8	58.7
8	TN802	57.1	54.1	53.8	47.3	50.8
9	TN501	60.0	56.0	54.6	56.1	55.4
10	W990002K1	57.6	52.4	53.0	56.8	54.4
11	W980031K1	61.3	58.7	51.8	59.4	58.7
12	W980031L1	59.2	56.0	52.6	56.7	52.3
13	GA031238-DH7-7E34	56.8	57.7	53.2	57.7	56.2
14	GA001170-7E26	61.3	58.9	53.0	59.5	58.7
15	GA001169-7E15	62.2	60.2	55.0	58.5	58.4
16	GA001492-7E9	60.4	56.8	55.2	58.5	57.3
17	MD01W233-07-1	61.0	59.6	57.5	59.0	56.2
18	MD00W53-07-1	60.0	57.5	56.9	58.4	57.4
19	G89270	58.4	57.3	56.5	58.1	51.9
20	G89283	59.4	56.6	56.8	53.3	51.2
21	G89267	60.6	58.0	57.3	51.1	49.8
22	B040798	59.8	56.8	54.5	48.6	48.5
23	D05-6189	56.5	53.5	51.3	55.7	55.1
24	D05*6441	60.8	58.4	56.9	58.9	57.8
25	FL01029-K1	60.5	56.7	54.6	59.8	57.6
26	Z03-0496	60.0	56.1	53.9	53.4	51.0
27	ARS03-5358	61.2	59.5	55.8	57.8	57.7
28	ARS05-0443	58.1	56.4	52.3	54.8	47.0
29	VA04W-90	59.2	57.2	54.2	57.4	57.2
30	VA05W-139	59.8	58.1	47.9	57.8	54.2
31	VA06W-392	59.4	58.0	55.1	57.7	56.2
32	VA05W-251	57.8	56.2	54.6	55.5	55.9
33	LA01034D-235-1	58.0	54.9	48.8	56.8	55.5
34	LA01029D-139-3	61.0	57.2	55.0	59.3	57.7
35	LA01139D-56-1	61.0	57.5	53.7	58.6	58.7
36	AR96052-4-3	57.4	54.3	54.1	57.0	54.9
37	AR98088-1-1	60.1	58.7	58.5	58.7	57.6
38	NC05-21090	61.0	58.7	56.3	54.8	53.3
39	NC05-20276		58.2	54.5	56.5	57.5
40	NC05-19684	61.0	57.6	55.9	57.8	55.7
LOCATION MEANS		59.9	57.2	54.4	56.8	55.4

TEST WEIGHT (lbs/bu)

	Queenstown MD	Portageville MO	Cleveland MS	Newton MS	Kinston NC	
	Costa	McKendry	Hancock	Burgess	Murphy	
1	AGS 2000	52.7	52.1	52.7	56	59.9
2	Pioneer Brand 26R61	46.9	55.6	54.1	56	61.2
3	Coker 9553	54.4	55.2	53.8	56	62.1
4	VA02W-555	52.7	51.5	54.9	55	59.5
5	MO011126	55.4	54.7	51.5	56	61.6
6	NC04-20814	56.0	53.8	51.5	56	61.5
7	LA01140D-70	48.0	54.8	52.9	56	60.1
8	TN802	52.1	54.0	52.1	54	60.6
9	TN501	55.9	54.0	52.1	55	61.7
10	W990002K1	52.9	53.4	46.5	53	59.6
11	W980031K1	48.6	53.9	53.0	56	60.9
12	W980031L1	53.3	52.9	48.5	55	60.2
13	GA031238-DH7-7E34	52.9	53.4	50.0	55	59.6
14	GA001170-7E26	53.4	54.9	53.3	57	60.3
15	GA001169-7E15	54.7	54.8	47.6	55	60.2
16	GA001492-7E9	54.0	53.5	50.2	56	60.2
17	MD01W233-07-1	56.3	55.7	48.4	56	61.9
18	MD00W53-07-1	55.7	56.7	53.5	56	60.7
19	G89270	55.7	52.7	50.5	55	61.1
20	G89283	54.3	52.5	49.6	55	61.0
21	G89267	55.6	53.7	51.2	57	61.8
22	B040798	52.2	52.2	50.6	53	60.4
23	D05-6189	51.5	52.2	50.3	53	56.8
24	D05*6441	54.2	54.9	52.0	56	59.3
25	FL01029-K1	53.8	55.3	52.4	56	58.9
26	Z03-0496	54.2	55.2	51.8	55	61.0
27	ARS03-5358	51.5	54.5	52.0	56	60.8
28	ARS05-0443	53.1	52.0	47.9	51	58.5
29	VA04W-90	56.9	56.1	52.7	56	61.2
30	VA05W-139	53.4	53.3	52.6	56	61.2
31	VA06W-392	56.3	53.1	50.5	56	60.4
32	VA05W-251	55.2	52.3	52.1	55	59.7
33	LA01034D-235-1	45.8	52.2	50.6	53	57.7
34	LA01029D-139-3	55.4	52.6	51.2	56	60.2
35	LA01139D-56-1	54.0	55.5	55.6	55	59.7
36	AR96052-4-3	52.7	53.2	51.5	54	59.6
37	AR98088-1-1	56.0	55.6	52.3	56	61.4
38	NC05-21090	55.2	55.1	52.1	56	62.6
39	NC05-20276	55.7	55.1	53.2	56	61.6
40	NC05-19684	55.6	54.6	51.2	56	62.7
LOCATION MEANS		53.6	54.0	51.5	55.3	60.5

TEST WEIGHT (lbs/bu)

		Wooster OH Sneller	Knoxville TN West	Blacksburg VA Griffey	Warsaw VA Griffey	Oconto WI Cisar
1	AGS 2000	61.0	54.2	57.6	58.0	59.6
2	Pioneer Brand 26R61	63.0	55.6	58.8	57.1	59.6
3	Coker 9553	63.0	55.3	61.1	59.5	59.0
4	VA02W-555	61.2	52.9	57.2	56.4	58.4
5	MO011126	63.0	53.7	58.9	58.7	59.5
6	NC04-20814	61.3	53.2	58.0	57.6	59.0
7	LA01140D-70	61.9	54.3	57.0	57.7	59.2
8	TN802	60.6	53.6	57.0	57.0	58.0
9	TN501	60.7	53.5	58.9	57.7	59.0
10	W990002K1	60.0	53.9	57.1	57.8	58.1
11	W980031K1	62.8	57.3	58.7	57.2	59.5
12	W980031L1	63.0	53.9	58.2	58.2	58.3
13	GA031238-DH7-7E34	60.8	54.9	57.4	57.6	59.0
14	GA001170-7E26	62.2	54.5	58.3	58.0	60.5
15	GA001169-7E15	61.3	50.9	57.7	28.2	59.9
16	GA001492-7E9	59.6	48.5	56.9	56.0	58.8
17	MD01W233-07-1	63.0	54.5	59.3	58.7	59.8
18	MD00W53-07-1	62.5	52.9	59.6	58.8	57.6
19	G89270	58.8	54.3	55.3	55.0	57.1
20	G89283	59.4	54.2	56.9	54.9	58.2
21	G89267	62.1	53.9	56.9	55.5	58.2
22	B040798	59.7	51.2	55.3	55.7	57.8
23	D05-6189	58.5	50.6	54.5	55.8	57.6
24	D05*6441	60.9	53.1	57.3	57.6	59.7
25	FL01029-K1	61.3	54.0	59.0	58.7	60.3
26	Z03-0496	61.0	53.7	58.6	56.6	58.6
27	ARS03-5358	59.7	54.1	58.7	57.3	55.0
28	ARS05-0443	58.0	47.7	54.6	54.6	58.6
29	VA04W-90	62.0	55.5	58.7	59.1	58.8
30	VA05W-139	60.6	54.5	57.6	57.7	59.5
31	VA06W-392	61.1	54.8	56.5	58.8	58.8
32	VA05W-251	60.4	55.1	56.4	57.2	58.0
33	LA01034D-235-1	58.6	51.3	53.9	55.1	57.4
34	LA01029D-139-3	59.9	54.5	57.7	57.5	56.6
35	LA01139D-56-1	62.3	54.9	59.0	57.4	59.0
36	AR96052-4-3	60.6	52.9	55.8	56.8	59.3
37	AR98088-1-1	62.5	54.3	59.0	57.2	58.6
38	NC05-21090	62.0	53.0	58.8	57.3	60.0
39	NC05-20276	61.2	54.5	59.0	57.6	59.3
40	NC05-19684	58.4	53.0	58.3	58.2	60.2
LOCATION MEANS		61.0	53.6	57.6	56.5	58.7

TEST WEIGHT (lbs/bu)

ENTRY MEANS ALL LOCATIONS

		rank
1	AGS 2000	55.8 16
2	Pioneer Brand 26R61	55.8 17
3	Coker 9553	57.4 1
4	VA02W-555	55.5 23
5	MO011126	56.1 9
6	NC04-20814	55.2 27
7	LA01140D-70	55.7 19
8	TN802	54.2 35
9	TN501	56.0 12
10	W990002K1	54.0 36
11	W980031K1	55.5 22
12	W980031L1	54.5 33
13	GA031238-DH7-7E34	54.8 31
14	GA001170-7E26	56.8 5
15	GA001169-7E15	55.4 24
16	GA001492-7E9	55.3 26
17	MD01W233-07-1	56.9 3
18	MD00W53-07-1	56.7 6
19	G89270	55.2 28
20	G89283	55.0 30
21	G89267	55.7 18
22	B040798	53.9 37
23	D05-6189	53.3 40
24	D05*6441	56.1 10
25	FL01029-K1	56.3 7
26	Z03-0496	55.4 25
27	ARS03-5358	55.7 20
28	ARS05-0443	53.4 38
29	VA04W-90	56.9 4
30	VA05W-139	55.1 29
31	VA06W-392	55.6 21
32	VA05W-251	54.7 32
33	LA01034D-235-1	53.3 39
34	LA01029D-139-3	56.1 11
35	LA01139D-56-1	56.2 8
36	AR96052-4-3	54.3 34
37	AR98088-1-1	57.1 2
38	NC05-21090	56.0 13
39	NC05-20276	55.9 15
40	NC05-19684	55.9 14
LOCATION MEANS		55.5

HEADING DATE (Julian)

		Belle Mina	Bay	Stuttgart	Quincy	Griffin
		AL	AR	AR	FL	GA
		Glass	Hancock	Bacon	Barnett/Blount	Johnson
1	AGS 2000	103	105.0	104	95	99
2	Pioneer Brand 26R61	105	109.5	106	105	101
3	Coker 9553	99	105.0	104	100	98
4	VA02W-555	103	108.5	104	99	100
5	MO011126	107	112.5	106	118	112
6	NC04-20814	105	110.0	104	118	112
7	LA01140D-70	103	106.0	104	102	98
8	TN802	105	109.5	104	99	108
9	TN501	109	115.0	110	101	108
10	W990002K1	103	105.5	104	93	99
11	W980031K1	105	109.5	106	118	99
12	W980031L1	103	109.0	106	112	100
13	GA031238-DH7-7E34	105	109.5	106	118	99
14	GA001170-7E26	104	109.0	110	91	99
15	GA001169-7E15	107	109.0	110	99	99
16	GA001492-7E9	107	109.5	106	99	102
17	MD01W233-07-1	110	115.0	110	106	107
18	MD00W53-07-1	104	109.0	106	95	103
19	G89270	108	111.5	106	96	110
20	G89283	109	113.5	112	96	114
21	G89267	109	113.5	110	99	115
22	B040798	107	110.5	106	99	109
23	D05-6189	99	103.0	106	104	98
24	D05*6441	99	100.0	104	118	98
25	FL01029-K1	105	105.0	104	118	100
26	Z03-0496	107	110.0	106	112	112
27	ARS03-5358	110	112.5	106	118	108
28	ARS05-0443	114	118.0	110	118	116
29	VA04W-90	102	109.5	112	99	99
30	VA05W-139	107	111.5	106	118	105
31	VA06W-392	107	111.0	110	118	102
32	VA05W-251	103	109.0	100	107	99
33	LA01034D-235-1	101	106.5	110	102	98
34	LA01029D-139-3	107	109.5	106	108	105
35	LA01139D-56-1	99	105.0	110	96	98
36	AR96052-4-3	101	108.0	104	101	99
37	AR98088-1-1	103	109.0	104	100	97
38	NC05-21090	107	109.0	104	106	105
39	NC05-20276	105	110.5	104	93	104
40	NC05-19684	107	109.0	106	118	105
LOCATION MEANS		105.1	109.3	106.4	105.3	103.5

HEADING DATE (Julian)

		Plains GA Johnson	Lafayette IN Moreno	Tipton IN Brown	Lexington KY Van Sanford	Baton Rouge LA Harrison
1	AGS 2000	100	140	142.5	130.5	78.0
2	Pioneer Brand 26R61	101	138	142.5	128.0	81.5
3	Coker 9553	101	138	139.0	125.5	90.5
4	VA02W-555	108	138	141.5	129.5	97.5
5	MO011126	116	136	142.0	128.5	
6	NC04-20814	115	136	141.0	127.5	
7	LA01140D-70	98	136	143.0	126.5	80.0
8	TN802	116	134	140.5	126.5	
9	TN501	116	140	145.0	128.0	
10	W990002K1	97	138	142.0	130.5	78.5
11	W980031K1	100	138	143.0	128.0	83.0
12	W980031L1	107	140	142.0	130.0	95.0
13	GA031238-DH7-7E34	106	140	146.5	132.5	94.5
14	GA001170-7E26	102	136	145.0	129.5	83.0
15	GA001169-7E15	102	140	147.0	135.5	78.0
16	GA001492-7E9	101	136		133.0	80.0
17	MD01W233-07-1	108	140		133.5	94.5
18	MD00W53-07-1	99	134	142.0	127.0	83.0
19	G89270	114	138	141.0	128.0	106.0
20	G89283	116	138	143.0	130.5	
21	G89267	117	138	142.0	130.5	
22	B040798	115	132	142.0	127.0	
23	D05-6189	97	136		128.5	72.5
24	D05*6441	100	134	143.0	126.5	80.0
25	FL01029-K1	98	138	146.0	130.5	76.5
26	Z03-0496	117	131	139.0	125.5	
27	ARS03-5358	107	140		134.0	80.0
28	ARS05-0443	116	138	146.0	133.0	105.0
29	VA04W-90	100	136	143.0	128.0	83.5
30	VA05W-139	117	140	143.0	132.5	94.0
31	VA06W-392	106	138	143.0	133.5	80.0
32	VA05W-251	100	140	142.5	131.0	79.0
33	LA01034D-235-1	99	138	142.0	128.0	81.5
34	LA01029D-139-3	99	140		133.0	78.5
35	LA01139D-56-1	97	136	142.0	126.5	80.0
36	AR96052-4-3	104	136	142.0	128.0	97.5
37	AR98088-1-1	99	140		127.5	80.0
38	NC05-21090	116	136	142.0	129.5	
39	NC05-20276	115	138	140.5	128.5	
40	NC05-19684	116	134	142.0	129.5	104.0
LOCATION MEANS		106.5	137.3		129.5	

HEADING DATE (Julian)

		Winnsboro	Queenstown	Portageville	Cleveland	Kinston
		LA	MD	MO	MS	NC
		Harrison	Costa	McKendry	Hancock	Murphy
1	AGS 2000	90.0	128.5	120.0	106.0	106.0
2	Pioneer Brand 26R61	92.0	130.5	119.3	109.0	105.5
3	Coker 9553	92.0	127.5	119.3	108.0	103.0
4	VA02W-555	95.5	128.5	120.7	108.5	105.5
5	MO011126	102.0	131.0	121.0	112.0	112.5
6	NC04-20814	105.0	128.5	120.0	113.0	105.5
7	LA01140D-70	86.5	129.5	120.0	104.5	106.0
8	TN802	103.5	129.0	120.7	111.0	112.0
9	TN501	102.0	131.0	122.0	113.0	117.0
10	W990002K1	90.0	127.0	119.7	109.0	105.5
11	W980031K1	93.5	130.5	119.3	109.0	104.5
12	W980031L1	95.0	128.5	121.0	109.0	105.0
13	GA031238-DH7-7E34	93.5	131.0	122.0	109.0	104.5
14	GA001170-7E26	90.5	130.0	120.3	109.0	103.5
15	GA001169-7E15	94.0	131.5	127.0	111.0	106.5
16	GA001492-7E9	92.5	130.0	122.0	109.0	105.5
17	MD01W233-07-1	99.0	132.0	124.7	113.0	110.5
18	MD00W53-07-1	94.0	129.0	119.7	111.0	106.5
19	G89270	105.0	130.5	121.7	112.0	111.5
20	G89283	107.5	130.0	121.7	113.0	116.0
21	G89267	110.0	130.0	121.0	113.0	110.0
22	B040798	103.5	128.0	121.7	111.0	113.0
23	D05-6189	86.0	126.5	119.3	104.0	105.5
24	D05*6441	86.0	125.5	118.7	106.0	107.5
25	FL01029-K1	88.5	129.5	120.0	106.5	104.5
26	Z03-0496	103.5	126.5	119.7	111.0	113.0
27	ARS03-5358	98.5	134.0	124.3	113.0	112.5
28	ARS05-0443	105.0	132.0	126.0	115.0	116.0
29	VA04W-90	90.0	129.0	120.7	107.5	104.0
30	VA05W-139	98.0	131.0	122.0	111.0	106.0
31	VA06W-392	95.0	130.0	121.7	111.0	106.5
32	VA05W-251	90.0	130.0	120.7	109.0	104.5
33	LA01034D-235-1	86.0	129.5	121.7	107.5	104.5
34	LA01029D-139-3	93.5	131.0	121.3	111.0	106.0
35	LA01139D-56-1	85.0	128.0	118.3	103.5	104.5
36	AR96052-4-3	94.5	129.5	120.7	107.5	108.0
37	AR98088-1-1	91.0	129.5	120.3	109.0	104.0
38	NC05-21090	101.5	130.0	120.0	111.0	110.5
39	NC05-20276	101.0	130.0	121.3	111.0	110.5
40	NC05-19684	100.0	130.0	120.7	111.0	110.5
	LOCATION MEANS	95.7	129.6	121.1	109.7	107.9

HEADING DATE (Julian)

