UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service

State Agricultural Experiment Stations, Cooperating

2007 - 2008

UNIFORM SOUTHERN SOFT RED WINTER WHEAT NURSERY

Report

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This is a joint progress report of cooperative investigations underway in the State Agricultural Experiment Stations and the Agricultural Research Service of the U.S. Department of Agriculture containing preliminary data which have not been sufficiently confirmed to justify general release; interpretations may be modified with additional experimentation. Confirmed results will be published through established channels. The report is primarily a tool for the use of the cooperators and their official staff and those persons having direct and special interest in the development of agricultural research programs.

This report includes data furnished by the State Agricultural Experiment Stations. The report is not intended for publication and should not be referred to in literature citations nor quoted in publicity or advertising. Use of the data may be granted for certain purposes upon written request to the agency or agencies involved.

USDA-ARS
National Small Grains Germplasm Research Facility
1691 S. 2700 W.
Aberdeen, ID 83210

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USDA Agricultural Research Service

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2007-2008 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	NC03-6228	A92-4452//NC96BGTD1sib/NC96BGTA6sib	Murphy	06-07
6	NC03-8026	NC96BGTD1sib/NC94-7673//NCV93-612	Murphy	06-07
7	VA04W-259	VA97W-533 [FFR555W/Gore//Ck9803/VA87-54-636] /NC95-11612(Stella/KS85WGRC01//C8433/3/C8629/FL7927)	Griffey	06-07
8	LA99005UC-31-3-C	Pio2548/Coker9835(LA90144B16-3-2)//AGS2000	Harrison	06-07
9	LA98214D-14-1-2-B	Shelby/LA87167D8-10-2(FR81-19/FL302//Coker983)	Harrison	06-07
10	MO011126	MO94-103/Pio2552	McKendry	06-07
11	NC04-15533	NC94-6275/P86958//VA96-54-234	Murphy	07-08
12	NC04-20814	NC94-6275/P86958//VA96-54-234	Murphy	07-08
13	LA01140D-70	LA841/LA422//Pio26R61	Harrison	07-08
14	LA01138D-52	LA841/LA422//AGS2000	Harrison	07-08
15	AR96077-7-2	Jackson/Pio2643	Bacon	07-08
16	AR97124-4-3	P88288C1-6-1-2/Terra SR204	Bacon	07-08
17	P992231A1-2-1	Patton//Patterson/Bizel/3/9346	Ohm	07-08
18	P03112A1-7-14	INW0411//INW0315/99794	Ohm	07-08
19	P04287A1-10	INW0315*2/4/INW0304//9346/CS 5Am/3/91202//INW0301/INW0315	Ohm	07-08
20	VA05W-250	VA98W-130(Savannah/VA87-54-558//VA88-54-328/Gore)//VA96W-348(IN81401A1-32-2/FFR555W)/Pio26R61	Griffey	07-08
21	VA05W-258	VA98W-130(Savannah/VA87-54-558//VA88-54-328/Gore)//Coker9835/SS520	Griffey	07-08
22	VA05W-78	Tribute/AGS2000	Griffey	07-08
23	MD01W233-05-1	McCormick/Choptank	Costa	07-08
24	MD01W233-06-16	McCormick/Choptank	Costa	07-08
25	MD01W233-06-1	McCormick/Choptank	Costa	07-08
26	TN801	Cardinal/FL302//AR Exp 494B-2-2/3/Fillmore/Cardinal//Jackson	West	07-08
27	M04-4715	Mason/Ernie	Fogleman	07-08
28	M04*5109	VA94-54-479/Pio2628	Fogleman	07-08
29	M03-3616-C	Hopewell/Patton	Fogleman	07-08
30	B030543	VA93-54-429/LA85422	Hancock	07-08
31	D04*5546	Mason/Pio26R61	Hancock	07-08
32	D04-5012	NC96BGTD1/Mason	Hancock	07-08
33	GA991336-6E9	GA92432//AGS2000/Pio26R61	Johnson	07-08
34	GA991209-6E33	GA901146/GA96004//AGS2000	Johnson	07-08
35	GA991371-6E13	GA931521/2*AGS2000	Johnson	07-08
36	GA991227-6A33	VA97W-24/AGS2000	Johnson	07-08
37	W98007V1	F2IN82104B1-3-2(H14H15),W900003,Andy/Seneca/3/ Downy/F2IN82104B1-3-2(H14H15),Williams,IN86861-8(H18)/4/NC96BGTA6	Edge	07-08
38	W98008J1	IN82104B1-3-2(H14H15)/Williams,IN86861-8(H18)//NC96BGTA6	Edge	07-08
39	W98008P1	IN82104B1-3-2(H14H15)/Williams,IN86861-8(H18)//NC96BGTA6	Edge	07-08
40	G59160	T812/VA91-54-219	Brown	07-08
41	G61505	ABI89-4584A/T814	Brown	07-08
42	G41732	T814/L900819	Brown	07-08

LOCATION NOTES

Belle Mina, Alabama

Cooperators:	Kathryn M. Glass Auburn University
Planted:	November 1, 2007
Harvested:	June 14, 2008
Fertilizer:	80 lbs.

Bay, Arkansas

Cooperators:	June Hancock, David Hill, Richard Gray AgriPro Coker
Planted:	October 13, 2007
Notes:	After planting received 8 inches of rain in the next 2 weeks. Stands were spotty and CV reflects variability. This is the most Septoria I have seen in years.

Stuttgart, Arkansas

Cooperators:	Robert Bacon, John Kelly University of Arkansas
Planted:	November 5, 2007
Harvested:	June 12, 2008
Fertilizer:	90 N spring application

Castle Co., Delaware

Cooperators:	Bob Uniatowski University of Delaware

Quincy, Florida

Cooperators:	Ron Barnett, Ann Blount University of Florida
Planted:	December 4, 2007
Harvested:	May 29, 2008
Notes:	Fairly high CV; very warm growing season, grew tall, lodged, low test weights. Heading date missing values were not vernalized.

Griffin, Georgia

Cooperators:	Jerry Johnson, Dan Bland, Steve Sutton, James Buck, John Youmans, Lilian Miranda, Kathryn Harman University of Georgia
Planted:	November 1, 2007
Harvested:	June 5, 2008
Fertilizer:	20-40-60; 70 N topdress
Notes:	Freeze damage occurred on the early lines. High level of stripe rust infection.

Plains, Georgia

Cooperators:	Jerry Johnson, Dan Bland, Steve Sutton, James Buck, John Youmans, Lillian Miranda, Kathryn Harman University of Georgia
Planted:	November 15, 2007
Harvested:	May 28, 2008
Fertilizer:	80 N
Notes:	Late maturity entries were harvested and dried and may have lower test weight due to early harvest.

Aberdeen, Idaho

Cooperators:	Harold Bockelman, Charles Erickson, Scott McNeil USDA-ARS, National Small Grains Collection
Planted:	September 17, 2007
Harvested:	August 4, 2008

Irvington, Illinois

Cooperators:	Barton Fogleman, Jen Vonderwell, Eugene Glover AgriPro Coker
Planted:	October 20, 2007
Harvested:	June 30, 2008
Fertilizer:	100 N on April 3

Brookston, Indiana

Cooperators:	Barton Fogleman, Jen Vonderwell, Eugene Glover AgriPro Coker
Notes:	Winter kill notes, two rep average: minimum of 5.7 equals moderate stand damage(~40-55%), maximum of 9 equals no living plants remaining.

Evansville, Indiana

Cooperators:	Herb Ohm Purdue University
Planted:	October 5, 2007
Harvested:	June 23, 2008
Fertilizer:	35-90-0 fall; 95 N topdress on March 26
Notes:	FHB was natural infection. We suggest that the very cool weather throughout March to mid-May caused flowers of most entries from the south to be partially pollen sterile, causing the flowers to remain open longer than typical, allowing F. graminearum spores to cause infection. Note that lines from more northern areas had little infection. Also, our lines in adjacent nurseries had little or no natural infection.

Ft. Branch, Indiana

Cooperators:	Benjamin Moreno, Justin Cooley WestBred LLC
Planted:	October 8, 2007
Harvested:	July 24, 2008
Notes:	Location was a high-yielding environment for southern Indiana this year. Good disease expression, especially Septoria and FHB.

Lafayette, Indiana

Cooperators:	Benjamin Moreno, Justin Cooley WestBred LLC
Planted:	October 8, 2007
Harvested:	July 24, 2008
Notes:	Good leaf rust score as well as winter survival/spring vigor.

Tipton, Indiana

Cooperators:	Sam Brown, Katie Russler Genesis Seed Research
Planted:	October 5, 2007
Harvested:	July 17, 2008
Fertilizer:	20 N fall; 40-4-12 on March 1; 40-1-12 on April 1
Notes:	Good stand establishment in the fall. No extreme cold weather in December or January. Thaw late January and early February with excessive rain. Cooler than normal spring temperatures with excellent grain fill. Above normal precipitation on the late end of heading, resulting in some of the higher FHB scores on later maturing winter killed plots.

West Lafayette, Indiana

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

Manhattan, Kansas

Cooperators:	Allan Fritz Kansas State University
Notes:	Nursery was destroyed by baseball-sized hail.

Winfield, Kansas

Cooperators:	Sid Perry WestBred LLC
Planted:	October 28, 2007
Harvested:	June 20, 2008

Logan Co., Kentucky

Cooperators:	Dave Van Sanford University of Kentucky
Planted:	October 17, 2007
Harvested:	June 23, 2008
Notes:	Abundant leaf blotch, lodging.

Woodford Co., Kentucky

Cooperators:	Dave Van Sanford University of Kentucky
Planted:	November 1, 2007
Harvested:	July 1, 2008
Notes:	Planted late, not much growth going into winter, probably not enough N.

Baton Rouge, Louisiana

Cooperators:	Stephen A. Harrison, Kelly Arceneaux, Glenn Schexnayder Louisiana State University
Planted:	November 10, 2007
Harvested:	May 29, 2008
Fertilizer:	18-46-60-10S pre; 90 N top
Notes:	Wet December through February reduced tillering. There was a 36 day range in heading resulting in delayed harvest for 'normal to early' entries. This resulted in low test weights for early entries. Very early and very late entries suffered significant bird damage as targets of opportunity.

Winnsboro, Louisiana

Cooperators:	Stephen A. Harrison, Kelly Arceneaux, Glenn Schexnayder, Padgett, Pascagni Louisiana State University
Planted:	October 29, 2007
Harvested:	May 22, 2008
Fertilizer:	90 N top; 2oz Sencor on Nov. 20
Notes:	Wet December through February reduced tillering. Heavy Hessian fly pressure.