		Wooster	Knoxville	Blacksburg	Warsaw	ENTRY MEANS	
		OH	TN	VA	VA	ALL LOCATIONS	
		Sneller	West	Griffey	Griffey		rank
1	AGS 2000	143	118	121.5	117.0	113.0	8
2	Pioneer Brand 26R61	141	118	123.5	118.0	114.4	17
3	Coker 9553	138	117	122.0	117.0	112.8	5
4	VA02W-555	140	117	122.5	118.0	115.0	19
5	MO011126	142	122	125.0	119.5	120.3	37
6	NC04-20814	141	119	123.5	118.5	119.0	35
7	LA01140D-70	141	119	124.0	117.5	112.9	6
8	TN802	141	118	123.5	118.0	117.7	28
9	TN501	142	121	126.0	119.5	120.3	38
10	W990002K1	142	117	119.5	117.0	112.5	4
11	W980031K1	141	118	122.5	119.0	115.1	20
12	W980031L1	141	118	122.0	117.0	115.8	21
13	GA031238-DH7-7E34	143	119	124.5	118.5	116.9	24
14	GA001170-7E26	141	118	123.0	118.5	113.8	12
15	GA001169-7E15	146	122	121.5	119.0	116.1	22
16	GA001492-7E9	142	120	121.5	118.5	113.0	9
17	MD01W233-07-1	143	117	126.5	119.0	117.2	25
18	MD00W53-07-1	140	121	121.5	117.0	113.8	11
19	G89270	141	118	124.0	119.0	118.0	29
20	G89283	142	119	125.5	119.5	120.3	39
21	G89267	141	120	124.5	119.0	120.1	36
22	B040798	140	120	124.5	119.0	118.2	30
23	D05-6189	142	118	123.5	117.5	110.4	1
24	D05*6441	141	118	122.0	118.0	112.9	7
25	FL01029-K1	142	119	122.5	117.0	114.2	15
26	Z03-0496	138	119	121.5	118.0	118.3	33
27	ARS03-5358	147	122	125.0	120.5	117.4	26
28	ARS05-0443	144	124	127.0	121.0	122.3	40
29	VA04W-90	142	119	124.5	118.5	114.1	13
30	VA05W-139	142	121	124.0	118.5	118.3	32
31	VA06W-392	142	119	124.0	117.0	116.6	23
32	VA05W-251	143	119	123.5	118.0	114.1	14
33	LA01034D-235-1	143	119	124.0	117.0	113.6	10
34	LA01029D-139-3	147	119	123.5	119.0	114.3	16
35	LA01139D-56-1	142	118	122.0	117.5	112.0	3
36	AR96052-4-3	142	119	122.5	117.5	114.8	18
37	AR98088-1-1	141	119	123.5	117.5	111.9	2
38	NC05-21090	141	118	123.0	119.0	118.3	31
39	NC05-20276	142	119	121.5	119.0	117.4	27
40	NC05-19684	145	119	123.5	118.5	118.4	34
LOCATION MEANS		142.0	119.1	123.3	118.3	115.9	

HEIGHT (inches)

		Belle Mina	Bay	Stuttgart	Middletown	Quincy
		AL	AR	AR	DE	FL
		Glass	Hancock	Bacon	Uniatowski	Barnett/Blount
1	AGS 2000	40	39.5	30	34.3	37.3
2	Pioneer Brand 26R61	42	44.0	33	36.0	38.0
3	Coker 9553	37	40.0	32	33.7	36.0
4	VA02W-555	34	37.5	26	34.3	41.3
5	MO011126	40	42.0	36	34.0	36.7
6	NC04-20814	38	39.0	25	34.3	41.3
7	LA01140D-70	43	41.5	34	37.0	37.0
8	TN802	41	44.5	35	35.7	37.0
9	TN501	43	43.5	34	36.3	36.7
10	W990002K1	34	35.5	26	30.0	36.0
11	W980031K1	42	41.0	34	35.7	37.7
12	W980031L1	39	40.5	35	39.7	40.3
13	GA031238-DH7-7E34	36	36.5	27	32.3	37.7
14	GA001170-7E26	38	39.5	30	34.7	36.0
15	GA001169-7E15	37	38.5	29	34.3	35.0
16	GA001492-7E9	37	40.0	30	33.0	36.0
17	MD01W233-07-1	39	41.0	35	32.0	35.7
18	MD00W53-07-1	38	39.0	27	32.7	37.7
19	G89270	40	44.0	39	38.3	35.0
20	G89283	38	39.5	34	32.7	34.7
21	G89267	38	40.5	34	34.7	41.3
22	B040798	40	44.0	34	36.0	35.7
23	D05-6189	40	39.5	34	35.0	36.7
24	D05*6441	35	39.0	33	35.7	37.7
25	FL01029-K1	37	37.5	34	33.7	36.3
26	Z03-0496	39	40.0	32	31.3	35.0
27	ARS03-5358	48	43.0	30	42.3	35.0
28	ARS05-0443	37	39.5	32	34.3	35.0
29	VA04W-90	37	40.5	31	34.0	39.3
30	VA05W-139	36	39.5	30	33.0	39.0
31	VA06W-392	36	38.5	31	33.7	35.7
32	VA05W-251	35	38.5	34	32.3	35.7
33	LA01034D-235-1	37	38.5	32	30.7	38.3
34	LA01029D-139-3	39	40.0	34	35.7	36.0
35	LA01139D-56-1	35	38.0	30	33.7	36.0
36	AR96052-4-3	40	40.0	33	33.0	36.0
37	AR98088-1-1	38	41.5	30	36.0	39.3
38	NC05-21090	38	39.0	31	33.0	39.0
39	NC05-20276	36	38.0	31	32.7	32.0
40	NC05-19684	35	37.0	29	31.3	37.3
LOCATION MEANS		38.3	40.0	31.8	34.3	37.0

HEIGHT (inches)

		Griffin GA Johnson	Plains GA Johnson	Lafayette IN Moreno	Owensville IN Fogleman	Tipton IN Brown
1	AGS 2000	36	34	41	33.9	40
2	Pioneer Brand 26R61	36	36	42	38.8	40
3	Coker 9553	35	31	38	37.0	40
4	VA02W-555	30	31	35	33.5	33
5	MO011126	33	33	38	34.6	36
6	NC04-20814	31	30	36	30.3	36
7	LA01140D-70	39	38	42	36.8	40
8	TN802	39	34	41	36.0	40
9	TN501	41	37	41	38.0	40
10	W990002K1	31	29	32	27.8	32
11	W980031K1	38	34	42	37.8	39
12	W980031L1	36	36	37	34.1	39
13	GA031238-DH7-7E34	34	31	33	27.0	30
14	GA001170-7E26	34	30	40	35.8	32
15	GA001169-7E15	32	32	37	34.3	32
16	GA001492-7E9	33	30	36	33.9	35
17	MD01W233-07-1	34	30	35	34.4	32
18	MD00W53-07-1	35	29	35	30.3	36
19	G89270	38	33	38	38.2	38
20	G89283	34	30	36	33.9	38
21	G89267	34	30	35	33.1	35
22	B040798	39	34	43	36.8	40
23	D05-6189	34	33	39	32.1	37
24	D05*6441	31	30	38	36.4	38
25	FL01029-K1	33	31	39	32.3	43
26	Z03-0496	34	33	38	33.3	42
27	ARS03-5358	41	36	46	45.7	46
28	ARS05-0443	31	30	36	34.4	34
29	VA04W-90	35	32	37	35.6	29
30	VA05W-139	33	32	35	32.3	30
31	VA06W-392	36	31	35	35.8	32
32	VA05W-251	32	30	36	31.5	32
33	LA01034D-235-1	32	32	35	31.9	33
34	LA01029D-139-3	37	36	40	35.4	38
35	LA01139D-56-1	31	32	39	33.7	35
36	AR96052-4-3	35	34	39	34.6	36
37	AR98088-1-1	34	31	40	34.8	39
38	NC05-21090	35	31	36	35.0	34
39	NC05-20276	32	29	32	30.1	33
40	NC05-19684	32	29	34	30.9	32
LOCATION MEANS		34.5	32.1	37.7	34.3	36.2

HEIGHT (inches)

	Lexington	Baton Rouge	Winnsboro	Queenstown	Portageville	
	KY	LA	LA	MD	MO	
	Van Sanford	Harrison	Harrison	Costa	McKendry	
1	AGS 2000	38.5	42.0	40.5	37.0	29
2	Pioneer Brand 26R61	42.5	42.5	39.5	39.5	34
3	Coker 9553	39.5	40.5	40.0	34.5	33
4	VA02W-555	36.0	37.5	34.5	35.5	28
5	MO011126	38.0	39.5	38.5	36.0	32
6	NC04-20814	37.5	37.5	39.5	35.0	29
7	LA01140D-70	42.5	45.0	41.5	40.0	33
8	TN802	40.0	38.0	37.5	35.5	33
9	TN501	41.0	44.5	47.5	38.5	33
10	W990002K1	33.0	36.5	35.0	31.0	27
11	W980031K1	40.0	42.5	39.5	38.0	34
12	W980031L1	39.5	40.5	39.5	33.0	31
13	GA031238-DH7-7E34	33.0	36.5	34.5	33.5	28
14	GA001170-7E26	37.5	38.5	37.5	35.5	30
15	GA001169-7E15	37.0	38.0	37.0	36.0	27
16	GA001492-7E9	36.5	41.0	39.5	34.5	29
17	MD01W233-07-1	36.5	35.5	38.5	33.5	29
18	MD00W53-07-1	39.0	38.0	36.0	33.5	31
19	G89270	40.5	41.5	40.5	39.0	32
20	G89283	40.0	39.0	39.5	37.0	32
21	G89267	38.0	37.5	40.0	35.0	31
22	B040798	42.0	39.5	41.0	34.5	34
23	D05-6189	38.0	41.0	43.5	41.0	32
24	D05*6441	38.0	39.5	38.5	35.5	32
25	FL01029-K1	36.5	40.5	38.0	36.5	29
26	Z03-0496	37.0	38.0	38.5	34.5	29
27	ARS03-5358	47.0	45.0	44.5	40.5	37
28	ARS05-0443	36.5	38.5	36.5	35.0	31
29	VA04W-90	38.0	39.5	35.5	35.5	32
30	VA05W-139	33.5	37.5	38.0	34.0	28
31	VA06W-392	37.5	38.0	38.0	33.5	30
32	VA05W-251	34.5	37.5	35.0	34.0	30
33	LA01034D-235-1	36.0	39.5	33.0	32.0	27
34	LA01029D-139-3	40.0	42.0	39.0	38.5	31
35	LA01139D-56-1	35.0	39.5	35.5	32.0	31
36	AR96052-4-3	39.0	40.0	37.5	37.0	29
37	AR98088-1-1	41.0	41.5	39.0	37.0	31
38	NC05-21090	35.5	37.5	38.0	34.0	31
39	NC05-20276	37.5	36.5	38.0	32.5	27
40	NC05-19684	36.0	35.5	36.5	30.5	29
LOCATION MEANS	38.1	39.5	38.5	35.5	30.6	

HEIGHT (inches)

		Cleveland MS Hancock	Newton MS Burgess	Wooster OH Sneller	Blacksburg VA Griffey	Warsaw VA Griffey
1	AGS 2000	39.0	35	37	41.0	33.5
2	Pioneer Brand 26R61	38.5	39	41	44.5	36.0
3	Coker 9553	36.5	36	39	41.5	33.5
4	VA02W-555	33.5	31	35	36.5	30.0
5	MO011126	37.5	38	39	43.5	35.0
6	NC04-20814	36.5	40	38	39.5	32.0
7	LA01140D-70	42.0	37	39	43.0	35.0
8	TN802	41.5	39	41	43.5	37.5
9	TN501	40.5	43	43	44.5	37.0
10	W990002K1	33.0	32	33	35.5	28.5
11	W980031K1	39.0	37	41	42.5	35.0
12	W980031L1	39.0	39	40	42.0	34.0
13	GA031238-DH7-7E34	33.5	31	33	37.0	29.5
14	GA001170-7E26	37.0	35	35	40.5	32.0
15	GA001169-7E15	38.0	33	35	39.5	31.0
16	GA001492-7E9	39.5	38	36	40.5	31.5
17	MD01W233-07-1	34.5	36	36	40.0	31.0
18	MD00W53-07-1	36.5	34	38	39.0	32.5
19	G89270	42.0	41	39	42.0	38.0
20	G89283	38.5	41	36	41.0	32.0
21	G89267	38.0	38	37	41.0	34.5
22	B040798	42.5	40	39	43.0	37.5
23	D05-6189	37.5	40	38	40.5	33.0
24	D05*6441	39.0	37	38	40.0	32.0
25	FL01029-K1	36.5	35	33	38.5	30.0
26	Z03-0496	37.5	41	36	40.0	32.0
27	ARS03-5358	42.5	44	42	47.0	42.5
28	ARS05-0443	36.5	37	35	38.5	31.0
29	VA04W-90	36.5	37	35	40.0	34.0
30	VA05W-139	37.5	36	33	37.5	31.0
31	VA06W-392	36.0	37	35	38.0	30.5
32	VA05W-251	37.0	36	35	36.5	30.5
33	LA01034D-235-1	37.0	35	33	39.0	28.5
34	LA01029D-139-3	38.0	37	34	40.5	33.5
35	LA01139D-56-1	34.5	34	38	39.5	30.5
36	AR96052-4-3	36.0	38	37	40.0	32.5
37	AR98088-1-1	37.5	37	41	41.0	33.5
38	NC05-21090	39.0	40	35	38.0	30.0
39	NC05-20276	36.5	37	35	38.0	30.5
40	NC05-19684	36.0	36	33	36.5	31.5
LOCATION MEANS		37.7	37.2	36.9	40.3	32.8

HEIGHT (inches)

ENTRY MEANS ALL LOCATIONS

		rank
1	AGS 2000	36.9 14
2	Pioneer Brand 26R61	39.1 4
3	Coker 9553	36.7 15
4	VA02W-555	33.7 37
5	MO011126	37.0 13
6	NC04-20814	35.3 26
7	LA01140D-70	39.3 3
8	TN802	38.5 7
9	TN501	40.1 2
10	W990002K1	31.9 40
11	W980031K1	38.5 8
12	W980031L1	37.7 9
13	GA031238-DH7-7E34	32.7 39
14	GA001170-7E26	35.4 25
15	GA001169-7E15	34.6 32
16	GA001492-7E9	35.5 23
17	MD01W233-07-1	34.9 28
18	MD00W53-07-1	34.9 30
19	G89270	38.9 5
20	G89283	36.3 16
21	G89267	36.3 18
22	B040798	38.8 6
23	D05-6189	37.2 10
24	D05*6441	36.2 19
25	FL01029-K1	35.5 22
26	Z03-0496	36.1 20
27	ARS03-5358	42.2 1
28	ARS05-0443	34.9 27
29	VA04W-90	35.7 21
30	VA05W-139	34.3 33
31	VA06W-392	34.9 29
32	VA05W-251	34.1 34
33	LA01034D-235-1	34.0 35
34	LA01029D-139-3	37.2 11
35	LA01139D-56-1	34.6 31
36	AR96052-4-3	36.3 17
37	AR98088-1-1	37.2 12
38	NC05-21090	35.5 24
39	NC05-20276	33.7 36
40	NC05-19684	33.4 38
LOCATION MEANS		36.2

LODGING

	Belle Mina	Stuttgart	Middletown	Quincy	Lafayette	
	AL	AR	DE	FL	IN	
	Glass	Bacon	Uniatowski	Barnett/Blount	Moreno	
	0-9	0-9	0-9	0-9	0-9	
1	AGS 2000	0	1	1	4.0	1
2	Pioneer Brand 26R61	0	0	1	4.7	1
3	Coker 9553	0	5	1	6.0	1
4	VA02W-555	0	1	2	3.3	1
5	MO011126	0	1	2	1.3	1
6	NC04-20814	1	6	2	4.7	6
7	LA01140D-70	0	2	1	1.0	1
8	TN802	2	5	3	2.7	8
9	TN501	1	4	1	2.0	3
10	W990002K1	1	5	1	4.3	1
11	W980031K1	0	0	1	2.7	1
12	W980031L1	1	2	1	5.3	1
13	GA031238-DH7-7E34	0	2	1	0.3	1
14	GA001170-7E26	0	2	1	2.7	1
15	GA001169-7E15	1	7	1	1.7	1
16	GA001492-7E9	1	5	1	4.3	1
17	MD01W233-07-1	0	6	1	4.3	1
18	MD00W53-07-1	0	8	1	3.7	3
19	G89270	1	3	2	2.3	1
20	G89283	1	2	1	1.7	1
21	G89267	1	3	3	2.3	7
22	B040798	1	1	1	6.7	7
23	D05-6189	0	0	1	5.3	1
24	D05*6441	1	2	2	3.0	7
25	FL01029-K1	1	4	1	1.3	1
26	Z03-0496	1	3	1	5.7	1
27	ARS03-5358	1	8	2	5.3	4
28	ARS05-0443	0	0	1	5.7	1
29	VA04W-90	1	5	1	1.0	1
30	VA05W-139	0	1	1	3.7	1
31	VA06W-392	1	6	1	3.3	7
32	VA05W-251	1	3	2	3.7	1
33	LA01034D-235-1	0	0	1	2.7	1
34	LA01029D-139-3	1	6	1	2.7	1
35	LA01139D-56-1	0	3	1	2.3	1
36	AR96052-4-3	1	5	2	6.7	6
37	AR98088-1-1	1	4	3	1.0	6
38	NC05-21090	1	4	2	4.3	7
39	NC05-20276	1	5	1	2.0	6
40	NC05-19684	1	9	1	2.3	3
LOCATION MEANS	0.6	3.5	1.4	3.4	2.7	

LODGING

	Baton Rouge	Winnsboro	Portageville	Cleveland	Newton	
	LA	LA	MO	MS	MS	
	Harrison	Harrison	McKendry	Hancock	Burgess	
	0-9	0-9	0-9	0-9	0-9	
1	AGS 2000	5.3	1.5	1.0	1	1
2	Pioneer Brand 26R61	0.0	0.0	0.7	0	1
3	Coker 9553	0.0	0.0	2.3	1	1
4	VA02W-555	0.0	0.0	1.3	0	1
5	MO011126	0.0	1.0	1.7	0	1
6	NC04-20814	0.0	0.0	2.0	1	1
7	LA01140D-70	1.3	0.5	0.3	1	1
8	TN802	0.0	3.0	2.0	2	1
9	TN501	0.0	2.0	1.7	0	1
10	W990002K1	0.0	1.5	2.7	1	1
11	W980031K1	1.0	0.0	0.0	0	1
12	W980031L1	0.0	4.0	0.7	1	1
13	GA031238-DH7-7E34	0.0	0.0	0.3	0	1
14	GA001170-7E26	0.0	0.0	0.7	0	1
15	GA001169-7E15	6.3	2.0	0.3	2	1
16	GA001492-7E9	2.8	0.0	0.3	1	1
17	MD01W233-07-1	0.0	0.5	1.3	1	1
18	MD00W53-07-1	0.0	1.0	1.7	1	1
19	G89270	0.0	0.5	3.0	1	1
20	G89283	0.0	1.5	1.3	0	1
21	G89267	0.0	3.0	2.0	1	2
22	B040798	0.0	1.0	1.7	0	1
23	D05-6189	0.0	0.0	1.7	0	1
24	D05*6441	0.0	0.0	2.0	1	1
25	FL01029-K1	5.0	0.0	0.7	0	1
26	Z03-0496	0.0	1.0	2.0	0	1
27	ARS03-5358	6.0	0.0	0.3	0	1
28	ARS05-0443	0.0	0.0	0.3	0	1
29	VA04W-90	0.0	0.0	2.0	1	1
30	VA05W-139	0.0	0.0	0.0	0	1
31	VA06W-392	3.5	2.0	1.3	1	1
32	VA05W-251	1.0	0.0	2.7	0	1
33	LA01034D-235-1	0.0	0.0	0.0	0	1
34	LA01029D-139-3	3.3	0.0	0.0	1	1
35	LA01139D-56-1	0.0	0.0	0.7	1	1
36	AR96052-4-3	0.0	2.5	1.3	1	1
37	AR98088-1-1	6.0	0.0	1.3	2	1
38	NC05-21090	0.0	0.0	0.3	1	1
39	NC05-20276	0.0	0.5	1.3	1	1
40	NC05-19684	0.0	0.5	0.7	1	1
LOCATION MEANS	1.0	0.7	1.2	0.7	1.0	

LODGING

		Knoxville	Blacksburg	Warsaw
		TN	VA	VA
		West	Griffey	Griffey
		0-9	0-9	0-9
1	AGS 2000	6.0	1.0	0.5
2	Pioneer Brand 26R61	0.7	0.5	0.0
3	Coker 9553	2.7	0.0	0.5
4	VA02W-555	4.3	0.5	1.0
5	MO011126	2.7	0.0	1.5
6	NC04-20814	4.3	0.5	1.5
7	LA01140D-70	7.0	0.5	0.0
8	TN802	6.0	1.0	2.0
9	TN501	5.0	2.0	1.5
10	W990002K1	8.3	0.0	0.0
11	W980031K1	0.3	0.0	0.0
12	W980031L1	7.3	2.0	3.0
13	GA031238-DH7-7E34	3.3	2.0	0.0
14	GA001170-7E26	4.7	0.5	0.0
15	GA001169-7E15	5.3	2.0	7.0
16	GA001492-7E9	5.3	0.0	2.0
17	MD01W233-07-1	5.0	1.0	0.5
18	MD00W53-07-1	4.3	3.0	3.5
19	G89270	3.3	0.0	3.5
20	G89283	4.3	0.0	0.0
21	G89267	7.3	2.5	3.0
22	B040798	4.7	2.0	3.0
23	D05-6189	3.3	0.0	0.5
24	D05*6441	5.3	1.5	1.0
25	FL01029-K1	6.0	1.5	2.5
26	Z03-0496	5.0	0.0	1.0
27	ARS03-5358	6.7	0.0	0.5
28	ARS05-0443	0.7	0.0	0.0
29	VA04W-90	2.7	1.5	1.0
30	VA05W-139	3.0	0.0	0.5
31	VA06W-392	7.7	2.0	4.0
32	VA05W-251	5.3	0.5	1.0
33	LA01034D-235-1	8.3	0.0	0.0
34	LA01029D-139-3	5.7	3.0	2.5
35	LA01139D-56-1	2.3	1.5	0.0
36	AR96052-4-3	7.7	3.0	2.0
37	AR98088-1-1	8.0	2.0	4.0
38	NC05-21090	5.0	1.5	4.0
39	NC05-20276	7.0	0.5	2.5
40	NC05-19684	7.7	1.0	1.0
LOCATION MEANS		5.0	1.0	1.6

WINTER DAMAGE

	Tipton IN Brown hardiness 0-9	Portageville MO McKendry winterkill 0-9	Oconto WI Cisar winterkill 0-9
1	AGS 2000	4.8	6.0
2	Pioneer Brand 26R61	5.5	4.0
3	Coker 9553	3.0	3.0
4	VA02W-555	4.0	4.0
5	MO011126	3.0	2.0
6	NC04-20814	4.5	2.0
7	LA01140D-70	6.8	1.0
8	TN802	3.3	0.0
9	TN501	2.5	0.0
10	W990002K1	4.8	1.0
11	W980031K1	6.3	3.0
12	W980031L1	5.8	3.0
13	GA031238-DH7-7E34	4.5	3.0
14	GA001170-7E26	5.0	4.0
15	GA001169-7E15	6.0	1.0
16	GA001492-7E9	8.8	1.0
17	MD01W233-07-1	7.3	0.0
18	MD00W53-07-1	6.0	0.0
19	G89270	3.0	0.0
20	G89283	2.3	0.0
21	G89267	4.3	3.0
22	B040798	4.3	1.0
23	D05-6189	5.5	5.0
24	D05*6441	7.3	2.0
25	FL01029-K1	7.3	7.0
26	Z03-0496	3.0	5.0
27	ARS03-5358	7.5	7.0
28	ARS05-0443	4.3	3.0
29	VA04W-90	5.3	4.0
30	VA05W-139	3.8	4.0
31	VA06W-392	4.3	3.0
32	VA05W-251	5.5	3.0
33	LA01034D-235-1	6.0	6.0
34	LA01029D-139-3	8.3	8.0
35	LA01139D-56-1	6.3	7.0
36	AR96052-4-3	5.9	5.0
37	AR98088-1-1	2.8	1.0
38	NC05-21090	7.5	7.0
39	NC05-20276	4.0	4.0
40	NC05-19684	5.0	7.0
LOCATION MEANS		5.1	3.3
GROWTH STAGE / DATE		March 20	

LEAF RUST

	Belle Mina AL Glass 0-9	Bay AR Hancock 0-9	Plains GA Johnson 0-9	Lafayette IN Moreno	Tipton IN Brown 0-9	
1	AGS 2000	0		1	1.5	
2	Pioneer Brand 26R61	0	4	1	1.0	
3	Coker 9553	0		2	2.5	
4	VA02W-555	0	6	7	1	2.0
5	MO011126	0		3	2.0	
6	NC04-20814	0		6	1	1.0
7	LA01140D-70	0	2	3	1	1.0
8	TN802	0	4	6	1	2.0
9	TN501	0	3	7	1	1.5
10	W990002K1	0		1	3.0	
11	W980031K1	0		2	1	1.0
12	W980031L1	0		1	2.0	
13	GA031238-DH7-7E34	0		3	1	1.5
14	GA001170-7E26	0	1		1	1.0
15	GA001169-7E15	2	2		1	1.0
16	GA001492-7E9	0		0	1	2.0
17	MD01W233-07-1	0	2	1	1	1.0
18	MD00W53-07-1	0	2	0	1	2.0
19	G89270	1		1	3	2.0
20	G89283	4	4	1	2	2.0
21	G89267	3	3	7	3	8.0
22	B040798	0		6	4	2.0
23	D05-6189	0		0	1	2.0
24	D05*6441	0			2	2.0
25	FL01029-K1	0			1	1.5
26	Z03-0496	2	3	6	2	3.0
27	ARS03-5358	0	2		1	1.0
28	ARS05-0443	1	2	2	2	1.0
29	VA04W-90	0	3		3	2.0
30	VA05W-139	0	2	5	1	2.0
31	VA06W-392	2	2	0	1	1.0
32	VA05W-251	0			1	1.0
33	LA01034D-235-1	0		0	1	2.0
34	LA01029D-139-3	1	2		1	1.5
35	LA01139D-56-1	0			1	1.0
36	AR96052-4-3	1		2	2	1.0
37	AR98088-1-1	0			1	2.0
38	NC05-21090	0	2	4	1	1.5
39	NC05-20276	3		0	1	1.0
40	NC05-19684	0		1	1	1.0
LOCATION MEANS	0.5			1.4	1.8	
GROWTH STAGE / DATE					June 8	

LEAF RUST

	Baton Rouge	Winnsboro	Kinston	Warsaw	Oconto	
	LA	LA	NC	VA	WI	
	Harrison	Harrison	Murphy	Griffey	Cisar	
	0-9	0-9	0-9			
1	AGS 2000	0.3	0.0	0.0	0	
2	Pioneer Brand 26R61	0.3	0.0	1.0	0	
3	Coker 9553	2.7	0.2	0.5	0	
4	VA02W-555	0.3	0.0	4.0	3.0	5
5	MO011126	1.7	0.2	3.5	0.5	1
6	NC04-20814	2.0	0.0	0.5	0.0	0
7	LA01140D-70	0.3	0.0	1.0	0.0	0
8	TN802	3.3	0.6	0.5	0.0	3
9	TN501	0.7	0.0	1.5	1.5	0
10	W990002K1	0.7	0.0	1.5	2.0	6
11	W980031K1	0.3	0.0	1.0	1.5	0
12	W980031L1	2.7	3.0	4.0	3.5	0
13	GA031238-DH7-7E34	0.0	0.1	0.5	1.5	0
14	GA001170-7E26	0.3	0.0	0.0	0.0	0
15	GA001169-7E15	0.3	0.0	0.0	2.5	0
16	GA001492-7E9	1.3	0.2	1.0	0.0	0
17	MD01W233-07-1	0.7	0.0	2.5	1.5	0
18	MD00W53-07-1	0.0	0.0	1.5	0.0	0
19	G89270	1.7	0.8	6.0	0.0	1
20	G89283	3.7	2.5	5.5	1.5	2
21	G89267	2.3	0.0	8.0	6.0	9
22	B040798	1.7	1.5	1.0	3.0	3
23	D05-6189	1.0	0.0	0.0	0.0	0
24	D05*6441	0.3	0.0	1.0	0.5	0
25	FL01029-K1	0.0	0.1	1.0	0.0	0
26	Z03-0496	2.3	0.0	4.0	2.0	4
27	ARS03-5358	0.0	0.0	0.0	0.0	0
28	ARS05-0443	1.0	0.3	1.5	0.5	0
29	VA04W-90	1.0	0.1	3.0	2.5	0
30	VA05W-139	0.7	0.1	0.5	1.0	0
31	VA06W-392	0.3	0.0	0.5	0.0	0
32	VA05W-251	0.0	0.0	0.5	0.0	0
33	LA01034D-235-1	0.7	0.3	2.0	1.5	0
34	LA01029D-139-3	0.3	0.0	2.0	0.0	0
35	LA01139D-56-1	1.0	0.0	2.0	1.5	0
36	AR96052-4-3	0.0	0.1	3.0	1.0	0
37	AR98088-1-1	4.3	1.2	2.0	1.0	3
38	NC05-21090	1.0	0.1	5.0	0.5	6
39	NC05-20276	0.0	0.0	0.0	0.5	0
40	NC05-19684	0.0	0.0	0.0	0.0	0
LOCATION MEANS	1.0	0.3	1.8	1.1	1.1	
GROWTH STAGE / DATE				May 27		

LEAF RUST

St. Paul
MN

Long/Kolmer

Reactions produced by NA race* **

		MCRJ	MFPS	MLDS	MBTS	TBRK	TNRJ	TLBF	TFRJ	TJBJ	Postulated genes***
1	AGS 2000	3	3-;1c	;1c	;	;1c	;1c	;	3-,2	;	26
2	Pioneer Brand 26R61	3	;1c2	;	;	;2c	;1c2	;	3	;	11,26
3	Coker 9553	3	;1c	;	;3	3	3	3	3	;	11,
4	VA02W-555	3	;1c2	;	;	;1c	;1c	;	3	;	11,26
5	MO011126	3	3	3	3	3	3	3;	3	3;	-
6	NC04-20814	;1c	;1c	;	;	3	;1c	3	;	;	18
7	LA01140D-70	;1c	3	3	3	;1c1	;1c	3	3	3	+
8	TN802	;	;1c	3	-	;	3	;	;1c2	;1c	9,10
9	TN501	3+	;	;	;	;1c2	;1c2	;	3	;	11,26
10	W990002K1	;1cn	;1cn	;1c	;-3	;1c1	;1c2-3	;1c	;1c2	;	+
11	W980031K1	3;	;1c2	;1c	;	;1c1	;1c	;	;1c2	;1c	+
12	W980031L1	3-;1c	;1cn	;	;	3	;1c	3	3-1c2	;	2a,11
13	GA031238-DH7-7E34	;1cn	;1c	;1c	;	3	;1c	;1c	;	;	+
14	GA001170-7E26	3	;1c2	;	;	3;	;1c1	;	;12	;	+
15	GA001169-7E15	;	;1c1	;	;	;	3	;	;	;	9,24
16	GA001492-7E9	3	;1c2	;	;	3	3	;	3	;	11
17	MD01W233-07-1	;	3;	;	;	;	3	;	21c;	;21c	+
18	MD00W53-07-1	;	;1cn	;	;	;	;1c2	;	;	;	+
19	G89270	3	3	;	;	3	3	;	3	3	+
20	G89283	3	3	;	;	3	3	;	3	3	+
21	G89267	3	3	;	;	3	3	3	3	;	+
22	B040798	;	;	;	;	3;1c	;1c	2;-3	;	;	+
23	D05-6189	;	;	;	;	0;	;1c	;	;	;	+
24	D05*6441	;1c	;1c	;	;	2;	;1c	;	;	;	+
25	FL01029-K1	3	3;	;1c	;	;1c2	;1c1	;	3	;	26
26	Z03-0496	3	3	;1c	;	;1c2	;1cn	;	3	;	26
27	ARS03-5358	0;	0;	;23	;	0;	;1cn	;	;	;	+
28	ARS05-0443	;1c	;1c2	;	;	;1c	;1cn	;	;1c	;1c	+
29	VA04W-90	;1c-3	;	;	;	21;	;1cn	;2	;2	;	+
30	VA05W-139	;1c2	;1c	;	;	3	3	;2	;	;	2a,10,11
31	VA06W-392	;	;1c	;1c	;3	;	;1c	3	;	;-3	18+
32	VA05W-251	;	;	;	;	;	;1c	3;	;	;	+
33	LA01034D-235-1	;1c	;	;	;	3	;1c1	;	;	;	+
34	LA01029D-139-3	3	;1c	;1c	;	;1c	;1c1	;	;1c3	;	11,26
35	LA01139D-56-1	3-;	3	3	3	3	3-;1c	3	3	3	-
36	AR96052-4-3	;	;	;	;	;-3	;1c	3	;	;	18+
37	AR98088-1-1	3	3	3	3	3	3	3	3	3	-
38	NC05-21090	3	3	3	3	3	3	3-;1c	3-;1c	;1c-3	-
39	NC05-20276	;	;	;	;	;	;	3	;	;	9,18
40	NC05-19684	;	;	;	;	;	3	;1c	;	;	9,24

*Single genes tested: = 1,2a,2c,3,3Ka,9,10,11,14a,16,17,18,24,26,30,B

**Virulence formula:

MCRJ=1,3,3ka,10,11,14a,26,30

MFPS=1,3,3ka,10,14a,17,24,26,30,B

MLDS=1,3,9,10,14a,17,B

MBTS=1,3,3ka,10,11,14a,17,30,B

TBRK=1,2a,2c,3,3ka,10,11,14a,18,26,30

TNRJ=1,2a,2c,3,3ka,9,10,11,14a,24,30

TLBJ=1,2a,2c,3,9,10,14a

TFRJ=1,2a,2c,3,3ka,10,11,14a,24,26,20

TJBJ=1,2a,2c,3,10,14a,16,24

***+ = Lr gene(s) present but unable to identify with these Lr virulence combinations

LEAF RUST

Blacksburg

VA

Griffey

	VA-LR 2008-09 TCRK+ MFQS GH (0-3)	VA-LR 2008-09 TNRJ GH (0-3)	Diff #	Gene	Race	Races
					TNRJ	TCRK + MFQS
					0-3	0-3
1	AGS 2000	3;				0
2	Pioneer Brand 26R61	3;				0;
3	Coker 9553	3				3
4	VA02W-555	23;				0;
5	MO011126	3				3;
6	NC04-20814	23;				3;
7	LA01140D-70	23;				3;
8	TN802	0;				3
9	TN501	12;				0;
10	W990002K1	3;				3
11	W980031K1	23;				0;
12	W980031L1	3;	1	LR 1	n/a	3
13	GA031238-DH7-7E34	2;	2	LR 2a	3-	3-
14	GA001170-7E26	12;	3	LR 2c	3	3;
15	GA001169-7E15	3;	4	LR 3	3-	3
16	GA001492-7E9	23;	5	LR 9	3-	0;
17	MD01W233-07-1	3	6	LR 16	;1-	12=cn
18	MD00W53-07-1	0;	7	LR 24	3-	23
19	G89270	3	8	LR 26	;1-	3-
20	G89283	3	9	LR 3ka	3	3
21	G89267	3	10	LR 11	3	3
22	B040798	3-	11	LR 17	;1=	;1-cn
23	D05-6189	0;	12	LR 30	3	3
24	D05*6441	3	13	LR B	1-	3
25	FL01029-K1	2;	14	LR 10	3	3
26	Z03-0496	3;	15	LR 14a	3	3
27	ARS03-5358	0;	16	LR 18	3	3
28	ARS05-0443	;1-	17	LR 21	3-	;1-
29	VA04W-90	3;	18	LR 28	3	3
30	VA05W-139	23;				23;
31	VA06W-392	0;tr3				3;
32	VA05W-251	0;				3
33	LA01034D-235-1	3				2;
34	LA01029D-139-3	;1				0;
35	LA01139D-56-1	3				23
36	AR96052-4-3	0;/3				3
37	AR98088-1-1	3				3
38	NC05-21090	;12-				23;
39	NC05-20276	0;				23;
40	NC05-19684	0;				3-

STEM RUST

St. Paul
MN

Jin

	QFCS	QTHJ	MCCF	RCRS	RKQQ	TPMK	TTTT	Bulk
	06ND76C	75ND717C	59KS19	77ND82A	99KS76A-1	74MN1409	01MN84A-1-2	
1	AGS 2000	0;2-	2	0;	;2-	2-	2	;2/S
2	Pioneer Brand 26R61	2	2	2-	2	2-	2	2-
3	Coker 9553	S	S	S	S	S	S	S
4	VA02W-555	0	0	0	2-	0;	;2	;2-
5	MO011126	S	S	S	S	S	S	S
6	NC04-20814	0	0, 1pu S	0	S	S	S	S
7	LA01140D-70	S/2	S;/3	2	S	;1+/2+ C	S/2-	S
8	TN802	S	S	S	S	S	S	S
9	TN501	2-	2	2-	2-;	;1-	2	2-
10	W990002K1	0	0	0	0;	;1	3+1;	0;3-
11	W980031K1	2	2	2-	2-	2	2	2-
12	W980031L1	S	S	S	S	S	S	S
13	GA031238-DH7-7E34	0	0	0	S	;13	;13	S
14	GA001170-7E26	;2-	2	2-	2;	2	2	2-
15	GA001169-7E15	;	2	;	2	2-	2	2
16	GA001492-7E9	2	22+	S	22+	S	S	S
17	MD01W233-07-1	0;	2	2-	;2-	;	2	2
18	MD00W53-07-1	0	2	2-	2	;2-	22+	2
19	G89270	2	S	2+/S	S	;13	S	S
20	G89283	2	S	2	S	;13	2+	S
21	G89267	0	0/S	0 esc?	S	S	S	S
22	B040798	S	S	S	S	S	S	S
23	D05-6189	0;	;13	;	3;	;13	;13-	S
24	D05*6441	0	0	0	S	S	3+;	S
25	FL01029-K1	2	0/2	0/2-	;2-	2	2	;2-
26	Z03-0496	2-	2	2-	;2-	2-	2	;1
27	ARS03-5358	0;	0	0;	S	S	3;	2
28	ARS05-0443	0	;	;	;	;	;1	;1+
29	VA04W-90	S	S	S	S	S/2	S	S
30	VA05W-139	S	S	S	S	S	S	S
31	VA06W-392	S	S	S	S	S	S	S
32	VA05W-251	S	S	S	S	S	S	S
33	LA01034D-235-1	0;	;1+	;1-	S	;	2-	S
34	LA01029D-139-3	0 esc?	;	0;	;1	2	2	2-
35	LA01139D-56-1	0	0	0	S/2-	0	0;	S
36	AR96052-4-3	0	0	0;	S	S	S	S
37	AR98088-1-1	S	S	S	S	S	S	S
38	NC05-21090	0	0	0	3- 2	;	0;/S	S
39	NC05-20276	0	0	0	S	S LIF	;3-/S	S
40	NC05-19684	0	0	0	S	S	S	S

Notes and explanations:

Bulk: a composite of US races: QFCS, QTHJ, RCRS, RKQQ, TPMK, TTTT

Ratings: "S" denotes susceptible infection type (IT) 3 or 4.

"/" denotes heterogeneous, the predominant type given first.

"LIF" denotes low infection frequency, or fewer number of pustules.

Gene postulation was tentative and done for genes effective against TTKSK (Ug99) only. No attempt was made to postulate other Sr genes. Users are advised to confirm with available markers.

Repeated screening was done based on preliminary screening with race TTKSK (rep 1). Lines missing or suspected to be resistant were repeated with 3 races of the TTKS lineage: TTKSK (Ug99), TTKST (Sr24 virulence), and TTTSK (Sr36 virulence) and TRTT (a race with 1A.1R virulence, not in the TTKS lineage)

QCCL and QCCSM were added in 2008/09 screening, both have virulence on Sr24. RFCS was detected in 2008. It has a similar virulence to QFCS except high on Sr7b.