Queenstown, Maryland

Cooperators:	Jose Costa, Aaron Cooper University of Maryland
Planted:	October 15, 2007
Harvested:	June 19, 2008

St. Paul, Minnesota

Cooperators:	Yue Jin
	USDA-ARS, Cereal Disease Laboratory
Notes:	Stem rust seedling and field data.

St. Paul, Minnesota

Cooperators:	Dave Long, Jim Kolmer
	USDA-ARS, Cereal Disease Laboratory
Notes:	Leaf rust seedling data.

Portageville, Missouri

Cooperators:	Anne L. McKendry, David Tague
	University of Missouri
Planted:	November 2, 2007
Harvested:	June 26, 2008
Fertilizer:	40 N fall; 80 N spring
Notes:	Planted about 10 days later than optimal into a wet seedbed. The winter was wet and cold. Tillering was poor, especially in lower areas and the error variance was high because of variation in drainage. No lodging differentials – everything stood through harvest.

Cleveland, Mississippi

Cooperators:	June Hancock, David Hill, Richard Gray
	AgriPro Coker
Planted:	November 8, 2007
Harvested:	June 17, 2008

Newton, Mississippi

Cooperators:	Bernie White
	Mississippi State University
Planted:	November 8, 2007
Harvested:	June 5, 2008
Notes:	Weather delayed timely harvest, so yields were not as good as in some previous years.

Kinston, North Carolina

Cooperators:	Paul Murphy, Rene Navarro
	North Carolina State University
Planted:	October 20, 2007
Harvested:	May 30, 2008
Fertilizer:	130 N topdress
Notes:	Good growth in general throughout the season. Abundant powdery mildew and leaf rust. High CV a result of manganese deficiency early in the season.

Laurel Springs, North Carolina

Cooperators:	Dave Marshall, Myron Fountain
	USDA-ARS
Notes:	Data on stripe rust, winter stress, and powdery mildew.

Raleigh, North Carolina

Cooperators:	Gina Brown-Guedira
	USDA-ARS, Eastern Regional Small Grains Genotyping Lab
Notes:	Marker analysis. DNA was isolated from samples of 10 plants/ entry. "nd"= not determined or lack of amplification. If marker is dominant, samples with no amplification are left blank. "?" indicates that markers may not be diagnostic or data was not clear; therefore can be sure if gene is present or not.

Raleigh, North Carolina

Cooperators:	Christina Cowger
	USDA-ARS, Plant Science Research
Notes:	Coordinator of the Eastern Septoria Nursery.

Wooster, Ohio

Cooperators:	Clay Sneller, Larry Herald
	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=4.6, 70ppm Al, and Al saturation=11%). 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.

Florence, South Carolina

Cooperators:	Benjamin Edge, Carl Myers
	Clemson University
Planted:	November 19, 2007
Harvested:	June 5, 2008

Fertilizer: 30-0-80; 70 N topdress
Notes: Moderate moisture during the winter, dry spring, low disease pressure.

Knoxville, Tennessee
Cooperators: Dennis West
University of Tennessee
Notes: Nursery was abandoned after a severe hailstorm about 2 weeks after heading.

Prosper, Texas
Cooperators: Russell Sutton
Texas A&M University

Blacksburg, Virginia
Cooperators: Carl Griffey
Virginia Tech

Warsaw, Virginia
Cooperators: Carl Griffey
Virginia Tech

Mt. Vernon & Pullman, Washington
Cooperators: Xianming Chen
USDA-ARS, Wheat Genetics, Quality, Physiology, & Disease
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. Stripe rust at the Walla Walla (LOC 6) occurred in hotspots and lack of uniformity, and therefore, some entries possibly escaped from infection.

Oconto, Wisconsin

Cooperators:	Gordon Cisar Great Lakes Cereal Grains
Planted:	September 29, 2007
Harvested:	August 2, 2008
Fertilizer:	manure (lots of it)
Notes:	Lots of snow cover, so winterkill was minimized. Trical 2700 (spring triticale) had an average winterkill score of 2.1 in the nursery. Lots of moisture. Unusually late harvest.


TESTING LOCATIONS
Mt. Vernon
Pullman
Walla Walla
Aberdeen
St. Paul
Oconto
Wooster
Lafayette
Tipton
W. Lafayette
Castle Co.
Queenstown
Warsaw
Manhattan
Irvington
Ft. Branch
Evansville
Woodford Co.
Blacksburg
Winfield
Logan Co.
Laurel Springs
Kinston
Enid
Portageville
Knoxville
Bay
Florence
Belle Mina
Stuttgart
Cleveland
Griffin
Prosper
Newton
Plains
Winnsboro
Quincy
Baton Rouge
Washington
Oregon
Idaho
Montana
North Dakota
Minnesota
Wisconsin
Michigan
South Dakota
Wyoming
Nebraska
Iowa
Illinois
Indiana
Ohio
Pennsylvania
New York
Vermont
New Jersey
Nevada
Utah
Colorado
Kansas
Missouri
West Virginia
Virginia
Kentucky
Tennessee
North Carolina
South Carolina
Oklahoma
Arkansas
Mississippi
Alabama
Georgia
Florida
Louisiana
Texas
New Mexico
Arizona
California

YIELD (bu/acre)

		Belle Mina		Bay		Stuttgart		Castle Co.		Quincy		Griffin	
		AL	a	AR	a	AR	a	DE	ab	FL	a	GA	a
		Glass	rank	Hancock	rank	Bacon	rank	Uniatowski	rank	Barnett	rank	Johnson	rank
1	AGS 2000	70	4	55.0	16	89.3	1	81.2	30	55.0	18	67.7	27
2	Pioneer Brand 26R61	61	30	42.8	37	76.4	16	83.5	22	63.6	6	88.0	6
3	Coker 9553	66	16	66.0	2	84.1	6	81.6	27	60.2	8	94.8	4
4	USG 3555	70	4	67.7	1	70.9	25	92.5	3	55.7	17	97.0	1
5	NC03-6228	66	16	43.2	35	39.8	40	81.4	28	50.9	20	44.3	40
6	NC03-8026	63	28	43.0	36	75.5	19	79.7	35	59.8	9	76.6	16
7	VA04W-259	70	4	58.7	12	81.9	10	88.0	11	43.4	28	95.1	2
8	LA99005UC-31-3-C	67	12	47.2	29	76.7	15	74.9	41	74.3	2	55.2	37
9	LA98214D-14-1-2-B	65	21	50.6	22	82.7	9	76.5	39	38.5	37	65.3	29
10	MO011126	67	12	65.2	3	79.5	13	85.0	20	28.5	41	95.0	3
11	NC04-15533	58	33	48.4	26	71.7	24	84.4	21	38.9	35	78.3	14
12	NC04-20814	61	30	40.7	40	67.0	30	81.3	29	44.6	26	73.1	21
13	LA01140D-70	70	4	53.3	19	86.4	4	85.9	17	58.2	11	71.9	23
14	LA01138D-52	70	4	46.1	31	83.8	8	85.9	17	57.4	14	53.2	38
15	AR96077-7-2	60	32	43.4	34	76.4	16	75.1	40	43.9	27	76.0	17
16	AR97124-4-3	66	16	47.1	30	73.3	20	83.1	23	50.8	21	68.6	26
17	P992231A1-2-1	58	33	57.9	13	69.8	27	77.9	36	71.1	3	79.2	13
18	P03112A1-7-14	56	37	55.3	15	62.0	34	79.9	34	45.9	22	60.3	35
19	P04287A1-10	65	21	54.2	18	81.2	11	77.9	36	66.3	4	85.7	7
20	VA05W-250	67	12	48.4	24	56.7	36	82.1	26	41.4	30	59.0	36
21	VA05W-258	72	1	40.0	41	46.3	39	89.1	8	39.0	34	63.7	31
22	VA05W-78	71	3	59.7	10	18.5	42	86.9	14	45.6	23	40.9	41
23	MD01W233-05-1	56	37	48.1	27	53.7	37	76.9	38	52.9	19	81.9	10
24	MD01W233-06-16	56	37	46.0	32	33.9	41	81.2	30	34.0	39	50.6	39
25	MD01W233-06-1	53	42	48.0	28	72.0	23	82.8	25	35.0	38	75.6	18
26	TN801	67	12	46.0	33	68.5	29	96.1	1	12.6	42	65.3	29
27	M04-4715	66	16	60.5	9	69.5	28	83.0	24	38.9	35	61.2	34
28	M04*5109	70	4	51.1	21	70.3	26	90.7	4	39.6	33	80.5	12
29	M03-3616-C	55	40	63.8	5	80.8	12	88.9	9	44.8	25	63.1	33
30	B030543	64	26	63.2	6	78.5	14	89.7	6	43.3	29	93.0	5
31	D04*5546	65	21	54.6	17	72.2	22	74.0	42	57.7	12	75.3	19
32	D04-5012	64	26	52.6	20	63.0	33	85.7	19	59.3	10	85.2	8
33	GA991336-6E9	66	16	63.9	4	62.0	34	87.6	12	64.3	5	66.5	28
34	GA991209-6E33	70	4	60.9	8	86.1	5	88.7	10	61.9	7	63.3	32
35	GA991371-6E13	68	11	59.4	11	86.5	3	86.9	14	57.5	13	71.9	23
36	GA991227-6A33	72	1	62.1	7	73.2	21	80.1	33	45.1	24	85.1	9
37	W98007V1	63	28	48.9	23	63.7	32	90.5	5	56.7	15	68.9	25
38	W98008J1	55	40	41.3	39	76.0	18	89.7	6	55.8	16	72.0	22
39	W98008P1	65	21	38.7	42	52.3	38	80.7	32	91.6	1	40.6	42
40	G59160	57	36	41.5	38	65.8	31	87.6	12	33.6	40	73.4	20
41	G61505	58	33	48.4	25	83.9	7	96.1	1	40.9	31	80.8	11
42	G41732	65	21	56.6	14	88.3	2	86.1	16	40.2	32	77.7	15
LOCATION MEANS		64.1		52.1		70.2		84.2		50.0		71.9	
LSD (.05)						16.7		8.7		21.4		15.9	
CV %				20		14.7		6.2		26.3		10.9	
REPS		3		2		3		3		3		2	
Harvest Area (sq.ft.)		100				70		50.25		55		50	

YIELD (bu/acre)