STEM RUST

St. Paul
MN

Jin

RFCS QCCL QCCSM TTKSK TTKSK TTKSK TTKST TTTSK TRTT
08TX31-1 J7WA140-17-175WA165-2A 04KEN156/0404KEN156/0404KEN156/04 06KEN19V3 07KEN24-4 06YEMS4-1

				rep 1	rep 2	rep 3			
1	AGS 2000	;	0	;2-	2+	2+	2+LIF	2+	2-
2	Pioneer Brand 26R61	2-	;2-	;1	S	0	S	S	2-
3	Coker 9553	S	;1	S	S	S	S	S	S
4	VA02W-555	0	0	0	0	0	0	S	2-
5	MO011126	S	0	S	S	S			
6	NC04-20814	0	0	0;	0	S	0	S	S
7	LA01140D-70	S	0	3;	S	S			
8	TN802	S	;1	S	S	S			
9	TN501	2-	0	2-	S	S			
10	W990002K1	0;	0	0;	0;	2-	;12-	S	S
11	W980031K1	2-	0	2-	S	S			
12	W980031L1	S	S	S	S	S			
13	GA031238-DH7-7E34	;1	0	0;	0	0	0	S	S
14	GA001170-7E26	2-	;	2-	S	S			
15	GA001169-7E15	;1	0/1	2-	2-	2-	2	2-	2-
16	GA001492-7E9	2	2	S	2+	2+	2+	2+	S
17	MD01W233-07-1	2-	;	2-	2-	2-	2	2	2-
18	MD00W53-07-1	2-	0	2	2-	2	2	2-LIF	;2-
19	G89270	2	0	2+	S	S			
20	G89283	2	0	2+	S	S			
21	G89267	0	0	0	0	0	0	S	S
22	B040798	S	0	S	S	S			
23	D05-6189	;	;	;3-	S	S			
24	D05*6441	0	0	0	0	0	0	S	S
25	FL01029-K1	2-	0	;	2	2	2	2	2-
26	Z03-0496	;	0	2	-	S	S	SLIF	2-
27	ARS03-5358	0	0;	0;	0	0;	0	S/2	S
28	ARS05-0443	0	0	;	S	S			
29	VA04W-90	S	S	S/2	S	S			
30	VA05W-139	S	2++	S	S	S			
31	VA06W-392	S	;	S/2	S	S			
32	VA05W-251	S	S	S	S	S			
33	LA01034D-235-1	;	0	;2	S	S			
34	LA01029D-139-3	;	0	;	0;	2+	1 LIF	2+LIF	2-
35	LA01139D-56-1	0	0	0;	0	0	0	S	S
36	AR96052-4-3	0	0	0;	0	2	0;/2+	S	S
37	AR98088-1-1	S	1	S	S	S			
38	NC05-21090	0	0	0	0	0;	0	S	S
39	NC05-20276	0	0	;1	0/S	0;/2+	0/S	S	32
40	NC05-19684	0	0	;1	0	0	0	S	S

Avirulence/virulence formula of stem rust races used in screening:

race	Avirulence	Virulence
MCCF	6 8a 9b 9d 9e 11 24 30 31 36 38 1A.1R	5 7b 9a 9g 10 17 Tmp McN
QCCL	6 7b 8a 9b 9d 9e 10 11 30 31 36 38 Tmp 1A.1R McN	5 9a 9g 17 21 24
QCCSM	6 7b 8a 9b 9e 11 30 31 36 38 Tmp 1A.1R	5 9a 9d 9g 10 17 21 24 McN
QFCS	6 7b 9b 9e 11 24 30 31 36 38 Tmp 1A.1R	5 8a 9a 9d 9g 10 17 21 McN
QTHJ	7b 9a 9e 24 30 31 36 Tmp 1A.1R	5 6 8a 9b 9d 9g 10 11 17 21 38 McN
RFCS	6 9b 9e 11 24 30 31 36 38 Tmp 1A.1R	5 7b 8a 9a 9d 9g 10 17 21 McN
RCRS	6 8a 9e 11 24 30 31 Tmp 1A.1R	5 7b 9a 9b 9d 9g 10 17 21 38 McN
RKQQ	9e 10 11 17 24 30 31 38 Tmp 1A.1R	5 6 7b 8a 9a 9b 9d 9g 21 McN
TPMK	6 9a 9b 24 30 31 38 1A.1R	5 7b 8a 9a 9d 9e 9g 10 11 17 21 36 Tmp McN
TTTT	24 31 1A.1R	5 6 7b 8a 9a 9b 9d 9e 9g 10 11 17 21 30 36 38 McN
TTKSK	24 36 Tmp 1A.1R	5 6 7b 8a 9a 9b 9d 9e 9g 10 11 17 21 30 31 38 McN
TTKST	36 Tmp 1A.1R	5 6 7b 8a 9a 9b 9d 9e 9g 10 11 17 21 24 30 31 38 McN
TTTSK	24 Tmp 1A.1R	5 6 7b 8a 9a 9b 9d 9e 9g 10 11 17 21 30 31 36 38 McN
TTRT	8a 24 31	5 6 7b 9a 9b 9d 9e 9g 10 11 17 21 30 36 38 McN 1A.1R

STEM RUST

Crowley

LA

Harrison

0-9

1	AGS 2000	0
2	Pioneer Brand 26R61	0
3	Coker 9553	5
4	VA02W-555	0
5	MO011126	4
6	NC04-20814	1
7	LA01140D-70	1
8	TN802	7
9	TN501	4
10	W990002K1	0
11	W980031K1	3
12	W980031L1	4
13	GA031238-DH7-7E34	0
14	GA001170-7E26	1
15	GA001169-7E15	0
16	GA001492-7E9	1
17	MD01W233-07-1	2
18	MD00W53-07-1	3
19	G89270	2
20	G89283	2
21	G89267	0
22	B040798	7
23	D05-6189	0
24	D05*6441	0
25	FL01029-K1	0
26	Z03-0496	2
27	ARS03-5358	0
28	ARS05-0443	0
29	VA04W-90	5
30	VA05W-139	3
31	VA06W-392	3
32	VA05W-251	5
33	LA01034D-235-1	0
34	LA01029D-139-3	1
35	LA01139D-56-1	0
36	AR96052-4-3	0
37	AR98088-1-1	2
38	NC05-21090	0
39	NC05-20276	0
40	NC05-19684	1

LOCATION MEANS

1.7

STRIPE RUST

	Plains	Laurel Springs		Pullman	
	Ga Johnson	NC Marshall		WA Chen	
	0-9	IT	%	IT	%
1 AGS 2000		8	60	8	20
2 Pioneer Brand 26R61		4	10	5	10
3 Coker 9553		0	0	2	5
4 VA02W-555	7	0	0	2	1
5 MO011126		1	10	5	30
6 NC04-20814	6	7	80	8	90
7 LA01140D-70	3	2	40	2	5
8 TN802	6	7	70	8	40
9 TN501	7	2	5	3	20
10 W990002K1		4	20	2	1
11 W980031K1	2	3	20	5	30
12 W980031L1		9	90	8	100
13 GA031238-DH7-7E34	3	0	0	2	10
14 GA001170-7E26		6	50	5	30
15 GA001169-7E15		4	60	2	5
16 GA001492-7E9	0	3	20	2	1
17 MD01W233-07-1	1	2	50	8	40
18 MD00W53-07-1	0	2	50	8	60
19 G89270	1	1	20	3	30
20 G89283	1	4	30	8	90
21 G89267	7	8	20	8	90
22 B040798	6	1	30	8	30
23 D05-6189	0	1	1	2	1
24 D05*6441		3	20	3	30
25 FL01029-K1		6	30	8	30
26 Z03-0496	6	2	10	3	5
27 ARS03-5358		8	40	8	60
28 ARS05-0443	2	0	0	2	5
29 VA04W-90		4	50	8	40
30 VA05W-139	5	1	10	2	5
31 VA06W-392	0	3	50	3	10
32 VA05W-251		8	70	8	100
33 LA01034D-235-1	0	0	0	2	1
34 LA01029D-139-3		7	60	8	90
35 LA01139D-56-1		0	0	3	5
36 AR96052-4-3	2	3	20	8	20
37 AR98088-1-1		3	10	3	10
38 NC05-21090	4	0	0	2	1
39 NC05-20276	0	8	60	8	90
40 NC05-19684	1	9	90	8	90

LOCATION MEANS 3.6 31.4 5.0 33.3
 GROWTH STAGE / DATE late milk / July 1

STRIPE RUST

Mt. Vernon
WA
Chen

	IT	%	IT	%
1 AGS 2000	5	5	8	50
2 Pioneer Brand 26R61	3	10	2	2
3 Coker 9553	5	5	5	20
4 VA02W-555	2	2	2	2
5 MO011126	2	5	2	10
6 NC04-20814	8	10	8	30
7 LA01140D-70	8	15	3	30
8 TN802	8	20	8	30
9 TN501	3	5	3	5
10 W990002K1	8	20	3	30
11 W980031K1	2	2	2	10
12 W980031L1	8	10	2	2
13 GA031238-DH7-7E34	5	5	3	20
14 GA001170-7E26	2	5	3	30
15 GA001169-7E15	3	5	3	30
16 GA001492-7E9	5	10	2	5
17 MD01W233-07-1	3	10	3	20
18 MD00W53-07-1	8	30	5	30
19 G89270	8	10	3	30
20 G89283	8	10	3	30
21 G89267	8	10	3	30
22 B040798	8	10	3	20
23 D05-6189	2	5	3	10
24 D05*6441	8	10	2	10
25 FL01029-K1	2	5	3	30
26 Z03-0496	2	2	5	20
27 ARS03-5358	8	10	5	30
28 ARS05-0443	2	2	2	2
29 VA04W-90	5	10	3	30
30 VA05W-139	2	2	2	2
31 VA06W-392	5	10	2	10
32 VA05W-251	5	20	5	20
33 LA01034D-235-1	8	10	3	30
34 LA01029D-139-3	3	5	3	30
35 LA01139D-56-1	8	30	8	60
36 AR96052-4-3	8	20	5	60
37 AR98088-1-1	3	10	3	20
38 NC05-21090	3	5	2	10
39 NC05-20276	8	20	3	50
40 NC05-19684	8	30	8	80

LOCATION MEANS	5.3	10.5	3.7	24.3
GROWTH STAGE / DATE	stem elong. / April 22		flowering / June 5	

STRIPE RUST

Walla Walla
WA
Chen

	IT	%
1 AGS 2000	8	60
2 Pioneer Brand 26R61	8	60
3 Coker 9553	5	20
4 VA02W-555	5	20
5 MO011126	8	60
6 NC04-20814	8	80
7 LA01140D-70	5	20
8 TN802	8	60
9 TN501	8	60
10 W990002K1	5	20
11 W980031K1	5	20
12 W980031L1	5	30
13 GA031238-DH7-7E34	5	20
14 GA001170-7E26	3	20
15 GA001169-7E15	5	20
16 GA001492-7E9	8	60
17 MD01W233-07-1	5	30
18 MD00W53-07-1	4	20
19 G89270	3	20
20 G89283	8	60
21 G89267	5	40
22 B040798	5	40
23 D05-6189	2	2
24 D05*6441	8	30
25 FL01029-K1	8	80
26 Z03-0496	8	30
27 ARS03-5358	8	80
28 ARS05-0443	5	30
29 VA04W-90	8	50
30 VA05W-139	4	20
31 VA06W-392	8	60
32 VA05W-251	8	60
33 LA01034D-235-1	5	20
34 LA01029D-139-3	8	60
35 LA01139D-56-1	8	60
36 AR96052-4-3	8	60
37 AR98088-1-1	8	40
38 NC05-21090	2	2
39 NC05-20276	8	60
40 NC05-19684	8	80

LOCATION MEANS 6.3 41.6
GROWTH STAGE / DATE dough / June 20

SEPTORIA

	Belle Mina	Bay	Lafayette	Tipton	
	AL	AR	IN	IN	
	Glass	Hancock	Moreno	Brown	
	tritici	tritici	tritici	tritici	
				0-9	
1	AGS 2000	5	5	4	5.0
2	Pioneer Brand 26R61	6	4	2	4.0
3	Coker 9553	6	5	4	5.0
4	VA02W-555	6	4	3	4.0
5	MO011126	5	4	3	4.0
6	NC04-20814	5	5	5	5.5
7	LA01140D-70	5	4	5	5.5
8	TN802	5	4	7	5.0
9	TN501	5	3	3	5.0
10	W990002K1	5	6	5	5.0
11	W980031K1	6	4	3	5.0
12	W980031L1	5	7	3	6.0
13	GA031238-DH7-7E34	4	6	2	5.0
14	GA001170-7E26	5	4	2	5.0
15	GA001169-7E15	6	3	4	4.0
16	GA001492-7E9	6	5	4	6.0
17	MD01W233-07-1	5	3	4	5.0
18	MD00W53-07-1	5	3	5	5.0
19	G89270	5	4	6	5.0
20	G89283	5	4	4	5.0
21	G89267	5	4	7	5.0
22	B040798	6	3	8	5.0
23	D05-6189	5	5	3	4.0
24	D05*6441	6	6	5	4.0
25	FL01029-K1	5	4	4	5.0
26	Z03-0496	6	4	6	5.0
27	ARS03-5358	5	3	2	6.0
28	ARS05-0443	5	3	5	6.0
29	VA04W-90	6	4	4	4.5
30	VA05W-139	5	4	3	4.0
31	VA06W-392	6	3	3	4.0
32	VA05W-251	5	5	3	3.0
33	LA01034D-235-1	5	5	3	5.5
34	LA01029D-139-3	3	4	4	4.5
35	LA01139D-56-1	6	5	4	4.5
36	AR96052-4-3	5	3	4	6.0
37	AR98088-1-1	6	4	6	5.0
38	NC05-21090	5	4	3	4.0
39	NC05-20276	5	5	3	6.0
40	NC05-19684	5	5	3	5.0
LOCATION MEANS	5.3	4.3	4.0	4.9	
GROWTH STAGE / DATE				June 8	

SEPTORIA

		Oconto	
		WI	
		Cisar	
		tritici	nodorum
1	AGS 2000	4	2
2	Pioneer Brand 26R61	2	4
3	Coker 9553	4	2
4	VA02W-555	3	3
5	MO011126	3	1
6	NC04-20814	7	0
7	LA01140D-70	4	3
8	TN802	7	1
9	TN501	6	0
10	W990002K1	6	5
11	W980031K1	4	5
12	W980031L1	4	7
13	GA031238-DH7-7E34	4	6
14	GA001170-7E26	4	3
15	GA001169-7E15	7	2
16	GA001492-7E9	5	0
17	MD01W233-07-1	3	6
18	MD00W53-07-1	3	4
19	G89270	6	2
20	G89283	6	3
21	G89267	8	1
22	B040798	8	0
23	D05-6189	4	6
24	D05*6441	3	0
25	FL01029-K1	4	0
26	Z03-0496	6	5
27	ARS03-5358	1	0
28	ARS05-0443	7	0
29	VA04W-90	4	2
30	VA05W-139	5	3
31	VA06W-392	3	3
32	VA05W-251	4	0
33	LA01034D-235-1	5	2
34	LA01029D-139-3	3	1
35	LA01139D-56-1	3	3
36	AR96052-4-3	5	2
37	AR98088-1-1	7	0
38	NC05-21090	5	3
39	NC05-20276	4	3
40	NC05-19684	4	4
LOCATION MEANS		4.6	2.4
GROWTH STAGE / DATE			

FUSARIUM HEAD BLIGHT (SCAB)

		Belle Mina	Owensville	Lexington	Logan Co.	
		AL	IN	KY	KY	
		Glass	Fogleman	Van Sanford	Van Sanford	
		0-5	% FDK	Visual 0-9	0-9	
1	AGS 2000	1	19.5	5.3	1.5	8.5
2	Pioneer Brand 26R61	2	75.0	7.7	3.0	8.5
3	Coker 9553	1	24.3	5.7	2.5	9.0
4	VA02W-555	1	39.8	5.3	2.0	6.5
5	MO011126	1	19.5	4.7	2.0	4.5
6	NC04-20814	1	14.8	5.0	2.5	6.0
7	LA01140D-70	1	34.3	7.0	4.0	9.0
8	TN802	2	52.5	6.3	4.0	8.0
9	TN501	1	27.8	5.0	1.5	2.0
10	W990002K1	1	4.3	6.0	1.0	6.5
11	W980031K1	2	11.5	8.0	4.5	8.5
12	W980031L1	1	51.5	5.3	3.0	7.0
13	GA031238-DH7-7E34	1	21.8	6.0	1.5	6.5
14	GA001170-7E26	2	58.5	7.0	3.5	7.5
15	GA001169-7E15	2	35.5	4.0	0.5	4.5
16	GA001492-7E9	1	21.5	5.0	2.0	8.0
17	MD01W233-07-1	1	12.0	4.3	0.5	2.5
18	MD00W53-07-1	1	25.8	4.0	1.5	5.5
19	G89270	1	23.0	5.0	1.0	4.5
20	G89283	1	30.0	3.3	1.0	4.5
21	G89267	1	28.0	4.0	1.0	3.0
22	B040798	1	22.5	6.3	4.0	7.0
23	D05-6189	1	8.0	5.3	2.5	6.5
24	D05*6441	1	13.5	6.0	2.5	6.5
25	FL01029-K1	1	23.0	6.0	1.0	7.5
26	Z03-0496	1	38.3	6.3	3.0	3.0
27	ARS03-5358	2	30.8	5.0	0.0	1.0
28	ARS05-0443	1	26.0	3.0	1.5	1.0
29	VA04W-90	1	14.0	5.0	2.0	5.5
30	VA05W-139	1	15.3	5.3	1.5	6.0
31	VA06W-392	1	54.5	5.3	1.5	5.5
32	VA05W-251	1	45.5	5.0	2.0	7.0
33	LA01034D-235-1	1	39.0	6.0	3.5	8.0
34	LA01029D-139-3	1	31.8	4.3	0.5	6.5
35	LA01139D-56-1	1	33.0	6.0	2.5	9.0
36	AR96052-4-3	2	16.0	4.0	2.0	7.0
37	AR98088-1-1	1	21.3	4.3	2.0	7.5
38	NC05-21090	1	21.8	4.0	1.0	4.5
39	NC05-20276	1	27.0	5.0	1.5	6.0
40	NC05-19684	1	na	5.7	2.0	6.0
LOCATION MEANS		1.2	28.5	5.3	2.0	6.0
GROWTH STAGE / DATE				June 1		

FUSARIUM HEAD BLIGHT (SCAB)

		Queenstown		Portageville	
		MD		MO	
		Costa		McKendry	
		scabby seed			
		0-9	%	% florets	
1	AGS 2000	6.0	16	14	
2	Pioneer Brand 26R61	8.0	32	10	
3	Coker 9553	7.0	18	2	
4	VA02W-555	4.5	9	2	
5	MO011126	2.0	11	5	
6	NC04-20814	5.5	5	4	
7	LA01140D-70	6.5	24	11	
8	TN802	6.0	17	10	
9	TN501	3.0	14	3	
10	W990002K1	6.5	15	7	
11	W980031K1	7.5	29	11	
12	W980031L1	7.5	22	9	
13	GA031238-DH7-7E34	7.0	14	5	
14	GA001170-7E26	6.0	24	10	
15	GA001169-7E15	2.8	12	2	
16	GA001492-7E9	6.5	16	5	
17	MD01W233-07-1	1.0	4	5	
18	MD00W53-07-1	3.0	7	2	
19	G89270	1.3	5	2	
20	G89283	3.0	3	1	
21	G89267	1.0	4	2	
22	B040798	4.5	17	13	
23	D05-6189	5.5	5	7	
24	D05*6441	6.5	13	5	
25	FL01029-K1	4.0	10	7	
26	Z03-0496	6.5	9	2	
27	ARS03-5358	5.5	18	11	
28	ARS05-0443	2.5	8	3	
29	VA04W-90	2.3	4	1	
30	VA05W-139	5.5	22	9	
31	VA06W-392	4.0	6	6	
32	VA05W-251	1.8	4	3	
33	LA01034D-235-1	8.0	38	14	
34	LA01029D-139-3	2.0	13	9	
35	LA01139D-56-1	6.0	12	3	
36	AR96052-4-3	5.5	10	6	
37	AR98088-1-1	4.5	8	7	
38	NC05-21090	4.3	9	2	
39	NC05-20276	3.3	8	3	
40	NC05-19684	5.0	14	5	
LOCATION MEANS		4.7	13.1	6.0	
GROWTH STAGE / DATE		21 days post flowering			