		Plains GA	ab	Aberdeen ID		Irvington IL	ab	Evansville IN	a	Ft. Branch IN	ab	Lafayette IN	
		Johnson	rank	Bockelman	rank	Fogleman	rank	Ohm	rank	Moreno	rank	Moreno	rank
1	AGS 2000	104.8	13	126.8	11	72.9	19	88.0	17	78.2	23	64.6	33
2	Pioneer Brand 26R61	96.1	25	125.6	12	54.0	42	81.0	31	74.4	26	71.7	26
3	Coker 9553	103.4	15	98.0	40	58.9	40	82.2	30	78.9	19	67.4	30
4	USG 3555	113.0	4	118.7	21	74.9	12	92.5	9	78.6	22	70.7	28
5	NC03-6228	102.4	18	104.6	33	67.2	29	54.9	42	38.4	42	67.3	31
6	NC03-8026	100.3	19	101.2	36	69.3	27	79.3	33	69.1	32	67.2	32
7	VA04W-259	91.8	27	139.8	3	72.6	20	84.3	22	67.9	34	84.5	4
8	LA99005UC-31-3-C	106.2	10	116.4	24	86.1	1	82.8	27	86.7	4	40.9	39
9	LA98214D-14-1-2-B	105.3	11	114.7	25	83.2	2	87.2	18	73.9	27	24.4	41
10	MO011126	86.6	37	123.7	16	71.2	24	99.7	3	85.5	8	76.4	20
11	NC04-15533	81.6	38	99.5	37	74.7	15	86.3	20	72.9	28	74.2	23
12	NC04-20814	80.6	39	110.2	30	70.7	26	75.3	37	63.2	38	77.8	16
13	LA01140D-70	98.2	21	96.8	41	66.8	31	77.1	36	70.8	31	49.1	38
14	LA01138D-52	108.2	8	125.0	14	71.2	23	83.9	25	81.0	15	50.5	36
15	AR96077-7-2	97.9	22	98.1	39	64.9	35	72.5	39	64.7	37	50.4	37
16	AR97124-4-3	89.1	33	113.8	26	74.8	13	84.1	24	82.2	12	82.3	8
17	P992231A1-2-1	96.7	24	113.0	27	63.7	37	84.7	21	98.3	1	76.0	21
18	P03112A1-7-14	80.4	40	121.8	17	62.0	39	79.4	32	78.8	20	82.3	9
19	P04287A1-10	107.4	9	99.0	38	56.8	41	91.0	10	87.6	2	72.9	25
20	VA05W-250	87.6	36	117.1	23	71.5	22	88.3	15	64.8	36	64.3	34
21	VA05W-258	105.3	11	125.2	13	74.4	17	82.9	26	56.7	40	77.6	17
22	VA05W-78	113.0	4	110.6	28	77.4	9	92.7	8	84.0	10	88.0	2
23	MD01W233-05-1	98.7	20	120.9	19	74.6	16	82.2	29	67.9	33	79.7	13
24	MD01W233-06-16	91.5	28	104.5	34	66.2	32	98.4	5	74.6	25	77.6	17
25	MD01W233-06-1	88.5	34	118.8	20	65.9	33	89.7	13	79.7	17	81.1	12
26	TN801	73.3	42	105.6	31	72.0	21	99.4	4	82.6	11	78.7	14
27	M04-4715	90.8	29	105.4	32	78.4	7	101.7	2	86.6	5	83.4	5
28	M04*5109	89.3	32	123.9	15	74.7	14	92.7	6	72.8	30	75.9	22
29	M03-3616-C	78.3	41	128.5	10	62.3	38	86.4	19	87.2	3	87.2	3
30	B030543	103.3	16	133.0	7	79.2	5	88.2	16	74.7	24	76.6	19
31	D04*5546	102.9	17	142.3	1	64.3	36	91.0	11	79.2	18	83.3	6
32	D04-5012	97.6	23	128.8	8	79.4	4	82.3	28	72.9	29	78.4	15
33	GA991336-6E9	111.0	6	135.9	4	71.1	25	78.9	34	80.6	16	32.8	40
34	GA991209-6E33	116.1	3	135.4	5	78.8	6	84.3	23	86.6	6	100.3	1
35	GA991371-6E13	116.7	2	139.8	2	79.9	3	92.7	7	86.4	7	58.9	35
36	GA991227-6A33	118.3	1	134.1	6	76.4	10	74.7	38	82.1	13	70.9	27
37	W98007V1	111.0	6	121.8	18	65.5	34	59.2	41	55.4	41	70.4	29
38	W98008J1	95.2	26	95.8	42	75.5	11	61.0	40	67.1	35	73.9	24
39	W98008P1	104.8	13	104.4	35	67.4	28	78.1	35	60.7	39	14.6	42
40	G59160	90.5	30	110.2	29	67.1	30	102.0	1	85.5	9	82.2	10
41	G61505	88.5	34	128.8	9	73.0	18	89.9	12	78.7	21	82.8	7
42	G41732	89.7	31	117.7	22	78.1	8	89.2	14	82.1	14	82.0	11
LOCATION MEANS		97.9		117.5		71.2		84.6		75.7		70.3	
LSD (.05)		11.4		26.53		7.82		17.3					
CV %		7.2		13.35		5.42		10.1		5.9			
REPS		3		3		2		2		2		1	
Harvest Area (sq.ft.)		50		22.14		45.6							

YIELD (bu/acre)

		Tipton		Winfield		Logan Co.		Woodford Co.		Baton Rouge		Winnsboro	
		IN	b	KS	b	KY	ab	KY	a	LA	a	LA	a
		Brown	rank	Perry	rank	Van Sanford	rank	Van Sanford	rank	Harrison	rank	Harrison	rank
1	AGS 2000	78.9	37	56.1	31	53.5	36	84.7	11	78.8	5	80.0	6
2	Pioneer Brand 26R61	91.8	34	60.6	24	62.4	31	72.7	31	64.2	12	67.1	11
3	Coker 9553	121.5	5	75.3	1	85.9	9	83.4	13	47.5	23	53.4	22
4	USG 3555	117.6	11	68.3	9	88.7	3	82.3	17	55.0	18	46.8	24
5	NC03-6228	110.9	17	52.9	36	46.7	40	75.4	28	58.5	16	51.9	23
6	NC03-8026	101.1	28	55.0	34	56.4	34	91.3	6	53.2	21	62.2	13
7	VA04W-259	118.4	9	57.0	29	85.8	10	77.0	24	63.4	13	70.5	9
8	LA99005UC-31-3-C	100.3	29	60.8	22	50.6	38	71.9	32	79.0	4	86.5	3
9	LA98214D-14-1-2-B	34.4	42	45.0	40	71.9	23	62.7	38	66.3	11	69.9	10
10	MO011126	117.8	10	64.3	19	87.6	5	82.5	15	28.6	34	42.0	29
11	NC04-15533	103.8	25	66.8	12	77.1	16	81.5	18	35.5	29	58.0	16
12	NC04-20814	108.0	21	66.3	13	81.6	13	65.1	37	39.2	27	53.9	21
13	LA01140D-70	72.5	39	55.7	33	82.6	12	77.7	23	72.6	9	72.7	8
14	LA01138D-52	61.6	40	60.8	21	56.4	33	65.2	36	71.1	10	82.0	4
15	AR96077-7-2	75.0	38	41.7	41	64.2	29	82.6	14	61.2	14	57.3	18
16	AR97124-4-3	91.9	33	56.4	30	86.0	8	76.9	25	49.5	22	57.7	17
17	P992231A1-2-1	108.6	20	65.4	14	76.1	19	93.0	4	29.7	32	58.0	15
18	P03112A1-7-14	107.7	22	67.8	10	87.5	6	58.5	39	19.6	39	26.5	39
19	P04287A1-10	105.2	24	58.7	27	92.6	1	81.1	21	58.2	17	64.5	12
20	VA05W-250	88.9	35	33.3	42	67.3	25	57.4	41	30.8	31	42.2	28
21	VA05W-258	113.0	13	50.7	38	72.9	21	95.7	2	46.4	24	21.2	41
22	VA05W-78	118.6	8	58.1	28	88.3	4	50.1	42	73.7	7	32.8	35
23	MD01W233-05-1	119.6	7	67.2	11	65.9	26	83.7	12	44.5	25	37.3	31
24	MD01W233-06-16	109.5	19	69.9	7	73.5	20	57.8	40	54.0	19	34.7	33
25	MD01W233-06-1	101.2	27	60.0	25	86.2	7	68.0	35	28.9	33	28.6	37
26	TN801	110.9	17	53.3	35	63.6	30	99.3	1	8.2	41	9.2	42
27	M04-4715	122.6	4	64.7	16	77.2	15	81.2	20	58.7	15	46.5	25
28	M04*5109	126.0	3	59.5	26	64.8	27	91.7	5	26.7	37	26.5	38
29	M03-3616-C	133.2	2	74.3	2	89.7	2	75.7	27	17.6	40	25.4	40
30	B030543	136.4	1	70.5	6	72.3	22	94.5	3	41.7	26	45.2	26
31	D04*5546	112.1	16	68.9	8	79.8	14	71.6	33	76.8	6	58.5	14
32	D04-5012	112.6	15	73.3	3	67.7	24	76.3	26	26.9	36	42.7	27
33	GA991336-6E9	82.6	36	52.5	37	52.4	37	87.0	8	81.4	1	81.2	5
34	GA991209-6E33	106.4	23	72.9	4	60.3	32	69.5	34	80.5	3	89.9	2
35	GA991371-6E13	92.1	32	55.7	32	64.7	28	82.4	16	80.7	2	89.9	1
36	GA991227-6A33	101.4	26	62.0	20	49.8	39	79.6	22	73.2	8	73.2	7
37	W98007V1	94.4	31	50.3	39	29.6	42	85.8	10	53.8	20	55.7	19
38	W98008J1	97.3	30	64.3	18	55.5	35	74.2	30	28.4	35	39.3	30
39	W98008P1	41.8	41	64.8	15	44.3	41	88.7	7	6.1	42	30.5	36
40	G59160	117.0	12	64.5	17	76.3	18	86.2	9	23.7	38	35.3	32
41	G61505	112.9	14	60.7	23	76.3	17	81.4	19	35.2	30	33.6	34
42	G41732	120.0	6	71.1	5	84.6	11	75.1	29	36.4	28	54.2	20
LOCATION MEANS		102.3		60.9		70.4		78.1		49.2		52.3	
LSD (.05)		6.7		7.2		11.4		18.9		8.7		14.9	
CV %		5.8		6.9		8		12.7		10.5		17	
REPS		2		2		2		2		2		2	
Harvest Area (sq.ft.)		32		50		40		40		70		70	

YIELD (bu/acre)

		Queenstown		Portageville		Cleveland		Newton		Kinston		Wooster	
		MD	ab	MO	a	MS	ab	MS	a	NC	a	OH	b
		Costa	rank	McKendry	rank	Hancock	rank	White	rank	Murphy	rank	Sneller	rank
1	AGS 2000	81.2	19	49.6	16	70.6	23	66.4	8	55.7	25	57.4	37
2	Pioneer Brand 26R61	67.0	37	52.2	10	79.7	11	69.4	5	59.4	18	73.7	23
3	Coker 9553	77.3	26	53.6	8	68.8	30	70.2	3	58.7	19	75.3	18
4	USG 3555	83.1	14	50.3	13	80.0	10	68.4	6	57.0	20	93.4	1
5	NC03-6228	82.6	16	45.2	25	56.8	38	56.3	19	65.8	9	71.8	25
6	NC03-8026	81.5	17	41.6	30	65.9	34	56.1	20	66.7	5	66.1	30
7	VA04W-259	87.3	6	38.3	33	76.3	14	74.2	1	72.1	2	84.6	4
8	LA99005UC-31-3-C	76.1	29	47.5	18	87.7	2	59.8	14	45.4	40	62.2	33
9	LA98214D-14-1-2-B	77.9	25	47.4	19	84.3	5	59.6	16	59.9	17	48.5	42
10	MO011126	81.4	18	56.7	7	85.4	4	63.0	12	44.4	41	78.5	11
11	NC04-15533	83.5	12	39.9	31	68.6	31	63.5	11	61.0	16	75.2	19
12	NC04-20814	95.3	1	38.7	32	74.5	18	65.0	9	61.4	14	79.3	10
13	LA01140D-70	68.7	36	47.2	20	75.3	16	62.5	13	66.3	6	72.0	24
14	LA01138D-52	69.5	35	60.4	2	80.7	8	70.2	4	56.6	22	57.1	38
15	AR96077-7-2	73.6	32	21.4	42	70.0	25	55.2	22	55.0	27	61.9	34
16	AR97124-4-3	58.6	41	46.8	21	69.0	29	51.9	27	46.2	37	60.6	36
17	P992231A1-2-1	73.5	33	42.3	29	77.5	13	57.2	18	53.0	31	75.6	17
18	P03112A1-7-14	72.2	34	33.2	38	70.4	24	52.4	26	51.3	33	74.4	22
19	P04287A1-10	80.8	20	51.3	11	78.6	12	52.4	25	65.8	10	66.6	29
20	VA05W-250	87.2	7	48.4	17	73.1	21	44.5	40	61.5	13	76.9	16
21	VA05W-258	79.4	23	58.8	3	66.0	33	55.4	21	71.6	3	83.3	7
22	VA05W-78	86.8	9	57.5	5	53.9	39	53.8	23	66.9	4	83.8	5
23	MD01W233-05-1	79.4	22	33.4	37	53.7	40	46.5	37	65.8	8	79.4	9
24	MD01W233-06-16	75.4	31	45.1	26	61.0	36	46.5	38	53.4	30	78.3	12
25	MD01W233-06-1	66.4	39	43.4	27	69.4	27	50.8	29	64.9	11	82.2	8
26	TN801	83.2	13	50.0	15	66.3	32	46.8	36	54.2	29	70.5	27
27	M04-4715	90.9	3	57.1	6	76.1	15	48.2	33	51.3	34	92.0	2
28	M04*5109	75.5	30	66.6	1	74.9	17	59.2	17	55.3	26	74.9	20
29	M03-3616-C	77.2	27	45.5	24	72.2	22	51.9	28	49.4	36	77.0	14
30	B030543	87.8	5	36.6	34	82.1	7	64.7	10	61.4	15	77.0	14
31	D04*5546	55.8	42	53.4	9	82.7	6	49.6	32	45.6	39	68.6	28
32	D04-5012	76.9	28	43.1	28	69.2	28	41.0	41	62.3	12	64.2	32
33	GA991336-6E9	78.8	24	46.1	23	86.1	3	59.7	15	56.2	23	61.6	35
34	GA991209-6E33	85.2	11	57.8	4	80.6	9	68.2	7	51.4	32	77.4	13
35	GA991371-6E13	87.1	8	50.6	12	91.4	1	71.5	2	72.2	1	54.7	41
36	GA991227-6A33	85.7	10	22.7	41	69.7	26	47.7	35	50.1	35	74.8	21
37	W98007V1	66.0	40	34.7	36	51.7	42	47.9	34	66.1	7	64.4	31
38	W98008J1	66.7	38	50.1	14	64.5	35	45.6	39	56.7	21	56.0	40
39	W98008P1	79.5	21	24.1	40	51.9	41	39.5	42	31.7	42	57.0	39
40	G59160	88.7	4	36.0	35	73.2	20	50.0	30	46.2	38	84.7	3
41	G61505	82.7	15	46.2	22	73.9	19	53.2	24	56.2	24	83.4	6
42	G41732	92.2	2	32.3	39	59.9	37	50.0	30	54.9	28	71.8	25
LOCATION MEANS		78.7		45.3		72.0		56.3		57.3		72.1	
LSD (.05)		14.9		17.4		11.4				17.3		7.1	
CV %		9.4		23.7		7.8				14.9		4.9	
REPS		2		3		2		4		2		2	
Harvest Area (sq.ft.)				48				75		55		50	

YIELD (bu/acre)

		Florence SC	ab	Prosper TX	a	Blacksburg VA	ab	Warsaw VA	ab	Oconto WI	
		Edge	rank	Sutton	rank	Griffey	rank	Griffey	rank	Cisar	rank
1	AGS 2000	84.9	7	58.8	4	69.3	36	96.7	19	103.9	17
2	Pioneer Brand 26R61	76.4	26	50.0	18	68.3	38	85.1	37	82.8	42
3	Coker 9553	81.3	9	47.5	24	92.9	6	103.0	11	92.5	33
4	USG 3555	80.7	11	53.8	12	97.7	2	110.9	3	89.5	38
5	NC03-6228	78.4	20	50.4	16	79.1	28	92.8	25	95.4	32
6	NC03-8026	75.4	29	43.6	33	74.6	34	90.9	27	89.7	37
7	VA04W-259	86.9	3	55.1	10	96.0	4	101.7	14	104.8	16
8	LA99005UC-31-3-C	75.5	28	55.5	7	86.7	13	85.6	36	102.3	20
9	LA98214D-14-1-2-B	72.7	31	48.1	23	68.6	37	93.0	24	99.9	22
10	MO011126	67.6	37	49.8	19	86.0	15	97.8	18	97.2	29
11	NC04-15533	78.6	18	47.0	25	80.2	27	98.4	16	107.0	11
12	NC04-20814	69.1	35	55.5	8	91.5	7	101.4	15	107.6	10
13	LA01140D-70	77.6	23	51.0	15	82.0	23	84.5	38	92.3	35
14	LA01138D-52	84.6	8	56.6	6	55.4	42	63.0	42	86.5	40
15	AR96077-7-2	79.9	14	43.8	32	85.0	18	88.5	33	86.8	39
16	AR97124-4-3	67.2	38	38.9	35	60.3	41	75.7	40	92.4	34
17	P992231A1-2-1	69.5	34	48.7	22	85.1	17	89.2	31	106.2	12
18	P03112A1-7-14	55.2	42	34.2	39	89.3	12	101.8	13	105.2	14
19	P04287A1-10	63.1	41	39.0	34	84.2	20	90.3	29	113.6	3
20	VA05W-250	79.9	14	36.5	38	89.4	11	103.5	8	99.3	24
21	VA05W-258	77.8	21	46.4	29	98.9	1	118.3	1	115.7	1
22	VA05W-78	85.3	5	51.5	14	91.3	8	114.1	2	105.5	13
23	MD01W233-05-1	69.8	33	46.6	28	82.9	21	94.7	22	102.9	18
24	MD01W233-06-16	70.5	32	55.4	9	76.4	32	104.4	6	97.8	27
25	MD01W233-06-1	75.4	29	38.9	36	81.3	25	104.2	7	98.8	26
26	TN801	66.6	39	33.7	40	66.8	39	93.4	23	86.1	41
27	M04-4715	76.6	25	45.6	30	80.8	26	96.2	21	96.2	31
28	M04*5109	85.0	6	49.1	20	69.8	35	90.8	28	91.6	36
29	M03-3616-C	66.2	40	44.0	31	82.6	22	98.0	17	98.9	25
30	B030543	76.4	26	54.8	11	96.8	3	87.5	34	108.0	9
31	D04*5546	78.7	17	52.5	13	66.5	40	74.6	41	97.7	28
32	D04-5012	77.7	22	38.6	37	90.3	10	102.4	12	99.8	23
33	GA991336-6E9	91.0	2	61.7	2	81.6	24	92.3	26	112.8	4
34	GA991209-6E33	91.5	1	58.5	5	86.1	14	90.2	30	112.8	5
35	GA991371-6E13	79.8	16	62.0	1	84.8	19	83.5	39	110.6	7
36	GA991227-6A33	81.0	10	61.1	3	91.1	9	103.4	9	109.1	8
37	W98007V1	86.2	4	50.4	16	76.3	33	89.0	32	101.9	21
38	W98008J1	80.1	13	46.8	26	76.5	31	96.3	20	104.8	15
39	W98008P1	80.2	12	27.1	42	85.9	16	85.8	35	102.5	19
40	G59160	68.3	36	46.7	27	94.8	5	103.2	10	110.7	6
41	G61505	78.5	19	32.1	41	77.8	29	108.9	4	97.1	30
42	G41732	76.8	24	49.0	21	77.5	30	104.8	5	115.1	2
LOCATION MEANS		76.8		48.0		81.8		95.0		100.7	
LSD (.05)		3		8.9		12.6		8.5			
CV %		9.1		11.4		9.1		5.3			
REPS		3								1	
Harvest Area (sq.ft.)		35								50	

YIELD (bu/acre)