POWDERY MILDEW

	Quincy FL Barnett/Blount 0-9	Plains GA Johnson 0-9	Kinston NC Murphy 0-9	Blacksburg VA Griffey	Warsaw VA Griffey	
1	AGS 2000	1.0	1	3.5	0.0	1.5
2	Pioneer Brand 26R61	0.3	5	5.0	2.0	5.5
3	Coker 9553	1.0	0	4.0	0.0	0.5
4	VA02W-555	1.3	2	3.5	0.0	2.0
5	MO011126	0.0	0	5.5	0.5	5.0
6	NC04-20814	0.0	0	1.5	0.0	2.0
7	LA01140D-70	1.3	2	2.5	0.0	2.5
8	TN802	4.7	3	6.5	0.5	5.5
9	TN501	3.0	3	5.5	1.5	4.5
10	W990002K1	1.7	1	4.0	0.0	2.0
11	W980031K1	0.7	5	5.0	2.5	6.0
12	W980031L1	3.0	3	5.0	0.0	4.0
13	GA031238-DH7-7E34	5.3	0	1.0	0.0	6.5
14	GA001170-7E26	1.3	1	2.0	0.0	0.0
15	GA001169-7E15	0.7	0	0.5	0.0	0.5
16	GA001492-7E9	4.0	0	4.0	0.0	1.0
17	MD01W233-07-1	0.0	0	0.0	0.0	1.0
18	MD00W53-07-1	1.7	0	5.0	0.0	8.0
19	G89270	2.3	5	6.5	3.0	7.5
20	G89283	1.3	7	6.5	2.5	8.0
21	G89267	0.0	0	4.0	0.0	4.0
22	B040798	0.3	0	4.5	0.0	3.0
23	D05-6189	0.3	2	5.5	0.0	1.5
24	D05*6441	2.3	7	7.0	2.0	7.0
25	FL01029-K1	0.0	0	1.5	0.0	4.0
26	Z03-0496	0.0	0	1.5	0.0	5.5
27	ARS03-5358	0.0	0	3.5	0.0	5.5
28	ARS05-0443	0.0	0	0.5	0.0	0.5
29	VA04W-90	2.0	0	1.5	0.0	2.0
30	VA05W-139	1.7	0	3.0	0.0	0.0
31	VA06W-392	4.7	3	5.0	2.5	7.0
32	VA05W-251	0.7	0	4.5	1.5	6.0
33	LA01034D-235-1	0.0	3	5.0	1.0	7.5
34	LA01029D-139-3	0.0	0	2.5	0.0	1.0
35	LA01139D-56-1	0.0	5	4.0	0.0	9.0
36	AR96052-4-3	3.0	0	2.0	0.0	1.0
37	AR98088-1-1	2.0	3	2.5	0.5	3.5
38	NC05-21090	1.7	1	0.0	0.0	1.5
39	NC05-20276	0.0	0	3.5	0.0	5.0
40	NC05-19684	0.7	0	1.0	0.0	6.0
LOCATION MEANS	1.4	1.6	3.5	0.5	3.9	
GROWTH STAGE / DATE				May 22	May 12	

POWDERY MILDEW

Blacksburg

VA

Griffey

VA-PM 2008-09

Isolate Bulk

							Pm Isolate		
GH (0-4)			entry	Line	Pm gene	Habit	source	Composite	Rxn Type
1	AGS 2000	23						0-4	
2	Pioneer Brand 26R61	0;	1	CI 14114	1a	W	Pmdiff 08_K_h plot 1	0;	R
3	Coker 9553	4	2	Weihenstephan I	1c	S	Pmdiff 08_K_h plot 2	4	S
4	VA02W-555	23	3	CI 14118	2	W	Pmdiff 08_K_h plot 3	4	S
5	MO011126	34	4	CI 14120	3a	W	Pmdiff 08_K_h plot 4	4	S
6	NC04-20814	01-	5	CI 14121	3b	W	Pmdiff 08_K_h plot 5	4	S
7	LA01140D-70	12	6	CI 14122	3c	W	Pmdiff 08_K_h plot 6	4	S
8	TN802	4	7	Ralle	3d	S	Pmdiff 08_K_h plot 7	12-	MR
9	TN501	3	9	W176	3e	S	Pmdiff 08_K_h plot 8	4	S
10	W990002K1	3	10	CI 15888	3f	W	Pmdiff 08_K_h plot 9	4	S
11	W980031K1	0;	11	Aristide	3g	W	Pmdiff 08_K_h plot 10	4	S
12	W980031L1	4	12	CI 14124	4a	W	Pmdiff 08_K_h plot 11	4	S
13	GA031238-DH7-7E34	0	13	Ronos	4b	W	Pmdiff 08_K_h plot 12	4	S
14	GA001170-7E26	0;	14	CI 14125	5a	W	Pmdiff 08_K_h plot 13	4	S
15	GA001169-7E15	0;	15	Kormoran	5b	W	Pmdiff 08_K_h plot 14	4	S
16	GA001492-7E9	4	16	I5	5d	W&S	Pmdiff 08_K_h plot 15	;12cn	MR
17	MD01W233-07-1	0;	17	Coker 747	6	W	Pmdiff 08_K_h plot 16	34	S
18	MD00W53-07-1	0;	18	Transec	7	S	Pmdiff 08_K_h plot 17	3	MS
19	G89270	4	19	Kavkaz	8	W	Pmdiff 08_K_h plot 18	3	MS
20	G89283	3	20	N14	9	W	Pmdiff 08_K_h plot 19	4	S
21	G89267	4	21	Wembley	12	S	Pmdiff 08_K_h plot 20	1=	R
22	B040798	3	22	Pm13	13	S	08GH	0;	R
23	D05-6189	4	23	Pm16	16	W	Pmdiff 08_K_h plot 22	;1=	R
24	D05*6441	4	24	Amigo	17	W	Pmdiff 08_K_h plot 23	1=	R
25	FL01029-K1	23	25	DH2	21	S	Pmdiff 08_K_h plot 25	0;	R
26	Z03-0496	12	26	NC96BGTA5	25	W	Pmdiff 08_K_h plot 26	;1=	R
27	ARS03-5358	0;tr3	27	NC97BGTD7	34	W	Pmdiff 08_K_h plot 27	23-	I
28	ARS05-0443	0;	28	NC96BGTD3	35	W	Pmdiff 08_K_h plot 28	23-	I
29	VA04W-90	0;tr3	29	NC99BGTAG11	37	W	Pmdiff 08_K_h plot 29	0;	R
30	VA05W-139	4	30	CI 15520	unknown	W	Pmdiff 08_K_h plot 30	34-	S
31	VA06W-392	23	31	CI 17339	unknown	W	Pmdiff 08_K_h plot 31	4	S
32	VA05W-251	12	32	NC96BGTA4	unknown	W	Pmdiff 08_K_h plot 32	23-	I
33	LA01034D-235-1	23	33	NC96BGTA6	unknown	W	Pmdiff 08_K_h plot 33	12	MR
34	LA01029D-139-3	12	34	NC96BGTD2	unknown	W	Pmdiff 08_K_h plot 34	12+	MR
35	LA01139D-56-1	3	35	NC96NGTD1	unknown	W	Pmdiff 08_K_h plot 35	23	I
36	AR96052-4-3	01tr3	36	NC97BGTAB10	unknown	W	Pmdiff 08_K_h plot 36	12	MR
37	AR98088-1-1	23	37	NC97BGTAB9	unknown	W	Pmdiff 08_K_h plot 37	34	S
38	NC05-21090	4	38	NC97BGTD8	unknown	W	Pmdiff 08_K_h plot 38	2	IMR
39	NC05-20276	23	39	NC06BGTAG12	unknown	W	Pmdiff 08_K_h plot 39	0;	R
40	NC05-19684	0;tr3	40	NC06BGTAG13	unknown	W	Pmdiff 08_K_h plot 40	0;cn	R

VIRUSES

	Belle Mina	Tipton	Owensville	Kinston	Blacksburg	
	AL	IN	IN	NC	VA	
	Glass	Brown	Fogleman	Murphy	Griffey	
	BYDV	WSSMV	WSSMV	BYDV	BYDV	
	% plants affected	0-9	0-9	0-9		
1	AGS 2000	53	3.0	8.0	3.0	1.0
2	Pioneer Brand 26R61	60	3.0	1.4	3.0	0.5
3	Coker 9553	63	3.0	7.2	3.5	0.0
4	VA02W-555	73	2.0	2.0	2.5	0.0
5	MO011126	67	1.5	2.7	3.5	0.0
6	NC04-20814	63	1.5	4.2	2.0	0.5
7	LA01140D-70	57	2.5	6.5	2.5	2.0
8	TN802	67	3.0	7.2	4.0	0.0
9	TN501	43	2.0	1.7	4.0	0.5
10	W990002K1	77	2.0	6.5	3.0	1.0
11	W980031K1	63	3.0	1.2	3.0	0.5
12	W980031L1	67	3.0	7.2	3.5	0.0
13	GA031238-DH7-7E34	70	3.0	7.7	5.0	1.0
14	GA001170-7E26	70	1.5	4.8	4.0	0.0
15	GA001169-7E15	67	4.0	7.4	4.5	3.0
16	GA001492-7E9	70	2.0	8.2	3.5	0.0
17	MD01W233-07-1	67	1.5	6.2	3.0	0.5
18	MD00W53-07-1	53	1.5	6.7	5.5	1.0
19	G89270	73	2.0	6.0	2.5	0.5
20	G89283	67	3.5	6.7	3.5	1.5
21	G89267	47	2.0	6.2	4.0	0.0
22	B040798	70	4.0	2.2	1.5	0.0
23	D05-6189	70	3.0	6.5	5.5	1.0
24	D05*6441	70	2.0	5.5	7.0	0.0
25	FL01029-K1	57	3.0	6.8	2.5	0.0
26	Z03-0496	80	2.5	1.4	6.5	1.5
27	ARS03-5358	53	3.0	5.0	5.5	0.0
28	ARS05-0443	53	4.5	1.0	4.0	0.5
29	VA04W-90	70	1.5	5.2	3.5	1.0
30	VA05W-139	57	1.5	5.5	2.5	0.0
31	VA06W-392	73	2.5	5.0	4.5	0.0
32	VA05W-251	67	3.0	5.5	1.5	1.0
33	LA01034D-235-1	57	3.0	7.2	3.0	0.5
34	LA01029D-139-3	60	2.0	7.2	2.5	0.0
35	LA01139D-56-1	73	2.5	1.0	4.5	0.0
36	AR96052-4-3	60	6.0	4.7	4.0	2.0
37	AR98088-1-1	73	3.5	5.7	4.0	0.5
38	NC05-21090	60	2.0	4.5	2.0	0.0
39	NC05-20276	77	5.0	5.7	3.5	0.5
40	NC05-19684	57	5.0	0.0	2.5	1.0
LOCATION MEANS	64.3	2.8	5.0	3.6	0.6	
GROWTH STAGE / DATE		June 8	May 12		May 22	

HESSIAN FLY

		W Lafayette IN Cambron				Griffin GA Johnson	Plains GA Johnson
		BIO C	BIO D	BIO O	BIO L		
		R-S	R-S	R-S	R-S	%	%
1	AGS 2000	0-12	0-13	10-3	0-17	0	2
2	Pioneer Brand 26R61	0-16	0-14	15-0	0-16	0	0
3	Coker 9553	0-12	0-14	8-6	0-16	32	16
4	VA02W-555	0-13	0-12	0-15	0-15	20	14
5	MO011126	0-14	0-13	9-7	0-18	20	30
6	NC04-20814	0-14	0-15	0-12	0-18	16	6
7	LA01140D-70	0-12	0-12	0-12	0-13	16	20
8	TN802	0-15	0-16	0-20	0-19	24	12
9	TN501	0-17	0-11	0-16	0-20	24	16
10	W990002K1	0-14	0-14	0-15	0-17	44	28
11	W980031K1	0-17	0-13	15-1	0-16	0	0
12	W980031L1	0-18	0-15	16-1	0-17	36	4
13	GA031238-DH7-7E34	7-3	0-13	14-3	0-17	12	0
14	GA001170-7E26	0-7	0-16	8-8	0-15	12	16
15	GA001169-7E15	0-13	0-15	16-0	0-17	0	0
16	GA001492-7E9	0-15	0-15	0-19	0-14	16	14
17	MD01W233-07-1	0-16	0-16	0-12	0-17	16	4
18	MD00W53-07-1	0-18	0-15	0-16	0-16	16	24
19	G89270	0-19	0-14	15-5	0-18	20	8
20	G89283	0-17	0-14	5-9	0-15	20	16
21	G89267	9-5	0-15	0-13	0-18	24	2
22	B040798	0-13	2-13	10-5	15-1	12	0
23	D05-6189	0-10	0-12	0-19	0-17	28	14
24	D05*6441	0-13	0-16	0-14	0-17	16	40
25	FL01029-K1	0-12	0-13	13-4	0-14	4	0
26	Z03-0496	8-6	0-14	7-11	0-17	36	16
27	ARS03-5358	0-11	0-13	9-4	11-3	0	10
28	ARS05-0443	0-12	0-12	0-15	0-18	36	18
29	VA04W-90	8-11	0-14	0-15	0-15	4	6
30	VA05W-139	0-11	0-18	0-16	0-15	32	28
31	VA06W-392	0-15	0-14	0-14	0-16	32	14
32	VA05W-251	0-14	0-17	10-6	0-12	8	28
33	LA01034D-235-1	0-7	0-13	0-10	0-14	4	16
34	LA01029D-139-3	0-12	0-15	3-3	0-10	32	8
35	LA01139D-56-1	0-11	0-12	7-4	0-12	8	0
36	AR96052-4-3	9-6	0-13	0-17	0-16	12	10
37	AR98088-1-1	5-7	0-15	8-13	0-20	0	34
38	NC05-21090	7-8	0-17	0-16	0-14	4	10
39	NC05-20276	0-14	3-12	12-5	14-2	0	10
40	NC05-19684	7-10	0-15	0-16	0-18	20	4

ACID SOIL TOLERANCE

		Enid OK Carver	
1	AGS 2000	1	0
2	Pioneer Brand 26R61	3	3
3	Coker 9553	3	2
4	VA02W-555	3	3
5	MO011126	1	1
6	NC04-20814	3	3
7	LA01140D-70	1	0
8	TN802	2	1
9	TN501	1	1
10	W990002K1	1	1
11	W980031K1	3	2
12	W980031L1	0	1
13	GA031238-DH7-7E34	1	1
14	GA001170-7E26	1	1
15	GA001169-7E15	2	1
16	GA001492-7E9	1	0
17	MD01W233-07-1	1	1
18	MD00W53-07-1	1	0
19	G89270	3	3
20	G89283	2	2
21	G89267	3	3
22	B040798	0	0
23	D05-6189	0	1
24	D05*6441	0	0
25	FL01029-K1	1	1
26	Z03-0496	0	1
27	ARS03-5358	5	5
28	ARS05-0443	0	0
29	VA04W-90	0	0
30	VA05W-139	2	1
31	VA06W-392	1	1
32	VA05W-251	1	0
33	LA01034D-235-1	3	2
34	LA01029D-139-3	1	0
35	LA01139D-56-1	2	2
36	AR96052-4-3	0	0
37	AR98088-1-1	1	1
38	NC05-21090	0	2
39	NC05-20276	0	0
40	NC05-19684	2	1
LOCATION MEANS	1.7	1.4	1.2
DATE	Nov. 3	Feb. 6	Mar. 17

FREEZE TEST

Raleigh
NC

Livingston

Survival Rating

1	AGS 2000	0.9
2	Pioneer Brand 26R61	1.7
3	Coker 9553	3.8
4	VA02W-555	0.8
5	MO011126	0.4
6	NC04-20814	3.4
7	LA01140D-70	2.1
8	TN802	0.4
9	TN501	0.6
10	W990002K1	2.1
11	W980031K1	4.3
12	W980031L1	2.2
13	GA031238-DH7-7E34	2.5
14	GA001170-7E26	2.3
15	GA001169-7E15	3.2
16	GA001492-7E9	4.6
17	MD01W233-07-1	2.6
18	MD00W53-07-1	4.2
19	G89270	2.3
20	G89283	3.3
21	G89267	1.2
22	B040798	2.7
23	D05-6189	1.7
24	D05*6441	2.5
25	FL01029-K1	2.6
26	Z03-0496	1.7
27	ARS03-5358	3.0
28	ARS05-0443	0.8
29	VA04W-90	0.9
30	VA05W-139	3.6
31	VA06W-392	2.5
32	VA05W-251	4.0
33	LA01034D-235-1	1.7
34	LA01029D-139-3	2.1
35	LA01139D-56-1	1.3
36	AR96052-4-3	1.8
37	AR98088-1-1	2.1
38	NC05-21090	3.0
39	NC05-20276	1.8
40	NC05-19684	1.9
LOCATION MEANS		2.3

BLACK CHAFF

		Bay
		AR
		Hancock
		0-9
1	AGS 2000	1
2	Pioneer Brand 26R61	2
3	Coker 9553	1
4	VA02W-555	2
5	MO011126	3
6	NC04-20814	2
7	LA01140D-70	2
8	TN802	2
9	TN501	1
10	W990002K1	1
11	W980031K1	2
12	W980031L1	1
13	GA031238-DH7-7E34	1
14	GA001170-7E26	3
15	GA001169-7E15	1
16	GA001492-7E9	1
17	MD01W233-07-1	2
18	MD00W53-07-1	1
19	G89270	2
20	G89283	1
21	G89267	2
22	B040798	1
23	D05-6189	8
24	D05*6441	2
25	FL01029-K1	1
26	Z03-0496	4
27	ARS03-5358	6
28	ARS05-0443	6
29	VA04W-90	1
30	VA05W-139	2
31	VA06W-392	3
32	VA05W-251	1
33	LA01034D-235-1	3
34	LA01029D-139-3	1
35	LA01139D-56-1	2
36	AR96052-4-3	1
37	AR98088-1-1	1
38	NC05-21090	3
39	NC05-20276	2
40	NC05-19684	1
	LOCATION MEANS	2.1