		ENTRY MEANS ALL LOCATIONS	rank	ENTRY MEANS IN-REGION [a]	rank	ENTRY MEANS CV <10% [b]	rank
1	AGS 2000	75.2	12	73.6	7	75.8	32
2	Pioneer Brand 26R61	72.4	24	69.3	20	74.8	35
3	Coker 9553	76.9	6	73.9	6	84.9	7
4	USG 3555	80.2	3	76.8	2	90.7	1
5	NC03-6228	66.6	39	62.1	39	73.9	36
6	NC03-8026	70.9	29	68.5	23	75.8	33
7	VA04W-259	80.2	2	75.6	4	85.7	6
8	LA99005UC-31-3-C	74.1	17	72.4	10	79.9	23
9	LA98214D-14-1-2-B	68.2	35	70.0	16	71.9	40
10	MO011126	75.7	8	71.1	13	84.2	9
11	NC04-15533	72.2	27	68.2	25	80.4	21
12	NC04-20814	72.4	25	67.4	28	81.8	17
13	LA01140D-70	72.3	26	72.1	11	76.3	31
14	LA01138D-52	70.8	30	70.1	15	72.0	39
15	AR96077-7-2	66.4	41	65.8	30	72.5	38
16	AR97124-4-3	69.0	32	65.4	32	73.4	37
17	P992231A1-2-1	74.3	15	70.0	17	81.3	18
18	P03112A1-7-14	68.0	36	61.4	41	79.0	27
19	P04287A1-10	75.5	9	72.8	9	80.7	19
20	VA05W-250	67.9	37	64.7	35	77.3	29
21	VA05W-258	73.9	18	68.6	22	83.5	13
22	VA05W-78	74.5	14	69.4	19	87.8	2
23	MD01W233-05-1	71.3	28	65.1	33	79.3	25
24	MD01W233-06-16	68.2	34	62.6	38	79.4	24
25	MD01W233-06-1	70.3	31	65.1	34	80.2	22
26	TN801	66.5	40	61.9	40	76.8	30
27	M04-4715	75.4	10	70.6	14	85.8	5
28	M04*5109	73.1	20	68.2	26	80.7	20
29	M03-3616-C	72.6	22	65.5	31	83.6	12
30	B030543	78.6	5	73.0	8	87.2	3
31	D04*5546	74.3	16	68.8	21	77.5	28
32	D04-5012	72.9	21	67.7	27	82.3	15
33	GA991336-6E9	75.4	11	74.2	5	79.2	26
34	GA991209-6E33	81.8	1	76.8	3	86.2	4
35	GA991371-6E13	79.9	4	78.5	1	81.8	16
36	GA991227-6A33	76.2	7	72.1	12	82.7	14
37	W98007V1	68.2	33	64.2	36	71.6	41
38	W98008J1	67.6	38	63.9	37	75.7	34
39	W98008P1	60.0	42	58.9	42	69.6	42
40	G59160	72.5	23	66.6	29	84.7	8
41	G61505	73.8	19	68.4	24	83.9	11
42	G41732	75.1	13	69.6	18	84.2	10
LOCATION MEANS		72.6		68.8		79.9	
LSD (.05)							
CV %							
REPS							
Harvest Area (sq.ft.)							

TEST WEIGHT (lbs/bu)

		Belle Mina AL	Bay AR	Stuttgart AR	Castle Co. DE	Quincy FL	Griffin GA
		Glass	Hancock	Bacon	Uniatowski	Barnett/Blount	Johnson
1	AGS 2000	59.8	53.0	54.7	57.6	54.1	59.2
2	Pioneer Brand 26R61	59.6	56.1	56.2	58.1	56.3	62.0
3	Coker 9553	60.1	61.5	57.8	58.1	54.1	63.0
4	USG 3555	57.0	57.6	56.1	55.9	50.2	59.8
5	NC03-6228	60.5	52.5	53.2	57.8	52.8	57.3
6	NC03-8026	57.7	56.7	55.7	57.6	53.1	58.4
7	VA04W-259	57.4	55.9	54.8	57.6	52.5	60.8
8	LA99005UC-31-3-C	57.2	50.5	54.7	54.6	50.6	58.5
9	LA98214D-14-1-2-B	58.1	53.8	57.4	56.6	48.0	60.0
10	MO011126	58.6	58.2	57.4	57.1	52.2	61.1
11	NC04-15533	56.8	58.1	55.7	58.1	51.5	58.7
12	NC04-20814	57.4	55.8	55.6	56.8	51.5	58.0
13	LA01140D-70	58.1	57.2	57.4	57.5	50.2	59.0
14	LA01138D-52	57.1	50.5	55.4	55.9	48.3	56.8
15	AR96077-7-2	57.2	57.3	55.8	56.0	49.6	59.4
16	AR97124-4-3	58.3	56.0	56.7	55.7	49.9	59.2
17	P992231A1-2-1	58.0	58.0	54.8	57.5	55.7	60.7
18	P03112A1-7-14	54.3	56.9	52.8	55.8	50.9	58.5
19	P04287A1-10	56.6	59.2	56.7	57.0	54.4	60.6
20	VA05W-250	56.8	52.7	54.7	54.8	49.3	55.6
21	VA05W-258	56.7	52.6	52.4	57.3	48.3	57.1
22	VA05W-78	57.8	48.9	53.1	54.6	50.2	54.6
23	MD01W233-05-1	55.7	55.3	55.0	53.2	57.0	60.5
24	MD01W233-06-16	60.1	56.9	50.4	58.0	52.8	59.7
25	MD01W233-06-1	60.4	56.1	56.1	58.4	55.7	61.6
26	TN801	56.7	55.7	54.9	56.3	47.4	58.6
27	M04-4715	55.1	53.1	54.7	54.6	49.0	55.9
28	M04*5109	58.7	56.2	56.9	57.7	54.1	60.3
29	M03-3616-C	57.8	59.0	56.1	56.6	49.6	60.3
30	B030543	58.3	52.8	55.7	58.9	56.0	61.4
31	D04*5546	58.4	52.3	57.5	56.3	54.1	59.5
32	D04-5012	57.3	51.6	55.9	56.1	49.9	59.5
33	GA991336-6E9	58.5	56.6	56.5	57.9	50.6	60.4
34	GA991209-6E33	60.0	57.8	59.4	59.0	52.5	60.2
35	GA991371-6E13	56.6	53.0	55.3	56.4	54.1	58.1
36	GA991227-6A33	57.5	52.7	55.7	55.7	49.9	58.9
37	W98007V1	57.9	56.6	55.2	55.6	54.4	60.1
38	W98008J1	57.4	31.1	56.3	55.9	52.8	58.3
39	W98008P1	55.7	47.8	54.1	53.1	50.6	55.7
40	G59160	55.6	56.6	53.7	54.0	42.2	60.4
41	G61505	57.0	57.0	53.2	57.9	53.1	60.4
42	G41732	59.0	57.3	57.9	85.1	53.4	61.7
LOCATION MEANS		57.7	54.6	55.5	57.3	51.7	59.3

TEST WEIGHT (lbs/bu)

		Plains GA	Aberdeen ID	Irvington IL	Evansville IN	Ft. Branch IN	Tipton IN
		Johnson	Bockelman	Fogleman	Ohm	Moreno	Brown
1	AGS 2000	59.5	63.5	59.5	60.3	58.4	52.9
2	Pioneer Brand 26R61	61.2	62.6	59.4	61.1	54.7	55.8
3	Coker 9553	61.0	63.2	60.5	61.8	60.1	59.8
4	USG 3555	59.0	62.7	59.2	58.8	57.0	58.5
5	NC03-6228	61.7	64.5	60.3	58.9	48.2	58.9
6	NC03-8026	60.4	62.3	60.0	60.7	57.9	58.4
7	VA04W-259	56.1	65.3	60.8	60.5	54.0	59.5
8	LA99005UC-31-3-C	59.4	63.6	59.6	59.4	56.3	55.7
9	LA98214D-14-1-2-B	60.0	63.0	59.7	59.8	58.0	53.2
10	MO011126	58.3	62.1	60.1	60.3	57.2	58.9
11	NC04-15533	55.3	62.9	59.3	60.3	58.7	58.5
12	NC04-20814	54.1	62.9	59.9	59.4	56.1	59.3
13	LA01140D-70	59.2	62.8	59.6	59.2	57.9	57.1
14	LA01138D-52	58.9	62.4	58.3	58.1	55.7	52.3
15	AR96077-7-2	58.5	62.8	59.6	60.3	58.3	57.1
16	AR97124-4-3	59.7	62.9	58.7	59.5	59.5	58.1
17	P992231A1-2-1	55.2	62.8	59.1	60.9	56.0	57.9
18	P03112A1-7-14	53.5	63.0	58.8	58.4	52.8	58.5
19	P04287A1-10	59.6	62.5	58.1	58.9	56.4	57.4
20	VA05W-250	55.3	64.1	58.0	57.8	54.3	51.7
21	VA05W-258	59.9	62.0	55.8	56.9	52.2	56.0
22	VA05W-78	57.1	63.2	57.9	57.7	48.8	56.9
23	MD01W233-05-1	60.7	63.3	58.4	58.5	53.0	57.3
24	MD01W233-06-16	59.9	63.1	60.5	62.4	56.7	58.7
25	MD01W233-06-1	59.0	63.3	60.2	61.5	60.7	59.2
26	TN801	55.4	61.4	57.6	57.9	56.9	57.3
27	M04-4715	56.2	60.5	56.0	55.1	50.6	55.0
28	M04*5109	60.2	63.5	61.0	59.0	57.9	59.8
29	M03-3616-C	53.4	61.1	55.6	59.1	56.9	57.3
30	B030543	59.5	64.9	60.0	59.1	53.4	60.3
31	D04*5546	60.7	62.9	60.5	59.6	54.2	58.1
32	D04-5012	56.8	62.1	59.0	52.5	47.5	56.3
33	GA991336-6E9	60.2	63.2	58.4	58.9	54.5	56.1
34	GA991209-6E33	61.5	63.8	59.9	59.6	58.1	57.7
35	GA991371-6E13	58.6	62.4	57.9	57.5	52.6	54.7
36	GA991227-6A33	58.1	63.2	59.2	57.6	52.4	51.8
37	W98007V1	60.2	63.3	59.0	58.4	53.0	53.7
38	W98008J1	58.1	61.4	57.9	56.5	53.4	52.9
39	W98008P1	57.1	61.3	56.4	53.4	52.6	57.7
40	G59160	54.4	61.9	59.5	58.9	57.0	47.0
41	G61505	57.6	62.4	60.5	57.1	54.4	60.1
42	G41732	60.2	63.3	60.2	60.6	55.5	59.7
LOCATION MEANS		58.4	62.8	59.0	58.9	55.2	56.7

TEST WEIGHT (lbs/bu)