BLACK POINT

		Baton Rouge Winnsboro	
		LA	LA
		Harrison	Harrison
		0-9	0-9
1	AGS 2000	2.5	0.5
2	Pioneer Brand 26R61	6.5	4.0
3	Coker 9553	1.5	0.5
4	VA02W-555	0.5	1.0
5	MO011126	2.0	1.0
6	NC04-20814	1.0	1.0
7	LA01140D-70	2.5	1.5
8	TN802	1.0	0.5
9	TN501	1.0	0.5
10	W990002K1	0.0	1.0
11	W980031K1	5.5	3.5
12	W980031L1	1.0	1.0
13	GA031238-DH7-7E34	1.0	0.5
14	GA001170-7E26	1.0	0.0
15	GA001169-7E15	1.0	0.0
16	GA001492-7E9	0.5	0.0
17	MD01W233-07-1	2.0	3.5
18	MD00W53-07-1	1.0	1.0
19	G89270	0.5	0.5
20	G89283	0.5	0.5
21	G89267	0.0	1.0
22	B040798	1.5	0.5
23	D05-6189	2.0	2.0
24	D05*6441	0.5	1.0
25	FL01029-K1	0.5	1.0
26	Z03-0496	1.5	3.0
27	ARS03-5358	0.5	1.0
28	ARS05-0443	5.0	2.0
29	VA04W-90	0.5	0.5
30	VA05W-139	0.0	0.5
31	VA06W-392	1.5	0.5
32	VA05W-251	0.0	0.0
33	LA01034D-235-1	7.0	0.5
34	LA01029D-139-3	1.0	0.0
35	LA01139D-56-1	3.5	0.5
36	AR96052-4-3	3.0	1.0
37	AR98088-1-1	0.0	0.0
38	NC05-21090	1.0	0.0
39	NC05-20276	1.0	0.5
40	NC05-19684	1.5	1.0
LOCATION MEANS		1.6	1.0

KERNEL WEIGHT (grams)

		Queenstown	Newton
		MD	MS
		Costa	Burgess
		100 kernels	100 kernels
1	AGS 2000	4.0	4.2
2	Pioneer Brand 26R61	3.8	4.2
3	Coker 9553	3.8	4.1
4	VA02W-555	4.2	3.9
5	MO011126	4.3	4.0
6	NC04-20814	3.6	4.0
7	LA01140D-70	3.5	4.0
8	TN802	4.1	3.9
9	TN501	4.1	3.5
10	W990002K1	3.5	3.3
11	W980031K1	3.6	4.5
12	W980031L1	3.6	3.3
13	GA031238-DH7-7E34	3.1	2.9
14	GA001170-7E26	3.5	4.1
15	GA001169-7E15	3.2	3.5
16	GA001492-7E9	3.7	4.2
17	MD01W233-07-1	3.7	3.5
18	MD00W53-07-1	4.6	3.8
19	G89270	3.4	2.9
20	G89283	3.6	3.5
21	G89267	3.2	3.0
22	B040798	3.6	3.3
23	D05-6189	4.2	4.2
24	D05*6441	3.8	3.9
25	FL01029-K1	3.9	3.9
26	Z03-0496	3.5	3.1
27	ARS03-5358	3.6	3.9
28	ARS05-0443	3.5	2.7
29	VA04W-90	3.7	3.9
30	VA05W-139	3.7	3.4
31	VA06W-392	4.0	4.3
32	VA05W-251	4.0	3.8
33	LA01034D-235-1	3.4	3.4
34	LA01029D-139-3	4.1	3.9
35	LA01139D-56-1	3.5	3.3
36	AR96052-4-3	3.6	3.4
37	AR98088-1-1	3.5	3.5
38	NC05-21090	3.7	3.5
39	NC05-20276	3.5	3.4
40	NC05-19684	3.4	3.3
LOCATION MEANS		3.7	3.7

SPRING PHENOTYPE

		Baton Rouge Winnsboro	
		LA	LA
		Harrison	Harrison
		0-9	0-9
1	AGS 2000	5.3	3.3
2	Pioneer Brand 26R61	3.2	3.8
3	Coker 9553	4.8	3.0
4	VA02W-555	5.2	4.5
5	MO011126	6.2	4.0
6	NC04-20814	6.3	4.5
7	LA01140D-70	4.3	3.5
8	TN802	6.8	4.8
9	TN501	5.5	4.5
10	W990002K1	4.2	3.8
11	W980031K1	4.0	3.8
12	W980031L1	5.5	5.0
13	GA031238-DH7-7E34	4.7	3.8
14	GA001170-7E26	2.8	4.0
15	GA001169-7E15	5.0	3.0
16	GA001492-7E9	4.0	3.5
17	MD01W233-07-1	4.8	3.5
18	MD00W53-07-1	4.5	3.5
19	G89270	7.0	5.3
20	G89283	7.7	6.0
21	G89267	6.8	5.0
22	B040798	6.8	5.3
23	D05-6189	5.8	3.5
24	D05*6441	4.2	3.8
25	FL01029-K1	5.2	3.5
26	Z03-0496	5.7	4.5
27	ARS03-5358	5.7	4.5
28	ARS05-0443	5.2	4.5
29	VA04W-90	4.7	3.5
30	VA05W-139	4.2	4.0
31	VA06W-392	4.5	3.8
32	VA05W-251	4.5	3.5
33	LA01034D-235-1	3.0	3.5
34	LA01029D-139-3	5.2	3.3
35	LA01139D-56-1	3.5	3.5
36	AR96052-4-3	6.0	4.0
37	AR98088-1-1	5.5	3.8
38	NC05-21090	5.3	4.8
39	NC05-20276	6.0	4.0
40	NC05-19684	6.7	4.8
LOCATION MEANS		5.2	4.0

MARKER DATA

Raleigh
NC

Brown-Guedira

		Rht1	Rht2	Rht8	Ppd-D1a	Fhb1	Ernie 3BSc	2DL-Wuhan1
1	AGS 2000	no	yes		no	no	no	no
2	Pioneer Brand 26R61	no	yes	no	yes	no	no	no
3	Coker 9553	no	yes	no	yes	no	no	no
4	VA02W-555	no	yes	no	yes	yes	yes	no
5	MO011126	no	yes	no	yes	no	no	no
6	NC04-20814	yes	no		yes	no	?	no
7	LA01140D-70	no	yes		yes	no	no	no
8	TN802	no	yes		yes	no	no	no
9	TN501	no	no		yes	no	no	no
10	W990002K1	no	yes		no	no	no	no
11	W980031K1	no	yes		yes	no	no	no
12	W980031L1	no	yes		yes	no	no	no
13	GA031238-DH7-7E34	no	yes		yes	no	no	no
14	GA001170-7E26	no	yes		yes	no	no	no
15	GA001169-7E15	no	yes		no	no	no	no
16	GA001492-7E9	no	yes		yes	no	no	no
17	MD01W233-07-1	no	yes		hetero	no	no	no
18	MD00W53-07-1	no	yes		no	yes	?	no
19	G89270	yes	no		no	no	?	no
20	G89283	yes	no		no	no	yes	no
21	G89267	yes	no		no	no	yes	no
22	B040798	yes	no	no	yes	no	no	no
23	D05-6189	yes	no	no	hetero	no	no	no
24	D05*6441	no	yes	no	yes	no	no	no
25	FL01029-K1	no	yes	hetero	hetero	no	no	no
26	Z03-0496	yes	no	no	yes	no	no	no
27	ARS03-5358	no	yes	no	no	no	no	no
28	ARS05-0443	yes	no	no	no	no	?	no
29	VA04W-90	no	yes	no	yes	no	?	no
30	VA05W-139	no	yes	no	yes	no	no	no
31	VA06W-392	no	yes	no	no	no	no	no
32	VA05W-251	no	yes	no	yes	hetero	?	no
33	LA01034D-235-1	no	yes	yes	yes	no	no	no
34	LA01029D-139-3	no	yes	no	no	no	no	no
35	LA01139D-56-1	no	yes	no	yes	no	no	no
36	AR96052-4-3	no	yes	no	yes	no	no	no
37	AR98088-1-1	no	yes	no	hetero	no	no	no
38	NC05-21090	no	yes	no	yes	no	?	no
39	NC05-20276	no	yes	no	no	no	no	no
40	NC05-19684	no	yes	no	yes	no	no	no

MARKER DATA

Raleigh
NC

Brown-Guedira

		Ernie 5AS	Ning7840 5AS	Ernie 4B	Ernie 2B	Sr36	Sr24/Lr24
1	AGS 2000	no	no	no	no	no	no
2	Pioneer Brand 26R61	no	no	no	no	no	no
3	Coker 9553	no	no	no	no	no	no
4	VA02W-555	no	no	no	yes	yes	no
5	MO011126	no	no	no	no	no	no
6	NC04-20814	no	no	no	yes	yes	no
7	LA01140D-70	no	no	no	no	no	no
8	TN802	no	no	no	no	no	no
9	TN501	hetero	no	no	no	no	no
10	W990002K1	no	no	no	yes	yes	no
11	W980031K1	no	no	no	no	no	no
12	W980031L1	no	no	no	no	no	no
13	GA031238-DH7-7E34	no	no	no	yes	yes	no
14	GA001170-7E26	no	no	no	no	no	no
15	GA001169-7E15	no	no	no	no	no	yes
16	GA001492-7E9	no	no	yes?	no	no	no
17	MD01W233-07-1	hetero	no	no	no	no	yes
18	MD00W53-07-1	no	no	no	no	no	yes
19	G89270	no	no	no	no	no	no
20	G89283	no	no	no	no	no	no
21	G89267	no	no	yes?	yes	yes	no
22	B040798	no	no	no	no	no	no
23	D05-6189	no	no	no	no	no	no
24	D05*6441	no	no	no	yes	yes	no
25	FL01029-K1	no	no	no	hetero	hetero	no
26	Z03-0496	yes	no	no	no	no	no
27	ARS03-5358	no	no	no	yes	yes	no
28	ARS05-0443	no	no	no	no	no	no
29	VA04W-90	no	no	no	no	no	no
30	VA05W-139	no	no	no	no	no	no
31	VA06W-392	no	no	no	no	no	no
32	VA05W-251	no	no	no	no	no	no
33	LA01034D-235-1	no	no	no	no	no	no
34	LA01029D-139-3	no	no	no	no	no	no
35	LA01139D-56-1	no	no	no	yes	yes	no
36	AR96052-4-3	no	no	no	yes	yes	no
37	AR98088-1-1	yes	no	no	no	no	no
38	NC05-21090	no	no	no	yes	yes	no
39	NC05-20276	yes?	no	no	yes	yes	no
40	NC05-19684	no	no	no	yes	yes	no

MARKER DATA

Raleigh
NC

Brown-Guedira

		1RS translocation	H13	H9	Lr37/Yr17/Sr38	BVD2/3	Lr34/Yr18
1	AGS 2000	no	no	no	no		no
2	Pioneer Brand 26R61	1RS:1BL	no	no	no	no	no
3	Coker 9553	no	no	no	no	no	no
4	VA02W-555	no	no	no	no	no	no
5	MO011126	no	no	no	no	no	no
6	NC04-20814	no	no	no	no	no	no
7	LA01140D-70	no	no	no	yes	no	no
8	TN802	no	no	no	no	no	no
9	TN501	no	no	no	no	no	no
10	W990002K1	no	no	no	yes	no	no
11	W980031K1	1RS:1BL	no	no	no	no	no
12	W980031L1	no	no	no	no	no	no
13	GA031238-DH7-7E34	no	no	no	yes	no	no
14	GA001170-7E26	1RS:1BL	no	no	no	no	no
15	GA001169-7E15	no	no		no	no	no
16	GA001492-7E9	no	no	no	no	no	no
17	MD01W233-07-1	no	no	no	no	no	no
18	MD00W53-07-1	no	no		no	no	no
19	G89270	no	no	no	no	no	no
20	G89283	no	no	no	no	no	no
21	G89267	no	no	no	no	no	no
22	B040798	no	no	no	no	no	no
23	D05-6189	no	no	no	yes	no	no
24	D05*6441	no	no	no	no	no	no
25	FL01029-K1	no	no	no	no	no	no
26	Z03-0496	no	no	no	no	no	no
27	ARS03-5358	1RS:1AL	no	no	no	no	no
28	ARS05-0443	no	no	no	yes	no	no
29	VA04W-90	no	no	no	no	no	no
30	VA05W-139	no	no	no	no	no	no
31	VA06W-392	no	no	no	no	no	no
32	VA05W-251	no	no	no	no	no	no
33	LA01034D-235-1	no	no	no	yes	no	no
34	LA01029D-139-3	no	no	no	yes	no	no
35	LA01139D-56-1	no	no	no	yes	no	no
36	AR96052-4-3	no	no	no	no	no	no
37	AR98088-1-1	no	no	no	no	no	no
38	NC05-21090	no	no	no	yes	no	no
39	NC05-20276	no	no	no	no	no	no
40	NC05-19684	no	yes	no	no	no	no

MARKER DATA

Raleigh
NC
Brown-Guedira

	Bx7 overexpressing	Glu-D1	
1	AGS 2000	no	5+10
2	Pioneer Brand 26R61	yes	5+10
3	Coker 9553	no	2+12
4	VA02W-555	no	2+12
5	MO011126	yes	2+12
6	NC04-20814	no	2+12
7	LA01140D-70	yes	5+10
8	TN802	no	hetero
9	TN501	no	2+12
10	W990002K1	no	2+12
11	W980031K1	yes	5+10
12	W980031L1	no	2+12
13	GA031238-DH7-7E34	no	2+12
14	GA001170-7E26	yes	5+10
15	GA001169-7E15	no	2+12
16	GA001492-7E9	no	5+10
17	MD01W233-07-1	no	2+12
18	MD00W53-07-1	no	2+12
19	G89270	no	5+10
20	G89283	no	5+10
21	G89267	no	2+12
22	B040798	yes	2+12
23	D05-6189	yes	2+12
24	D05*6441	no	hetero
25	FL01029-K1	no	hetero
26	Z03-0496	no	2+12
27	ARS03-5358	no	5+10
28	ARS05-0443	no	5+10
29	VA04W-90	no	2+12
30	VA05W-139	no	5+10
31	VA06W-392	no	2+12
32	VA05W-251	no	2+12
33	LA01034D-235-1	yes	2+12
34	LA01029D-139-3	no	2+12
35	LA01139D-56-1	no	5+10
36	AR96052-4-3	no	5+10
37	AR98088-1-1	no	2+12
38	NC05-21090	no	2+12
39	NC05-20276	no	2+12
40	NC05-19684	no	2+12

**2009 Crop
Advanced Milling and Baking Evaluation
Set 2009 A07**

Coastal Samples: Entries # 920921 – 920960

A total of 40 samples were grown at four locations (Blacksburg, VA, Greenville, MS, Plains, GA, Winnsboro, LA) for a Coastal Regional Nursery evaluation. The standard quality data was compared to the “historical average” for the cultivar AGS 2000, and quality scores for all entries are adjusted to this average. Of the 831 cultivars in the SWQL database of Allis-milled cultivars, AGS 2000 ranks 25th for Milling Score based on data from 5 millings. The following table compares the checks, AGS 2000, Pioneer 26R61, and Coker 9553 with their “historical data” from the Advanced Milling databases. We have coded in blue text the values for the checks that are within two standard deviations of the mean of the previous observations in the micro database for that cultivar. Values in black are outside of the normal range observed for the check cultivar.

The samples showed slight signs of FHB infected kernels and pre-harvest sprouting was obviously present in many of the samples. Weathering played a role within this nursery based on the low test weights, milling yield, and elevated softness equivalent when compared with historical values for the checks. Gluten strength is greater than average as indicated by lactic acid SRC. The three checks provided had a cookie diameter that was better than average, which was resulted in elevated baking quality scores. The values for flour quality measures among the checks were consistent with expectations from previous evaluations and the relative rankings of the cultivar. Therefore, we expect the results of the evaluations to be predictive of future performance of these breeding lines.

Interior Entries # 920881 – 920920

A total of 40 samples were grown at three locations (Warsaw, VA, Battle Ground, IN, Belle Mina, AL) for an Interior Regional Nursery evaluation. The standard quality data was compared to the “historical average” for the cultivar AGS 2000, and quality scores for all entries are adjusted to this average. Of the 831 cultivars in the SWQL database of Allis-milled cultivars, AGS 2000 ranks 25th for Milling Score based on data from 5 millings. The following table compares the checks, AGS 2000, Pioneer 26R61, and Coker 9553 with their “historical data” from the Advanced Milling databases. We have coded in blue text the values for the checks that are within two standard deviations of the mean of the previous observations in the micro database for that cultivar. Values in black are outside of the normal range observed for the check cultivar.

The samples showed slight signs of FHB infected kernels, but pre-harvest sprouting was not obviously present in this nursery. Weathering was evident within this set due to the evaluated gluten strength of lactic acid SRC and the reduced test weight and milling yields. In general, the softness equivalent percentage increased as did the protein values. The diameter of the cookie is constant with the sucrose SRC values as the sugar snap cookie method has been modified. However, the three checks, AGS 2000, Pioneer 26R61, and Coker 9553 were consistent with the historical data from the advanced milling data set as it was within two standard deviations of the mean of its Advanced Milling database average. The values for flour quality measures among the checks were consistent with expectations from previous evaluations and the relative rankings of the cultivar. Therefore, we expect the results of the evaluations to be predictive of future performance of these breeding lines.

Coastal

ENTRY	MILLING	BAKING	SOFT.	TEST	ADJ.	SOFT.	FLOUR	LACTIC	SUCROSE	COOKIE	TOP
	QUALITY	QUALITY	EQUIV.	WT.	YIELD	EQUIV.	PROT.	ACID	SRC	DIAM.	GR.
	SCORE	SCORE	SCORE	LB/BU	%	%	%	SRC	%	CM.	
Nursery Average	76.03	57.49	57.02	58.18	69.2	61.12	9.1	124.46	99.8	18.52	3.48
Allis Database - AGS 2000	85.91	69.87	62.91	62.4	78.96		9.1	90		17.9	
AGS 2000	85.91	69.87	62.91	59.77	71.17	63.19	9.35	120.47	98.87	18.89	3
AGS 2000 - Average	79.25	54.34	69.13	62.81	72.14	57.59	8.86	103.34	92.31	17.87	3.82
AGS 2000 - Standard Deviation	7.09	13.41	10.25	2.55	1.05	3.41	0.63	6.81	2.64	0.44	1.24
Pioneer 26R61	75.42	44.69	58.37	59.3	69.07	61.6	9.66	125.98	104.6	18.13	3
Pioneer 26R61 - Average	68.35	43.99	62.56	62.5	69.58	55.19	9.26	109.68	92.79	17.49	3.33
Pioneer 26R61 - Standard Deviation	7.32	11.01	10.66	2.59	1.3	3.47	0.54	6.47	3.93	0.37	1.32
Coker 9553	72.76	53.17	64.08	59.89	68.54	63.6	9.26	123.76	99.99	18.39	3
Coker 9553 - Average	54.88	44.78	69.03	62.85	68.99	58.13	9.15	115.25	102.77	17.89	4.25
Coker 9553 - Standard Deviation	8.34	8.47	4.47	1.25	0.76	1.44	0.42	6.73	5.8	0.55	2.63

Conditional formatting set:

BOLD = 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

Interior

ENTRY	MILLING	BAKING	SOFT.	TEST	ADJ.	SOFT.	FLOUR	LACTIC	SUCROSE	COOKIE	TOP
	QUALITY	QUALITY	EQUIV.	WT.	YIELD	EQUIV.	PROT.	ACID	SRC	DIAM.	GR.
	SCORE	SCORE	SCORE	LB/BU	%	%	%	SRC	%	CM.	
Nursery Average	71.68	56.15	61.08	60.13	69.59	58.79	8.98	118.83	96.99	18.72	4.38
Allis Database - AGS 2000	85.91	69.87	62.91	62.4	78.96		9.1	90		17.9	
AGS 2000	85.91	69.87	62.91	60.95	72.43	59.43	9.11	104.53	92.71	19.13	3
AGS 2000 - Average	79.25	54.34	69.13	62.81	72.14	57.59	8.86	103.34	92.31	17.87	3.82
AGS 2000 - Standard Deviation	7.09	13.41	10.25	2.55	1.05	3.41	0.63	6.81	2.64	0.44	1.24
Pioneer 26R61	69.91	36.15	48.72	62.33	69.24	54.46	9.65	113.53	97.47	18.12	3
Pioneer 26R61 - Average	68.35	43.99	62.56	62.5	69.58	55.19	9.26	109.68	92.79	17.49	3.33
Pioneer 26R61 - Standard Deviation	7.32	11.01	10.66	2.59	1.3	3.47	0.54	6.47	3.93	0.37	1.32
Coker 9553	63.38	51.98	64.77	61.02	67.94	60.08	9.42	127.59	95.87	18.59	4
Coker 9553 - Average	54.88	44.78	69.03	62.85	68.99	58.13	9.15	115.25	102.77	17.89	4.25
Coker 9553 - Standard Deviation	8.34	8.47	4.47	1.25	0.76	1.44	0.42	6.73	5.8	0.55	2.63

Conditional formatting set:

BOLD = 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

Comments from Ed Souza

The Uniform Southern Nursery is an important evaluation of breeding materials that will be release as cultivars, used in crossing for future cultivars, and as a dataset collectively for future genetic studies. The two regional composites within the Uniform Southern Nursery differed from each other primarily with respect to the degree of sprouting and weathering, which was much more obvious in its affects on quality in the coastal composite than it was on the interior composite.