		Winfield KS	Logan Co. KY	Woodford Co. KY	Baton Rouge LA	Winnsboro LA	Queenstown MD
		Perry	Van Sanford	Van Sanford	Harrison	Harrison	Costa
1	AGS 2000	56.6	55.7	57.1	58.9	60.7	56.9
2	Pioneer Brand 26R61	58.5	58.1	58.8	59.0	60.9	57.8
3	Coker 9553	59.3	60.2	59.0	57.0	60.5	59.7
4	USG 3555	57.1	57.3	57.1	55.0	54.7	56.9
5	NC03-6228	56.8	54.3	58.2	57.5	58.3	57.1
6	NC03-8026	57.4	58.1	58.1	57.4	59.0	57.7
7	VA04W-259	58.2	56.7	54.4	58.0	58.7	55.9
8	LA99005UC-31-3-C	56.0	55.5	55.9	56.3	59.7	57.2
9	LA98214D-14-1-2-B	56.6	57.2	57.9	58.6	59.6	57.5
10	MO011126	56.6	59.2	58.5	57.5	57.2	57.0
11	NC04-15533	57.7	56.7	58.4	57.6	59.7	57.5
12	NC04-20814	56.8	57.5	57.8	57.3	59.2	57.5
13	LA01140D-70	57.4	57.2	57.7	58.4	60.8	58.2
14	LA01138D-52	56.6	52.9	58.2	57.4	58.6	52.7
15	AR96077-7-2	57.9	57.3	58.5	56.1	57.4	56.7
16	AR97124-4-3	57.7	58.1	55.8	55.9	59.1	57.5
17	P992231A1-2-1	57.7	58.0	58.3	55.8	58.4	57.4
18	P03112A1-7-14	55.7	57.6	57.3	54.4	55.9	57.0
19	P04287A1-10	56.6	57.4	58.2	56.1	58.0	58.2
20	VA05W-250	48.9	53.5	52.5	54.8	57.4	56.3
21	VA05W-258	55.5	55.5	56.6	55.0	53.4	56.8
22	VA05W-78	54.4	57.3	56.6	54.7	50.0	55.2
23	MD01W233-05-1	55.2	54.6	55.7	56.2	56.5	57.9
24	MD01W233-06-16	55.7	59.3	58.5	58.6	57.7	59.6
25	MD01W233-06-1	57.4	58.3	58.4	57.8	58.1	59.9
26	TN801	55.5	58.0	56.8	53.3	56.8	55.5
27	M04-4715	53.5	55.3	54.6	54.1	55.8	55.5
28	M04*5109	56.3	56.6	58.6	57.6	56.4	57.1
29	M03-3616-C	57.1	58.9	57.4	56.4	59.7	58.2
30	B030543	57.4	58.2	57.7	58.9	60.2	55.7
31	D04*5546	57.1	57.7	58.9	59.5	59.6	54.8
32	D04-5012	54.9	55.6	56.2	53.0	54.9	56.6
33	GA991336-6E9	56.8	55.1	58.7	58.4	60.5	53.6
34	GA991209-6E33	58.5	57.8	58.6	58.5	61.1	59.0
35	GA991371-6E13	57.1	56.6	56.1	57.1	60.2	55.9
36	GA991227-6A33	54.9	51.9	58.1	57.1	58.5	55.1
37	W98007V1	50.0	53.1	57.3	56.7	57.7	57.6
38	W98008J1	53.5	55.8	52.5	54.2	56.4	58.3
39	W98008P1	54.4	51.9	51.9	53.9	56.4	56.5
40	G59160	54.9	55.6	57.1	55.2	57.4	56.2
41	G61505	59.0	56.6	57.7	57.4	58.5	56.4
42	G41732	58.2	57.8	57.3	55.1	58.7	57.8
LOCATION MEANS		56.3	56.5	57.1	56.6	58.1	56.9

TEST WEIGHT (lbs/bu)

		Portageville MO	Newton MS	Kinston NC	Wooster OH	Florence SC	Prosper TX
		McKendry	White	Murphy	Sneller	Edge	Sutton
1	AGS 2000	57.1	58	56.5	59.3	59.9	56.8
2	Pioneer Brand 26R61	58.5	58	58.6	61.5	59.7	57.5
3	Coker 9553	57.6	58	59.1	61.2	60.2	57.0
4	USG 3555	56.3	54	57.4	59.5	58.3	55.4
5	NC03-6228	57.4	58	60.1	62.0	59.3	56.9
6	NC03-8026	56.1	57	59.1	60.2	59.3	55.6
7	VA04W-259	56.2	58	59.7	61.5	57.3	55.5
8	LA99005UC-31-3-C	55.1	55	52.7	60.3	54.2	56.5
9	LA98214D-14-1-2-B	54.6	57	57.2	60.5	57.6	57.8
10	MO011126	56.7	58	59.0	61.4	60.2	57.1
11	NC04-15533	55.7	58	58.9	61.4	59.3	56.3
12	NC04-20814	55.5	58	58.5	61.2	56.9	56.5
13	LA01140D-70	56.6	57	57.9	62.1	58.3	56.9
14	LA01138D-52	56.6	57	54.5	57.7	59.2	55.8
15	AR96077-7-2	54.4	57	57.8	61.8	58.4	55.7
16	AR97124-4-3	55.7	57	58.4	59.5	57.8	54.3
17	P992231A1-2-1	57.4	58	60.1	60.1	59.1	56.0
18	P03112A1-7-14	55.7	56	58.5	60.1	54.8	53.2
19	P04287A1-10	55.1	53	58.4	59.2	58.4	55.0
20	VA05W-250	55.0	57	59.0	60.2	58.8	52.6
21	VA05W-258	55.5	57	58.7	58.2	58.1	54.8
22	VA05W-78	55.3	54	56.9	60.1	57.1	51.8
23	MD01W233-05-1	53.8	56	58.6	60.1	55.1	52.9
24	MD01W233-06-16	57.2	60	60.3	62.7	59.3	56.2
25	MD01W233-06-1	57.5	59	61.7	62.9	59.7	54.8
26	TN801	54.9	57	58.4	60.5	58.6	51.8
27	M04-4715	54.7	56	54.9	57.5	56.2	54.3
28	M04*5109	57.3	57	57.9	61.6	59.9	56.5
29	M03-3616-C	55.8	57	59.6	57.3	59.2	52.7
30	B030543	55.9	60	60.8	62.6	59.6	57.9
31	D04*5546	57.8	59	56.9	61.2	59.2	56.5
32	D04-5012	55.1	56	57.6	61.3	57.1	53.3
33	GA991336-6E9	57.7	60	57.8	60.3	60.4	56.0
34	GA991209-6E33	58.2	58	56.6	60.7	60.1	57.2
35	GA991371-6E13	57.2	57	56.8	58.5	58.1	54.5
36	GA991227-6A33	55.1	54	55.1	60.4	56.1	55.8
37	W98007V1	54.9	56	58.1	60.1	58.0	55.7
38	W98008J1	55.3	54	57.3	58.0	57.9	53.3
39	W98008P1	54.5	50	48.8	57.2	53.7	54.2
40	G59160	55.1	57	58.3	60.9	58.0	52.6
41	G61505	56.7	58	59.5	61.5	59.7	52.3
42	G41732	56.9	58	60.1	61.6	59.5	55.4
LOCATION MEANS		56.1	56.9	57.9	60.4	58.3	55.2

TEST WEIGHT (lbs/bu)

		Blacksburg VA	Warsaw VA	Oconto WI	ENTRY MEANS ALL LOCATIONS	
		Griffey	Griffey	Cisar		rank
1	AGS 2000	53.0	58.2	58.4	57.6	17
2	Pioneer Brand 26R61	55.5	59.2	55.5	58.5	6
3	Coker 9553	56.6	58.7	57.4	59.3	1
4	USG 3555	51.3	58.0	57.0	56.9	26
5	NC03-6228	53.2	59.6	59.4	57.6	18
6	NC03-8026	52.0	57.7	58.5	57.9	13
7	VA04W-259	52.0	56.5	57.8	57.5	19
8	LA99005UC-31-3-C	51.6	55.2	56.2	56.2	31
9	LA98214D-14-1-2-B	52.1	57.2	57.5	57.3	23
10	MO011126	55.1	60.1	58.8	58.3	8
11	NC04-15533	51.6	57.8	58.0	57.7	14
12	NC04-20814	52.2	57.8	57.6	57.3	22
13	LA01140D-70	54.0	58.8	55.7	57.9	12
14	LA01138D-52	48.7	53.4	57.2	55.8	35
15	AR96077-7-2	53.3	57.7	64.3	57.6	16
16	AR97124-4-3	52.1	57.6	55.6	57.3	24
17	P992231A1-2-1	55.0	58.4	57.6	57.9	11
18	P03112A1-7-14	54.0	57.4	58.1	56.3	30
19	P04287A1-10	53.2	57.5	57.8	57.4	21
20	VA05W-250	50.3	56.0	55.4	55.3	39
21	VA05W-258	53.6	57.6	56.2	55.9	34
22	VA05W-78	52.7	59.1	57.1	55.3	38
23	MD01W233-05-1	52.0	57.0	56.7	56.5	28
24	MD01W233-06-16	55.1	58.6	59.3	58.4	7
25	MD01W233-06-1	56.2	59.5	59.2	59.0	3
26	TN801	49.6	55.9	55.7	56.1	32
27	M04-4715	51.2	56.5	54.6	54.8	41
28	M04*5109	53.0	58.1	57.6	58.0	9
29	M03-3616-C	53.6	58.1	56.8	57.0	25
30	B030543	56.6	59.9	58.6	58.5	5
31	D04*5546	55.0	57.6	59.3	57.9	10
32	D04-5012	53.9	58.4	56.7	55.7	36
33	GA991336-6E9	54.4	57.2	58.5	57.7	15
34	GA991209-6E33	54.2	58.1	58.1	58.7	4
35	GA991371-6E13	52.0	55.9	55.8	56.5	29
36	GA991227-6A33	52.0	57.0	56.6	55.9	33
37	W98007V1	53.2	57.2	56.2	56.6	27
38	W98008J1	52.6	56.3	54.5	54.9	40
39	W98008P1	50.1	55.1	54.2	54.0	42
40	G59160	52.5	55.9	56.6	55.7	37
41	G61505	51.7	58.2	56.7	57.4	20
42	G41732	54.7	58.4	58.1	59.3	2
LOCATION MEANS		53.0	57.6	57.3	57.5	

HEADING DATE (Julian Days)