My comments will be directed primarily to the average of the two composite represented in the summary file included with the reports for the individual composites. Based on analysis of variance, test weight and top grain score were not significantly different among genotypes for the average of two evaluations. Top-grain score is rarely significantly different unless obviously unsuited genotypes are included in the cookie bake analysis, something that rarely occurs at this stage of testing. Test weight is strongly affected by weathering. The differential weathering between the two composites led to very large error terms for this trait. Although, it is not uncommon for this type of analysis to produce a non-significant genetic effect for test weight. In the two year analysis, also included in the summary file, test weight had one of the smaller F-values of the quality characteristics assessed in this study.

The quality measure with the largest F-values for genotype was found for adjusted flour milling yield. The standard error of the two location mean for flour yield was 0.3 g/100 g. USG 3555 and Coker 9553 are relatively small flour yield genotypes. A line with significantly less flour yield than these lines likely will be deficient for flour yield if released as cultivars. This would include lines with 67.5 g/100 g or less flour extraction, including: MD00W53-07-1, Z03-0496, ARS05-0443, VA05W-139, and NC05-20276.

Softness equivalent in many datasets is highly heritable when weathering is absent. Weathering tends to increase the softness of the grain as it reduces the test weight of the grain. Both trends were present in comparing the Coastal samples to the Interior samples. None-the-less, the F-value for softness equivalent was highly significant and values that are different by more than 2.5 g/100 g are likely genetically different for their level of milling softness. None of the samples in this set were genetically hard. The check cultivar with the lowest softness equivalent was Pioneer 26R61, which is normally acceptable for softness equivalent. Selection among lines for greater softness equivalent will improve the overall quality of the lines. Genotypes like TN501 and MD00W53-07-1 with very low softness equivalent would likely perform poorly in cakes and similar high sugar baked products.

Many of the traits evaluated in this analysis are correlated to each other and the best quality genotypes will have favorable combinations of milling yield, softness equivalent, cookie diameter, and sucrose SRC values. Sequentially selecting the genotypes in the Uniform Southern Nursery, based on those criteria and in that order can identify the best overall genotypes in the set. Based on the sequential sorting of the lines, lines with quality similar or better than AGS 2000, in this evaluation were: LA01140D-70, GA001492-7E9, B040798, and G89270. These lines represent improvements to the overall quality of the soft red winter wheat germplasm pool and could be used in crossing to improve the quality of progeny.

Genotypes with strong lactic acid values can have extra value in the manufacture of certain leavened products like crackers. Weathering often falsely elevates lactic acid SRC values, a measure of gluten strength. Using the unweathered values from the Interior set as a selection criteria for gluten strength, two lines have both good milling characteristics and large lactic acid SRC values, ARS03-5358 and NC05-19684. These lines may have added value for food manufacturers.

Please contact me if you have questions concerning this trial.

Best regards,
Edward Souza

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

COASTAL			MILLING QUALITY SCORE	BAKING QUALITY SCORE	SOFT. EQUIV. SCORE	MICRO T.W. LB/BU	FLOUR YIELD %				
LAB NO.	Standard = AGS 2000		85.91	A	69.87	C	62.91	C	59.77	71.17	
920921	1	AGS 2000	85.9	A	69.9	C	62.9	C	59.8	71.2	
920922	2	Pioneer Brand 26R61	75.4	B	44.7	E	58.4	D	59.3	69.1	Q
920923	3	Coker 9553	72.8	B	53.2	D	64.1	C	59.9	68.5	Q
920924	4	USG 3555	76.4	B	43.3	E	57.0	D	57.9	*	69.3 Q
920925	5	MO011126	88.2	A	74.9	B	57.4	D	57.9	*	71.6
920926	6	NC04-20814	71.5	B	33.6	F	56.8	D	57.9	*	68.3 Q
920927	7	LA01140D-70	88.1	A	77.5	B	61.3	C	58.0	*	71.6
920928	8	TN802	75.3	B	52.9	D	62.2	C	58.0	*	69.1 Q
920929	9	TN501	71.2	B	26.3	F	40.8	E	58.0	*	68.2 Q
920930	10	W990002K1	81.7	A	48.2	E	58.4	D	58.0	*	70.3 *
920931	11	W980031K1	73.6	B	54.6	D	54.1	D	58.0	*	68.7 Q
920932	12	W980031L1	70.5	B	33.3	F	63.1	C	58.0	*	68.1 Q
920933	13	GA031238-DH7-7E34	88.1	A	45.9	E	44.8	E	58.0	*	71.6
920934	14	GA001170-7E26	76.4	B	50.9	D	49.0	E	58.0	*	69.3 Q
920935	15	GA001169-7E15	80.2	A	44.3	E	54.3	D	58.0	*	70.0 *
920936	16	GA001492-7E9	91.3	A	58.2	D	61.7	C	58.0	*	72.2
920937	17	MD01W233-07-1	69.0	C	55.9	D	51.3	D	58.0	*	67.8 Q
920938	18	MD00W53-07-1	64.9	C	40.9	E	37.1	F	58.0	*	67.0 Q
920939	19	G89270	80.8	A	79.5	B	72.6	B	58.0	*	70.1 *
920940	20	G89283	74.9	B	74.6	B	66.2	C	58.1	*	69.0 Q
920941	21	G89267	72.6	B	55.0	D	57.9	D	58.1	*	68.5 Q
920942	22	B040798	81.4	A	74.3	B	59.1	D	58.1	*	70.3 *
920943	23	D05-6189	73.2	B	76.3	B	63.9	C	58.1	*	68.6 Q
920944	24	D05*6441	79.8	B	77.2	B	58.9	D	58.1	*	69.9 *
920945	25	FL01029-K1	78.2	B	41.0	E	68.2	C	58.1	*	69.6 Q
920946	26	Z03-0496	65.9	C	38.4	F	48.5	E	58.1	*	67.2 Q
920947	27	ARS03-5358	82.7	A	73.8	B	57.5	D	58.1	*	70.5
920948	28	ARS05-0443	62.7	C	42.6	E	60.4	C	58.1	*	66.5 Q
920949	29	VA04W-90	74.9	B	53.3	D	67.5	C	58.1	*	69.0 Q
920950	30	VA05W-139	64.5	C	33.3	F	44.5	E	58.1	*	66.9 Q
920951	31	VA06W-392	74.1	B	77.8	B	54.6	D	58.1	*	68.8 Q
920952	32	VA05W-251	73.2	B	68.4	C	41.2	E	58.1	*	68.6 Q
920953	33	LA01034D-235-1	78.8	B	81.3	A	49.3	E	58.1	*	69.7 *
920954	34	LA01029D-139-3	77.4	B	38.9	F	65.2	C	58.2	*	69.5 Q
920955	35	LA01139D-56-1	89.9	A	86.9	A	53.0	D	58.2	*	72.0
920956	36	AR96052-4-3	66.9	C	62.3	C	57.2	D	58.2	*	67.4 Q
920957	37	AR98088-1-1	75.8	B	83.2	A	59.7	D	58.2	*	69.1 Q
920958	38	NC05-21090	72.1	B	51.7	D	62.4	C	58.2	*	68.4 Q
920959	39	NC05-20276	63.9	C	51.0	D	54.1	D	58.2	*	66.8 Q
920960	40	NC05-19684	77.3	B	70.4	B	63.9	C	58.2	*	69.5 Q
average			76.03		57.49		57.02		58.18		69.20

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

COASTAL		SOFT. EQUIV. %	FLOUR PROT. %	LACTIC ACID SRC	SUCROSE SRC %	COOKIE DIAM. CM.	TOP GR.
Standard = AGS 2000		63.19	9.35	120.47	98.87	18.89	3.00
1	AGS 2000	63.2	9.35	120.5	98.9	18.89	3
2	Pioneer Brand 26R61	61.6	9.66	126.0	104.6	18.13	Q 3
3	Coker 9553	63.6	9.26	123.8	100.0	18.39	* 3
4	USG 3555	61.1	9.10	124.0	102.3	18.09	Q 3
5	MO011126	61.3	9.16	121.5	94.0	19.04	7
6	NC04-20814	61.1	8.92	136.1	100.7	17.80	Q 3
7	LA01140D-70	62.6	9.23	129.9	92.1	19.12	3
8	TN802	62.9	8.37	128.5	104.6	18.38	Q 4
9	TN501	55.5	Q 9.95	98.1	105.0	17.58	Q 2
10	W990002K1	61.6	9.43	122.0	103.3	18.24	Q 3
11	W980031K1	60.1	9.54	124.5	97.9	18.43	* 3
12	W980031L1	63.3	9.10	141.3	109.8	17.79	Q 3
13	GA031238-DH7-7E34	56.9	* 9.00	134.3	95.8	18.17	Q 3
14	GA001170-7E26	58.3	* 8.93	128.8	106.4	18.32	Q 1
15	GA001169-7E15	60.2	8.64	132.2	105.0	18.12	Q 3
16	GA001492-7E9	62.8	9.05	128.0	91.6	18.54	* 3
17	MD01W233-07-1	59.1	* 9.86	116.2	100.6	18.47	* 4
18	MD00W53-07-1	54.2	Q 9.54	109.4	103.0	18.02	Q 7
19	G89270	66.6	8.79	105.1	89.1	19.18	4
20	G89283	64.3	8.69	141.9	101.3	19.03	4
21	G89267	61.4	8.74	119.3	97.5	18.44	* 5
22	B040798	61.8	9.13	116.2	93.0	19.02	3
23	D05-6189	63.5	8.91	108.0	94.0	19.08	5
24	D05*6441	61.8	9.21	132.6	98.6	19.11	2
25	FL01029-K1	65.1	8.80	123.8	105.6	18.02	Q 4
26	Z03-0496	58.1	* 8.81	119.4	104.2	17.95	Q 2
27	ARS03-5358	61.3	9.58	139.4	96.3	19.01	4
28	ARS05-0443	62.3	9.29	138.4	110.1	18.07	Q 3
29	VA04W-90	64.8	8.55	129.7	102.6	18.39	* 3
30	VA05W-139	56.7	* 9.00	149.3	106.4	17.79	Q 1
31	VA06W-392	60.3	9.12	109.9	93.0	19.13	6
32	VA05W-251	55.6	Q 8.44	103.8	98.4	18.85	7
33	LA01034D-235-1	58.4	* 8.70	118.2	92.2	19.23	3
34	LA01029D-139-3	64.0	8.98	125.7	105.5	17.96	Q 1
35	LA01139D-56-1	59.7	* 9.09	126.3	89.7	19.40	4
36	AR96052-4-3	61.2	9.18	136.6	98.0	18.66	2
37	AR98088-1-1	62.1	8.55	105.8	95.2	19.29	7
38	NC05-21090	63.0	8.71	128.7	98.8	18.34	Q 3
39	NC05-20276	60.1	10.44	* 124.8	103.0	18.32	Q 2
40	NC05-19684	63.5	9.26	130.4	104.1	18.91	3
		61.12	9.10	124.46	99.80	18.52	3.48

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

COASTAL		GRAIN CONDITION			BLACK POINT	SHRIVELING AFTER CLEANING
		FHB	WEATHERING	SPROUTING		
Standard = AGS 2000		(0-3)	(Yes/No)	(0-3)	(0-3)	(0-3)
1	AGS 2000	1	?	1		1
2	Pioneer Brand 26R61	1	?	1-2		1
3	Coker 9553	1	n	1	1	1
4	USG 3555	1	y	1-2		1-2
5	MO011126	1	n	1		1
6	NC04-20814	1	y	1		1
7	LA01140D-70	1	y	1	1	1
8	TN802	1	y	1-2		2
9	TN501	1	y	1		1
10	W990002K1	1	y	1		1
11	W980031K1	1	y	1-2	1	2
12	W980031L1	1	y	1	1	1-2
13	GA031238-DH7-7E34	1	y	1	0	1
14	GA001170-7E26	1	?	2	0	1
15	GA001169-7E15	1	?	1-2	1	0
16	GA001492-7E9	1	?	1-2	0	1
17	MD01W233-07-1	1	y	2	1	1
18	MD00W53-07-1	1	y	2	?	1
19	G89270	1	?	1	0	0
20	G89283	0	n	0	0	1
21	G89267	1	y	1	1	0
22	B040798	1	y	1	0	0
23	D05-6189	1	y	1	1	1
24	D05*6441	1	y	1	0	1
25	FL01029-K1	1	?	1	0	1
26	Z03-0496	1	y	1	0	1
27	ARS03-5358	1	?	1	0	1
28	ARS05-0443	2	y	1	0	1
29	VA04W-90	1	n	1	0	0
30	VA05W-139	1	y	1	0	1
31	VA06W-392	1	?	1	0	1
32	VA05W-251	1	y	1	0	1
33	LA01034D-235-1	1	y	1	1	1
34	LA01029D-139-3	1	?	1	0	1
35	LA01139D-56-1	1	?	1	0	1
36	AR96052-4-3	1	y	1	0	1
37	AR98088-1-1	1	?	1	0	1
38	NC05-21090	1	?	1	0	0
39	NC05-20276	1	n	1	0	1
40	NC05-19684	1	?	1	0	1

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

	STD. DATA		AVG. DATA				
MILLING QUALITY SCORE	85.91	A	76.03				
BAKING QUALITY SCORE	69.87	C	57.49				
SE SCORE	62.91	C	57.02				
	STD. DATA		AVG. DATA	ADJ. L.S.D.	NOTATION BEGINS *	Q	
TEST WEIGHT	59.77		58.18	1.16	58.61	57.46	
FLOUR YIELD	71.17		69.20	0.76	70.40	69.64	
SOFTNESS EQUIV.	63.19		61.12	3.40	59.79	56.39	
FLOUR PROTEIN	9.35		9.10	0.76	10.11	10.86	
SUCROSE SRC	98.87		99.80				
LACTIC ACID RETENTION	120.47		124.46				
COOKIE DIAMETER	18.89		18.52	0.25	18.64	18.39	
	A	B	C	D	E	F	TOTAL
MILLING SCORE	11	22	7	0	0	0	
BAKING SCORE	3	10	3	10	8	6	40
SOFTNESS EQUIV. SCORE	0	1	14	17	7	1	

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

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

COASTAL

HISTORICAL

ENTRY	MILLING	BAKING	SOFT.	TEST	ADJ.	SOFT.	FLOUR	LACTIC	SUCROSE	COOKIE	TOP
	QUALITY	QUALITY	EQUIV.	WT.	YIELD	EQUIV.	PROT.	ACID	SRC	DIAM.	GR.
	SCORE	SCORE	SCORE	LB/BU	%	%	%	SRC	%	CM.	
Nursery Average	76.03	57.49	57.02	58.18	69.20	61.12	9.10	124.46	99.80	18.52	3.48
Allis Database - AGS 2000	85.91	69.87	62.91	62.40	78.96		9.10	90.00		17.90	
AGS 2000	85.91	69.87	62.91	59.77	71.17	63.19	9.35	120.47	98.87	18.89	3.00
AGS 2000 - Average	79.25	54.34	69.13	62.81	72.14	57.59	8.86	103.34	92.31	17.87	3.82
AGS 2000 - Standard Deviation	7.09	13.41	10.25	2.55	1.05	3.41	0.63	6.81	2.64	0.44	1.24
Pioneer 26R61	75.42	44.69	58.37	59.30	69.07	61.60	9.66	125.98	104.60	18.13	3.00
Pioneer 26R61 - Average	68.35	43.99	62.56	62.50	69.58	55.19	9.26	109.68	92.79	17.49	3.33
Pioneer 26R61 - Standard Deviation	7.32	11.01	10.66	2.59	1.30	3.47	0.54	6.47	3.93	0.37	1.32
Coker 9553	72.76	53.17	64.08	59.89	68.54	63.60	9.26	123.76	99.99	18.39	3.00
Coker 9553 - Average	54.88	44.78	69.03	62.85	68.99	58.13	9.15	115.25	102.77	17.89	4.25
Coker 9553 - Standard Deviation	8.34	8.47	4.47	1.25	0.76	1.44	0.42	6.73	5.80	0.55	2.63

Conditional formatting set:

BOLD = 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

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

INTERIOR			MILLING QUALITY SCORE	BAKING QUALITY SCORE	SOFT. EQUIV. SCORE	MICRO T.W. LB/BU	FLOUR YIELD %				
LAB NO.	Standard - AGS 2000		85.91	A	69.87	C	62.91	C	60.95	72.43	
920881	1	AGS 2000	85.9	A	69.9	C	62.9	C	61.0	72.4	
920882	2	Pioneer Brand 26R61	69.9	C	36.2	F	48.7	E	62.3	69.2	Q
920883	3	Coker 9553	63.4	C	52.0	D	64.8	C	61.0	67.9	Q
920884	4	USG 3555	67.7	C	39.3	F	58.6	D	59.8	68.8	Q
920885	5	MO011126	90.4	A	82.6	A	65.7	C	61.0	73.3	
920886	6	NC04-20814	69.9	C	62.6	C	60.9	C	60.1	69.2	Q
920887	7	LA01140D-70	83.2	A	76.9	B	66.5	C	60.5	71.9	
920888	8	TN802	68.7	C	43.5	E	66.8	C	59.4	*	69.0 Q
920889	9	TN501	67.6	C	43.6	E	46.4	E	60.2		68.8 Q
920890	10	W990002K1	75.8	B	47.8	E	63.1	C	58.8	*	70.4 Q
920891	11	W980031K1	67.9	C	52.1	D	51.2	D	61.9		68.8 Q
920892	12	W980031L1	66.5	C	33.9	F	67.4	C	60.1		68.6 Q
920893	13	GA031238-DH7-7E34	86.6	A	48.0	E	48.3	E	59.5	*	72.6
920894	14	GA001170-7E26	70.9	B	42.3	E	49.1	E	61.5		69.4 Q
920895	15	GA001169-7E15	72.6	B	40.7	E	53.9	D	60.8		69.8 Q
920896	16	GA001492-7E9	87.5	A	67.9	C	68.4	C	59.7	*	72.7
920897	17	MD01W233-07-1	70.1	B	30.0	F	54.1	D	61.5		69.3 Q
920898	18	MD00W53-07-1	61.3	C	37.3	F	39.4	F	60.9		67.5 Q
920899	19	G89270	72.9	B	88.3	A	82.3	A	58.0	Q	69.8 Q
920900	20	G89283	64.7	C	54.2	D	77.1	B	58.1	Q	68.2 Q
920901	21	G89267	66.0	C	61.1	C	71.5	B	59.4	*	68.5 Q
920902	22	B040798	84.3	A	78.6	B	74.6	B	58.7	*	72.1
920903	23	D05-6189	66.3	C	65.3	C	68.5	C	57.8	Q	68.5 Q
920904	24	D05*6441	74.1	B	65.6	C	61.9	C	59.7	*	70.1 Q
920905	25	FL01029-K1	73.3	B	46.4	E	64.2	C	61.2		69.9 Q
920906	26	Z03-0496	62.7	C	46.0	E	56.1	D	59.7	*	67.8 Q
920907	27	ARS03-5358	72.3	B	75.4	B	57.8	D	60.5		69.7 Q
920908	28	ARS05-0443	61.7	C	28.1	F	66.9	C	57.9	Q	67.6 Q
920909	29	VA04W-90	68.1	C	48.2	E	68.8	C	60.7		68.9 Q
920910	30	VA05W-139	63.4	C	35.5	F	55.2	D	60.8		67.9 Q
920911	31	VA06W-392	68.4	C	66.8	C	60.7	C	60.2		68.9 Q
920912	32	VA05W-251	72.5	B	57.3	D	53.5	D	59.8		69.8 Q
920913	33	LA01034D-235-1	78.0	B	74.4	B	58.9	D	59.1	*	70.9 Q
920914	34	LA01029D-139-3	75.8	B	59.3	D	66.6	C	61.5		70.4 Q
920915	35	LA01139D-56-1	82.0	A	87.6	A	59.2	D	60.2		71.7
920916	36	AR96052-4-3	66.3	C	71.6	B	63.8	C	59.1	*	68.5 Q
920917	37	AR98088-1-1	72.1	B	67.9	C	54.1	D	60.5		69.7 Q
920918	38	NC05-21090	66.9	C	57.6	D	65.8	C	60.6		68.6 Q
920919	39	NC05-20276	60.2	C	37.1	F	54.6	D	61.1		67.3 Q
920920	40	NC05-19684	69.1	C	67.3	C	64.6	C	60.7		69.1 Q
average			71.68		56.15		61.08		60.13		69.59