		Belle Mina AL	Bay AR	Stuttgart AR	Quincy FL	Griffin GA	Plains GA
		Glass	Hancock	Bacon	Barnett/Blount	Johnson	Johnson
1	AGS 2000	106	108.5	108	95	94	96
2	Pioneer Brand 26R61	107	112.5	106	100	97	100
3	Coker 9553	107	110.5	106	104	98	100
4	USG 3555	107	112.5	106	109	111	112
5	NC03-6228	107	111.5	106	111	112	100
6	NC03-8026	105	115.5	104	107	111	99
7	VA04W-259	113	118.5	112		117	
8	LA99005UC-31-3-C	104	105.5	104	90	94	93
9	LA98214D-14-1-2-B	105	108.5	104	95	96	95
10	MO011126	109	116.5	108	118	118	119
11	NC04-15533	111	116.0	112		117	
12	NC04-20814	109	116.0	108		118	
13	LA01140D-70	104	111.5	108	96	98	98
14	LA01138D-52	108	113.0	108	95	100	98
15	AR96077-7-2	105	117.0	108	111	118	113
16	AR97124-4-3	108	117.5	112	113	118	113
17	P992231A1-2-1	107	117.5	112	109	119	114
18	P03112A1-7-14	113	121.0	112		120	120
19	P04287A1-10	107	117.0	112	99	115	110
20	VA05W-250	110	118.5	112		116	120
21	VA05W-258	107	117.0	106	108	115	113
22	VA05W-78	107	111.5	108	94	96	95
23	MD01W233-05-1	112	117.0	108	110	114	113
24	MD01W233-06-16	112	120.0	112	108	115	113
25	MD01W233-06-1	112	119.0	112	113	117	114
26	TN801	115	117.5	112		118	
27	M04-4715	107	112.0	104	114	115	112
28	M04*5109	109	115.0	104	106	114	112
29	M03-3616-C	112	119.0	112		121	
30	B030543	112	117.5	112	114	117	119
31	D04*5546	107	113.5	108	100	99	100
32	D04-5012	107	114.0	108	98	98	98
33	GA991336-6E9	107	108.0	108	94	96	97
34	GA991209-6E33	102	106.0	102	93	94	93
35	GA991371-6E13	108	110.0	106	94	96	98
36	GA991227-6A33	109	111.0	112	96	97	98
37	W98007V1	107	114.0	106	113	116	112
38	W98008J1	105	113.5	102	93	115	95
39	W98008P1	100	106.0	102	77	92	89
40	G59160	114	120.0	108		122	
41	G61505	114	120.0	108	116	121	121
42	G41732	108	116.5	108	113	117	119
LOCATION MEANS		108.2	114.4	108.0	103.1	109.3	105.9

HEADING DATE (Julian Days)

		Irvington IL	Evansville IN	Lafayette IN	Tipton IN	Woodford Co. KY	Baton Rouge LA
		Fogleman	Ohm	Moreno	Brown	Van Sanford	Harrison
1	AGS 2000	139.0	127.5	145	145.0	133.0	87.0
2	Pioneer Brand 26R61	140.0	126.0	145	145.0	135.5	94.0
3	Coker 9553	137.5	125.5	142	142.0	131.5	101.5
4	USG 3555	138.5	124.5	144	144.5	134.5	102.5
5	NC03-6228	138.0	124.0	142	140.5	130.5	103.0
6	NC03-8026	136.0	124.5	145	140.5	132.5	103.5
7	VA04W-259	141.0	130.0	145	144.5	137.0	103.5
8	LA99005UC-31-3-C	135.5	124.5	145	141.0	131.0	83.5
9	LA98214D-14-1-2-B	137.0	126.0		144.0	134.5	88.0
10	MO011126	142.0	128.0	144	144.5	138.0	108.0
11	NC04-15533	138.5	128.0	143	143.0	134.5	107.0
12	NC04-20814	138.5	129.5	143	141.5	133.0	108.0
13	LA01140D-70	137.5	124.5	146	144.0	132.0	92.0
14	LA01138D-52	143.0	129.5		146.0	136.0	89.0
15	AR96077-7-2	139.0	130.5	147	145.0	136.0	103.5
16	AR97124-4-3	139.0	127.5	142	141.0	135.0	106.0
17	P992231A1-2-1	138.0	128.5	140	140.0	131.5	106.0
18	P03112A1-7-14	143.0	130.0	146	144.5	138.0	109.0
19	P04287A1-10	141.0	128.0	143	141.0	136.5	96.0
20	VA05W-250	142.0	129.0	146	145.0	137.0	107.5
21	VA05W-258	139.5	129.0	145	144.0	135.0	102.0
22	VA05W-78	140.0	129.0	145	142.5	134.5	87.0
23	MD01W233-05-1	139.0	128.5	142	142.0	133.0	105.0
24	MD01W233-06-16	141.0	128.5	144	144.0	137.0	102.5
25	MD01W233-06-1	139.0	128.5	144	144.0	135.5	105.0
26	TN801	141.0	129.5	147	145.0	137.0	114.0
27	M04-4715	136.0	124.0	140	140.0	130.5	98.0
28	M04*5109	140.0	126.5	144	145.0	134.5	104.0
29	M03-3616-C	139.0	129.5	143	141.0	135.0	111.0
30	B030543	142.0	129.5	146	145.0	135.0	107.5
31	D04*5546	140.0	128.5	146	145.5	137.5	93.5
32	D04-5012	138.5	128.0	146	143.0	135.0	90.5
33	GA991336-6E9	140.0	127.5		145.5	134.5	88.0
34	GA991209-6E33	135.5	124.5	145	142.5	130.5	85.5
35	GA991371-6E13	139.0	128.0	148	145.0	133.0	87.0
36	GA991227-6A33	141.0	130.0	147	146.0	137.0	90.0
37	W98007V1	137.5	128.5	144	140.0	133.5	109.5
38	W98008J1	133.5	123.0	142	140.0	131.5	91.5
39	W98008P1	135.5	122.0		142.0	131.0	78.0
40	G59160	143.0	130.5	146	144.0	138.0	108.0
41	G61505	141.0	130.5	146	145.0	137.5	107.5
42	G41732	139.0	124.0	143	140.5	134.0	103.5
LOCATION MEANS		139.1	127.5	144.4	143.2	134.5	99.2

HEADING DATE (Julian Days)

		Winnsboro LA	Queenstown MD	Portageville MO	Kinston NC	Wooster OH	Prosper TX
		Harrison	Costa	McKendry	Murphy	Sneller	Sutton
1	AGS 2000	90.5	121.0	125.7	85.0	147	102.0
2	Pioneer Brand 26R61	94.5	121.0	125.7	91.0	146	101.7
3	Coker 9553	96.0	119.0	124.0	96.0	143	97.7
4	USG 3555	100.0	120.5	123.3	97.0	145	97.3
5	NC03-6228	97.0	118.5	121.3	96.0	144	97.0
6	NC03-8026	95.5	120.0	123.3	95.5	146	97.7
7	VA04W-259	102.0	123.0	127.0	106.0	147	102.7
8	LA99005UC-31-3-C	82.5	118.0	123.7	80.0	144	96.7
9	LA98214D-14-1-2-B	91.0	119.0	122.7	84.0	148	97.0
10	MO011126	102.0	123.5	126.3	105.0	148	103.0
11	NC04-15533	102.0	121.5	126.7	104.0	146	103.3
12	NC04-20814	102.0	120.0	126.7	103.5	145	102.3
13	LA01140D-70	90.5	121.0	122.0	85.5	146	97.0
14	LA01138D-52	91.0	123.5	127.7	84.0	153	99.7
15	AR96077-7-2	99.0	123.0	127.3	98.0	148	101.0
16	AR97124-4-3	102.0	122.0	125.7	104.5	145	105.7
17	P992231A1-2-1	102.0	121.5	124.7	105.5	143	104.0
18	P03112A1-7-14	107.0	123.0	128.0	106.5	148	107.7
19	P04287A1-10	99.0	123.0	126.3	101.5	145	104.0
20	VA05W-250	102.0	124.0	126.3	105.5	147	105.0
21	VA05W-258	101.5	123.0	124.7	102.5	148	101.0
22	VA05W-78	90.5	121.5	125.7	89.5	145	102.3
23	MD01W233-05-1	101.5	121.0	127.0	102.5	143	104.7
24	MD01W233-06-16	101.0	122.0	127.0	104.5	145	104.3
25	MD01W233-06-1	102.5	121.5	127.7	104.5	145	105.3
26	TN801	107.0	123.0	128.0	105.5	148	108.3
27	M04-4715	98.5	119.5	121.7	99.5	142	100.0
28	M04*5109	100.0	123.0	124.0	98.0	147	103.7
29	M03-3616-C	108.0	123.0	127.0	108.0	146	109.0
30	B030543	102.5	123.0	126.3	102.5	148	102.3
31	D04*5546	95.0	123.5	127.3	91.5	148	106.7
32	D04-5012	95.0	124.5	126.7	93.5	147	104.7
33	GA991336-6E9	90.0	122.5	126.7	82.0	147	101.0
34	GA991209-6E33	89.0	119.0	123.3	83.0	143	99.3
35	GA991371-6E13	89.5	120.5	126.0	81.0	148	101.3
36	GA991227-6A33	91.5	123.0	126.7	86.5	151	103.0
37	W98007V1	101.0	120.5	126.0	100.0	145	103.3
38	W98008J1	97.5	117.0	120.7	95.5	142	97.0
39	W98008P1	77.0	116.5	116.3	82.5	141	94.3
40	G59160	107.0	124.0	128.0	106.5	147	108.0
41	G61505	104.0	124.5	128.7	105.5	148	107.7
42	G41732	100.0	121.0	126.3	102.0	145	104.0
LOCATION MEANS		97.5	121.5	125.4	96.7	146.0	102.2

HEADING DATE (Julian Days)