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

INTERIOR		SOFT. EQUIV. %	FLOUR PROT. %	LACTIC ACID SRC	SUCROSE SRC %	COOKIE DIAM. CM.	TOP GR.
Standard - AGS 2000		59.43	9.11	104.53	92.71	19.13	3
1	AGS 2000	59.4	9.11	104.5	92.7	19.13	3
2	Pioneer Brand 26R61	54.5	* 9.65	113.5	97.5	18.12	Q 3
3	Coker 9553	60.1	9.42	127.6	95.9	18.59	Q 4
4	USG 3555	57.9	8.88	118.9	102.6	18.21	Q 4
5	MO011126	60.4	9.01	122.8	102.2	19.51	8
6	NC04-20814	58.7	8.66	125.7	98.2	18.91	7
7	LA01140D-70	60.7	9.11	124.3	96.8	19.34	6
8	TN802	60.8	8.52	127.0	98.9	18.34	Q 3
9	TN501	53.7	* 9.43	94.9	97.9	18.34	Q 3
10	W990002K1	59.5	9.41	114.0	96.0	18.46	Q 4
11	W980031K1	55.3	* 9.63	112.6	99.2	18.59	Q 3
12	W980031L1	61.0	9.32	135.4	105.3	18.05	Q 2
13	GA031238-DH7-7E34	54.3	* 9.36	129.4	97.0	18.47	Q 7
14	GA001170-7E26	54.6	* 9.13	117.1	102.2	18.30	Q 5
15	GA001169-7E15	56.3	8.61	121.3	100.6	18.25	Q 6
16	GA001492-7E9	61.3	8.62	117.3	91.4	19.07	5
17	MD01W233-07-1	56.4	9.27	108.3	95.9	17.93	Q 4
18	MD00W53-07-1	51.2	Q 9.15	107.2	98.7	18.15	Q 4
19	G89270	66.2	8.14	104.0	89.8	19.68	8
20	G89283	64.4	8.31	134.0	99.0	18.66	* 3
21	G89267	62.4	8.16	110.4	94.1	18.86	* 7
22	B040798	63.5	8.58	116.6	88.7	19.39	7
23	D05-6189	61.4	8.75	108.4	92.0	18.99	3
24	D05*6441	59.1	8.88	128.3	93.1	19.00	6
25	FL01029-K1	59.9	8.97	121.3	99.2	18.42	Q 2
26	Z03-0496	57.1	9.35	102.8	98.5	18.41	Q 3
27	ARS03-5358	57.6	9.42	131.3	91.4	19.29	5
28	ARS05-0443	60.8	9.29	123.0	107.5	17.87	Q 1
29	VA04W-90	61.5	8.66	124.7	97.7	18.48	Q 3
30	VA05W-139	56.7	8.78	143.9	103.2	18.10	Q 4
31	VA06W-392	58.7	8.66	107.3	92.2	19.03	3
32	VA05W-251	56.1	* 8.70	106.4	95.6	18.75	* 5
33	LA01034D-235-1	58.0	8.71	111.7	92.0	19.26	7
34	LA01029D-139-3	60.7	8.85	120.6	97.4	18.81	* 3
35	LA01139D-56-1	58.1	8.99	122.1	89.9	19.66	4
36	AR96052-4-3	59.8	8.84	127.6	94.9	19.18	3
37	AR98088-1-1	56.4	8.29	100.8	93.8	19.07	7
38	NC05-21090	60.4	8.98	127.0	98.4	18.76	* 3
39	NC05-20276	56.5	10.26	* 126.8	103.9	18.14	Q 3
40	NC05-19684	60.0	9.36	132.5	98.1	19.05	4
		58.79	8.98	118.83	96.99	18.72	4.38

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

INTERIOR		GRAIN CONDITION			BLACK	SHRIVELING
		FHB	WEATHERINGS	SPROUTING	POINT	AFTER CLEANING
Standard - AGS 2000		(0-3)	(Yes/No)	(0-3)	(0-3)	(0-3)
1	AGS 2000	1	n	n	1	1
2	Pioneer Brand 26R61	1-2	y	n	0	1
3	Coker 9553	1	n	n	0	1
4	USG 3555	1	y	n	1	1
5	MO011126	1	?	n	0	0
6	NC04-20814	1	n	n	0	0
7	LA01140D-70	1	y	n	1	1
8	TN802	1	n	n	0	1
9	TN501	1	?	n	0	0
10	W990002K1	1	n	n	0	1
11	W980031K1	1	n	n	1	1
12	W980031L1	1	y	n	1	1
13	GA031238-DH7-7E34	1	n	n	0	1
14	GA001170-7E26	1	n	n	0	1
15	GA001169-7E15	1	n	n	1	0
16	GA001492-7E9	1	?	n	1	1
17	MD01W233-07-1	1	n	n	2	1
18	MD00W53-07-1	1	?	n	1	1
19	G89270	1	n	n	0	0
20	G89283	1	y	n	1	0
21	G89267	1	n	n	0	0
22	B040798	1	n	n	0	0
23	D05-6189	1	y	n	0	1
24	D05*6441	1	n	n	0	1
25	FL01029-K1	1	n	n	0	2
26	Z03-0496	1	y	n	0	2
27	ARS03-5358	1	n	1	0	1
28	ARS05-0443	1	y	n	1	1
29	VA04W-90	1	n	1?	1	0
30	VA05W-139	1	n	n	0	1
31	VA06W-392	1	y	n	0	0
32	VA05W-251	1	n	n	0	1
33	LA01034D-235-1	1	y	n	1	1
34	LA01029D-139-3	1	n	n	0	2
35	LA01139D-56-1	1	n	n	1	1
36	AR96052-4-3	1	?	1	0	1
37	AR98088-1-1	1	n	n	0	0
38	NC05-21090	1	y?	n	0	1
39	NC05-20276	1	n	n	0	2
40	NC05-19684	1-2	n?	n	1	1

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

	STD. DATA		AVG. DATA				
MILLING QUALITY SCORE	85.91	A	71.68				
BAKING QUALITY SCORE	69.87	C	56.15				
SE SCORE	62.91	C	61.08				
	STD. DATA		AVG. DATA	ADJ. L.S.D.	NOTATION BEGINS *	Q	
TEST WEIGHT	60.95		60.13	1.18	59.77	58.59	
FLOUR YIELD	72.43		69.59	0.78	71.65	70.88	
SOFTNESS EQUIV.	59.43		58.79	3.20	56.24	53.04	
FLOUR PROTEIN	9.11		8.98	0.74	9.85	10.58	
SUCROSE SRC	92.71		96.99				
LACTIC ACID RETENTION	104.53		118.83				
COOKIE DIAMETER	19.13		18.72	0.26	18.87	18.62	
	A	B	C	D	E	F	TOTAL
MILLING SCORE	7	12	21	0	0	0	
BAKING SCORE	3	5	9	6	9	8	40
SOFTNESS EQUIV. SCORE	1	3	19	12	4	1	

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

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

INTERIOR HISTORICAL

ENTRY	MILLING	BAKING	SOFT.	TEST	ADJ.	SOFT.	FLOUR	LACTIC	SUCROSE	COOKIE	TOP
	QUALITY	QUALITY	EQUIV.	WT.	YIELD	EQUIV.	PROT.	ACID	SRC	DIAM.	GR.
	SCORE	SCORE	SCORE	LB/BU	%	%	%	SRC	%	CM.	
Nursery Average	71.68	56.15	61.08	60.13	69.59	58.79	8.98	118.83	96.99	18.72	4.38
Allis Database - AGS 2000	85.91	69.87	62.91	62.40	78.96		9.10	90.00		17.90	
AGS 2000	85.91	69.87	62.91	60.95	72.43	59.43	9.11	104.53	92.71	19.13	3.00
AGS 2000 - Average	79.25	54.34	69.13	62.81	72.14	57.59	8.86	103.34	92.31	17.87	3.82
AGS 2000 - Standard Deviation	7.09	13.41	10.25	2.55	1.05	3.41	0.63	6.81	2.64	0.44	1.24
Pioneer 26R61	69.91	36.15	48.72	62.33	69.24	54.46	9.65	113.53	97.47	18.12	3.00
Pioneer 26R61 - Average	68.35	43.99	62.56	62.50	69.58	55.19	9.26	109.68	92.79	17.49	3.33
Pioneer 26R61 - Standard Deviation	7.32	11.01	10.66	2.59	1.30	3.47	0.54	6.47	3.93	0.37	1.32
Coker 9553	63.38	51.98	64.77	61.02	67.94	60.08	9.42	127.59	95.87	18.59	4.00
Coker 9553 - Average	54.88	44.78	69.03	62.85	68.99	58.13	9.15	115.25	102.77	17.89	4.25
Coker 9553 - Standard Deviation	8.34	8.47	4.47	1.25	0.76	1.44	0.42	6.73	5.80	0.55	2.63

Conditional formatting set:

BOLD = 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

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

TWO TRIAL AVERAGE		MILLING QUALITY SCORE	BAKING QUALITY SCORE	SOFT. EQUIV. SCORE	MICRO T.W. LB/BU	FLOUR YIELD %	SOFT. EQUIV. %
1	AGS 2000	85.9	69.9	62.9	60.4	71.8	61.3
2	Pioneer Brand 26R61	72.7	40.5	53.6	60.8	69.2	58.1
3	Coker 9553	68.1	52.6	64.5	60.5	68.2	61.9
4	USG 3555	72.1	41.3	57.8	58.9	69.1	59.5
5	MO011126	89.3	78.8	61.6	59.5	72.5	60.9
6	NC04-20814	70.7	48.1	58.9	59.0	68.8	59.9
7	LA01140D-70	85.7	77.2	63.9	59.3	71.8	61.7
8	TN802	72.0	48.2	64.5	58.7	69.1	61.9
9	TN501	69.4	35.0	43.6	59.1	68.5	54.6
10	W990002K1	78.8	48.0	60.8	58.4	70.4	60.6
11	W980031K1	70.8	53.4	52.7	60.0	68.8	57.7
12	W980031L1	68.5	33.6	65.3	59.1	68.4	62.2
13	GA031238-DH7-7E34	87.4	47.0	46.6	58.8	72.1	55.6
14	GA001170-7E26	73.7	46.6	49.1	59.8	69.4	56.5
15	GA001169-7E15	76.4	42.5	54.1	59.4	69.9	58.3
16	GA001492-7E9	89.4	63.1	65.1	58.9	72.5	62.1
17	MD01W233-07-1	69.6	43.0	52.7	59.8	68.6	57.8
18	MD00W53-07-1	63.1	39.1	38.3	59.5	67.3	52.7
19	G89270	76.9	83.9	77.5	58.0	70.0	66.4
20	G89283	69.8	64.4	71.7	58.1	68.6	64.4
21	G89267	69.3	58.1	64.7	58.8	68.5	61.9
22	B040798	82.9	76.5	66.9	58.4	71.2	62.7
23	D05-6189	69.8	70.8	66.2	58.0	68.6	62.5
24	D05*6441	77.0	71.4	60.4	58.9	70.0	60.5
25	FL01029-K1	75.8	43.7	66.2	59.7	69.8	62.5
26	Z03-0496	64.3	42.2	52.3	58.9	67.5	57.6
27	ARS03-5358	77.5	74.6	57.7	59.3	70.1	59.5
28	ARS05-0443	62.2	35.4	63.7	58.0	67.1	61.6
29	VA04W-90	71.5	50.8	68.2	59.4	69.0	63.2
30	VA05W-139	64.0	34.4	49.9	59.5	67.4	56.7
31	VA06W-392	71.3	72.3	57.7	59.2	68.9	59.5
32	VA05W-251	72.9	62.9	47.4	59.0	69.2	55.9
33	LA01034D-235-1	78.4	77.9	54.1	58.6	70.3	58.2
34	LA01029D-139-3	76.6	49.1	65.9	59.9	70.0	62.4
35	LA01139D-56-1	86.0	87.3	56.1	59.2	71.9	58.9
36	AR96052-4-3	66.6	67.0	60.5	58.7	68.0	60.5
37	AR98088-1-1	74.0	75.6	56.9	59.4	69.4	59.3
38	NC05-21090	69.5	54.7	64.1	59.4	68.5	61.7
39	NC05-20276	62.1	44.1	54.4	59.7	67.1	58.3
40	NC05-19684	73.2	68.9	64.3	59.5	69.3	61.8
	Average	73.9	56.8	59.0	59.2	69.4	60.0
	Std Error	1.7	5.4	2.6	0.5	0.3	0.9
	F-value	19.5***	8.3***	9.6***	NS	19.5***	9.6***

NS - F-value non-significant

*** - F-value significant at the p<0.001 level

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

TWO TRIAL AVERAGE		FLOUR PROT. %	LACTIC ACID SRC	SUCROSE SRC %	COOKIE DIAM. CM.	TOP GR. Score
1	AGS 2000	9.23	112.5	95.8	19.01	3.0
2	Pioneer Brand 26R61	9.66	119.8	101.1	18.13	3.0
3	Coker 9553	9.34	125.7	98.0	18.49	3.5
4	USG 3555	8.99	121.5	102.5	18.15	3.5
5	MO011126	9.09	122.2	98.1	19.28	7.5
6	NC04-20814	8.79	130.9	99.5	18.36	5.0
7	LA01140D-70	9.17	127.1	94.5	19.23	4.5
8	TN802	8.45	127.8	101.8	18.36	3.5
9	TN501	9.69	96.5	101.5	17.96	2.5
10	W990002K1	9.42	118.0	99.7	18.35	3.5
11	W980031K1	9.59	118.6	98.6	18.51	3.0
12	W980031L1	9.21	138.4	107.6	17.92	2.5
13	GA031238-DH7-7E34	9.18	131.9	96.4	18.32	5.0
14	GA001170-7E26	9.03	123.0	104.3	18.31	3.0
15	GA001169-7E15	8.63	126.8	102.8	18.19	4.5
16	GA001492-7E9	8.84	122.7	91.5	18.81	4.0
17	MD01W233-07-1	9.57	112.3	98.3	18.20	4.0
18	MD00W53-07-1	9.35	108.3	100.9	18.09	5.5
19	G89270	8.47	104.6	89.5	19.43	6.0
20	G89283	8.50	138.0	100.2	18.85	3.5
21	G89267	8.45	114.9	95.8	18.65	6.0
22	B040798	8.86	116.4	90.9	19.21	5.0
23	D05-6189	8.83	108.2	93.0	19.04	4.0
24	D05*6441	9.05	130.5	95.9	19.06	4.0
25	FL01029-K1	8.89	122.6	102.4	18.22	3.0
26	Z03-0496	9.08	111.1	101.4	18.18	2.5
27	ARS03-5358	9.50	135.4	93.9	19.15	4.5
28	ARS05-0443	9.29	130.7	108.8	17.97	2.0
29	VA04W-90	8.61	127.2	100.2	18.44	3.0
30	VA05W-139	8.89	146.6	104.8	17.95	2.5
31	VA06W-392	8.89	108.6	92.6	19.08	4.5
32	VA05W-251	8.57	105.1	97.0	18.80	6.0
33	LA01034D-235-1	8.71	115.0	92.1	19.25	5.0
34	LA01029D-139-3	8.92	123.2	101.5	18.39	2.0
35	LA01139D-56-1	9.04	124.2	89.8	19.53	4.0
36	AR96052-4-3	9.01	132.1	96.5	18.92	2.5
37	AR98088-1-1	8.42	103.3	94.5	19.18	7.0
38	NC05-21090	8.85	127.9	98.6	18.55	3.0
39	NC05-20276	10.35	125.8	103.5	18.23	2.5
40	NC05-19684	9.31	131.5	101.1	18.98	3.5
	Average	9.0	121.6	98.4	18.62	3.9
	Std Error	1.4	2.6	1.7	0.17	1.0
	F-value	8.2***	17.4***	7.6***	8.3***	NS

NS - F-value non-significant

*** - F-value significant at the $p < 0.001$

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

2008-2009 AVERAGE		MILLING QUALITY SCORE	BAKING QUALITY SCORE	SOFT. EQUIV. SCORE	MICRO T.W. LB/BU	FLOUR YIELD %	SOFT. EQUIV. %
1	AGS 2000	85.9	69.9	62.9	61.3	72.5	60.1
2	Pioneer Brand 26R61	72.6	43.5	51.9	61.8	69.8	56.3
3	Coker 9553	65.6	50.3	63.6	61.6	68.4	60.4
4	USG 3555	68.1	42.7	54.2	59.8	69.0	57.0
10	MO011126	88.2	75.1	59.9	60.8	72.9	59.1
12	NC04-20814	69.3	47.8	58.4	59.4	69.2	58.5
13	LA01140D-70	81.9	68.4	63.2	60.7	71.7	60.2
	Average	75.9	56.8	59.1	60.7	70.5	58.8
	Std Error	1.6	3.9	1.2	0.3	0.3	0.4
	F-value	31.4***	12.5**	14.8**	7.9*	33.9***	14.7**

NS - F-value non-significant

*, **, *** - F-value significant at the
p<0.05, p<0.01 and p<0.001
level, respectively

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

2008-2009 AVERAGE		FLOUR PROT. %	LACTIC ACID SRC	SUCROSE SRC %	COOKIE DIAM. CM.	TOP GR.
1	AGS 2000	9.04	107.6	95.3	18.89	4.5
2	Pioneer Brand 26R61	9.54	112.5	99.1	18.10	3.5
3	Coker 9553	9.25	120.3	102.8	18.30	3.8
4	USG 3555	9.02	116.3	103.5	18.07	3.8
10	MO011126	9.21	119.5	98.0	19.04	6.3
12	NC04-20814	8.80	125.3	99.0	18.23	4.5
13	LA01140D-70	9.36	121.2	93.3	18.84	4.8
	Average	9.2	117.5	98.7	18.49	4.4
	Std Error	0.1	1.4	2.2	0.1	0.8
	F-value	NS	18.5**	NS	12.2**	NS

NS - F-value non-significant

*, **, *** - F-value significant at the
p<0.05, p<0.01 and p<0.001
level, respectively