		Blacksburg VA	Warsaw VA	ENTRY MEANS ALL LOCATIONS	
		Griffey	Griffey		rank
1	AGS 2000	125.5	112.0	114.6	8
2	Pioneer Brand 26R61	126.0	113.5	116.4	13
3	Coker 9553	125.0	108.5	115.7	12
4	USG 3555	125.0	111.5	118.3	20
5	NC03-6228	125.5	108.5	116.7	14
6	NC03-8026	126.0	111.5	116.9	17
7	VA04W-259	129.0	116.0	123.0	36
8	LA99005UC-31-3-C	125.5	106.5	111.4	2
9	LA98214D-14-1-2-B	125.5	111.0	112.2	3
10	MO011126	128.5	115.5	122.2	34
11	NC04-15533	129.0	114.5	122.1	33
12	NC04-20814	128.0	114.0	121.4	31
13	LA01140D-70	125.5	112.0	114.6	7
14	LA01138D-52	127.0	114.0	115.0	10
15	AR96077-7-2	128.0	113.0	120.5	28
16	AR97124-4-3	128.5	116.0	121.1	29
17	P992231A1-2-1	128.5	115.0	120.3	27
18	P03112A1-7-14	131.5	118.0	124.5	40
19	P04287A1-10	128.0	116.0	119.4	21
20	VA05W-250	129.5	116.0	123.1	37
21	VA05W-258	128.0	113.0	120.1	24
22	VA05W-78	127.0	112.0	115.2	11
23	MD01W233-05-1	128.0	114.0	120.3	25
24	MD01W233-06-16	128.0	114.5	121.2	30
25	MD01W233-06-1	129.0	115.0	121.7	32
26	TN801	130.0	116.5	124.6	41
27	M04-4715	126.0	113.0	117.6	18
28	M04*5109	128.0	112.5	119.5	22
29	M03-3616-C	131.0	118.0	124.0	39
30	B030543	130.5	114.0	122.3	35
31	D04*5546	131.0	115.5	117.8	19
32	D04-5012	129.0	114.5	116.9	16
33	GA991336-6E9	126.0	112.5	113.3	5
34	GA991209-6E33	125.0	110.0	112.3	4
35	GA991371-6E13	126.0	112.5	114.8	9
36	GA991227-6A33	127.0	114.0	116.8	15
37	W98007V1	126.0	112.0	119.7	23
38	W98008J1	125.0	108.0	114.4	6
39	W98008P1	124.0	104.0	106.8	1
40	G59160	132.0	118.0	124.7	42
41	G61505	132.5	116.0	123.7	38
42	G41732	127.0	114.5	120.3	26
LOCATION MEANS		127.6	113.3	118.3	

HEIGHT (inches)

		Belle Mina AL	Castle Co. DE	Quincy FL	Griffin GA	Plains GA	Aberdeen ID
		Glass	Uniatowski	Barnett/Blount	Johnson	Johnson	Bockelman
1	AGS 2000	37	41	45	30	37	33.3
2	Pioneer Brand 26R61	37	40	47	37	38	35.7
3	Coker 9553	36	40	41	33	37	35.3
4	USG 3555	31	36	43	32	34	32.0
5	NC03-6228	34	37	40	31	34	32.3
6	NC03-8026	34	38	44	32	35	34.0
7	VA04W-259	34	35	43	33	36	33.7
8	LA99005UC-31-3-C	36	36	47	28	37	32.3
9	LA98214D-14-1-2-B	37	40	43	33	37	30.7
10	MO011126	38	38	40	36	39	36.3
11	NC04-15533	36	38	39	36	37	34.7
12	NC04-20814	36	37	40	33	36	35.3
13	LA01140D-70	40	42	40	32	37	34.7
14	LA01138D-52	39	43	37	31	37	35.7
15	AR96077-7-2	35	38	37	30	31	34.3
16	AR97124-4-3	43	42	42	36	39	39.3
17	P992231A1-2-1	36	36	44	33	35	36.7
18	P03112A1-7-14	36	37	41	33	35	36.3
19	P04287A1-10	36	39	39	37	35	36.3
20	VA05W-250	38	38	43	34	37	33.7
21	VA05W-258	39	41	39	37	38	36.7
22	VA05W-78	33	36	44	28	31	32.0
23	MD01W233-05-1	34	34	41	31	32	31.0
24	MD01W233-06-16	35	35	43	34	33	30.0
25	MD01W233-06-1	37	36	41	37	36	33.7
26	TN801	44	45	38	36	44	39.0
27	M04-4715	38	37	42	36	37	34.0
28	M04*5109	39	40	42	39	39	38.0
29	M03-3616-C	36	37	38	35	37	35.3
30	B030543	36	38	42	33	38	36.3
31	D04*5546	35	40	40	32	34	37.0
32	D04-5012	36	42	37	35	35	38.0
33	GA991336-6E9	37	39	39	30	42	34.3
34	GA991209-6E33	36	41	37	33	39	32.7
35	GA991371-6E13	37	35	38	26	36	33.0
36	GA991227-6A33	32	37	42	30	30	31.3
37	W98007V1	37	41	39	31	37	36.0
38	W98008J1	38	42	39	32	38	36.3
39	W98008P1	35	39	44	31	39	31.3
40	G59160	38	40	41	34	39	33.7
41	G61505	38	40	41	32	41	35.3
42	G41732	36	38	39	34	39	35.0
LOCATION MEANS		36.5	38.7	41.0	33.0	36.6	34.6

HEIGHT (inches)

		Irvington IL Fogleman	Evansville IN Ohm	Lafayette IN Moreno	Tipton IN Brown	Logan Co. KY Van Sanford	Woodford Co. KY Van Sanford
1	AGS 2000	37.8	35.5	38	39	37.5	35.0
2	Pioneer Brand 26R61	36.2	40.5	42	39	39.5	35.0
3	Coker 9553	36.6	36.5	40	42	39.5	34.5
4	USG 3555	31.9	33.0	33	35	37.0	29.5
5	NC03-6228	33.1	33.0	34	38	36.5	32.0
6	NC03-8026	35.4	35.0	36	39	38.5	33.0
7	VA04W-259	33.5	33.0	35	36	38.0	30.0
8	LA99005UC-31-3-C	36.6	34.5	32	38	35.5	33.5
9	LA98214D-14-1-2-B	37.4	38.5		35	38.0	34.5
10	MO011126	38.6	38.5	42	41	42.5	34.5
11	NC04-15533	36.6	37.0	39	41	39.0	32.0
12	NC04-20814	36.6	35.5	38	38	40.0	31.0
13	LA01140D-70	38.2	39.5	36	42	41.5	36.0
14	LA01138D-52	40.2	38.5	37	41	37.5	35.5
15	AR96077-7-2	34.3	33.0	34	33	38.5	32.5
16	AR97124-4-3	41.7	40.0	42	42	44.0	38.0
17	P992231A1-2-1	30.7	34.0	34	34	38.0	32.0
18	P03112A1-7-14	32.7	33.0	37	36	40.0	33.5
19	P04287A1-10	35.4	36.0	37	38	41.5	32.5
20	VA05W-250	37.8	38.5	37	38	40.5	32.0
21	VA05W-258	36.6	39.0	40	42	43.5	33.5
22	VA05W-78	33.9	34.5	36	38	37.0	30.0
23	MD01W233-05-1	33.1	34.0	36	37	37.5	30.5
24	MD01W233-06-16	33.5	35.0	38	38	38.5	30.0
25	MD01W233-06-1	33.9	36.5	38	39	40.0	30.5
26	TN801	44.9	43.0	45	47	45.5	37.0
27	M04-4715	35.8	37.5	36	38	40.5	34.5
28	M04*5109	40.2	40.0	42	44	42.5	33.5
29	M03-3616-C	34.3	36.0	36	38	39.0	31.0
30	B030543	34.6	37.0	37	40	39.5	33.5
31	D04*5546	35.8	38.0	39	41	39.5	32.0
32	D04-5012	38.2	36.5	38	40	42.0	33.5
33	GA991336-6E9	37.0	34.0	37	38	34.5	33.5
34	GA991209-6E33	37.4	36.0	36	39	38.0	36.5
35	GA991371-6E13	37.0	34.5	32	39	36.0	32.0
36	GA991227-6A33	34.3	32.0	30	33	35.5	31.5
37	W98007V1	35.4	34.5	38	38	37.5	32.5
38	W98008J1	37.0	36.5	39	43	41.0	35.0
39	W98008P1	35.4	32.5	36	37	37.0	33.0
40	G59160	39.4	40.5	38	42	41.0	33.0
41	G61505	37.0	39.5	40	39	41.5	30.5
42	G41732	35.0	35.5	35	39	42.0	34.0
LOCATION MEANS		36.2	36.3	37.2	38.9	39.3	33.0

HEIGHT (inches)

		Baton Rouge LA Harrison	Winnsboro LA Harrison	Queenstown MD Costa	Portageville MO McKendry	Newton MS White	Kinston NC Murphy
1	AGS 2000	36.5	41.0	36.5	34	38	30.1
2	Pioneer Brand 26R61	41.5	45.0	40.0	35	39	33.3
3	Coker 9553	36.5	36.0	37.0	34	40	33.1
4	USG 3555	35.0	32.5	34.0	31	34	31.7
5	NC03-6228	35.0	35.5	37.0	33	35	34.3
6	NC03-8026	36.5	35.0	39.0	35	37	34.4
7	VA04W-259	33.5	34.5	34.5	32	34	31.7
8	LA99005UC-31-3-C	36.0	40.0	36.0	31	38	27.4
9	LA98214D-14-1-2-B	40.5	41.5	37.0	33	37	33.5
10	MO011126	33.5	41.5	36.0	36	39	33.5
11	NC04-15533	35.0	35.0	38.0	33	35	31.5
12	NC04-20814	34.0	32.5	35.5	33	36	31.7
13	LA01140D-70	43.5	50.0	40.0	35	42	34.8
14	LA01138D-52	42.5	45.0	36.5	36	40	32.5
15	AR96077-7-2	34.5	35.5	35.0	34	29	31.5
16	AR97124-4-3	38.5	38.0	40.0	38	39	37.0
17	P992231A1-2-1	32.0	30.5	37.5	35	39	31.9
18	P03112A1-7-14	32.0	32.0	37.0	33	35	31.9
19	P04287A1-10	34.5	38.5	38.5	35	37	33.1
20	VA05W-250	35.5	34.0	38.5	34	37	33.5
21	VA05W-258	39.5	40.5	39.0	34	39	36.2
22	VA05W-78	35.5	36.5	35.5	33	35	29.7
23	MD01W233-05-1	34.5	37.0	34.0	32	37	31.3
24	MD01W233-06-16	34.0	30.0	33.0	31	35	31.3
25	MD01W233-06-1	35.0	38.0	35.5	33	40	32.7
26	TN801	32.0	31.0	45.0	34	40	38.6
27	M04-4715	36.0	34.5	37.0	34	36	33.9
28	M04*5109	37.0	38.5	39.0	36	34	35.0
29	M03-3616-C	30.0	29.0	37.0	33	43	32.3
30	B030543	35.5	38.0	35.5	34	39	34.3
31	D04*5546	37.5	39.0	36.5	35	41	33.3
32	D04-5012	38.5	41.0	39.0	34	42	35.8
33	GA991336-6E9	39.5	42.0	35.5	36	40	30.9
34	GA991209-6E33	41.0	43.0	36.0	34	40	32.3
35	GA991371-6E13	39.0	39.0	33.5	34	35	30.1
36	GA991227-6A33	35.5	38.0	36.0	30	36	30.3
37	W98007V1	32.0	38.0	37.5	33	40	34.8
38	W98008J1	38.5	38.5	40.5	36	41	37.8
39	W98008P1	40.0	37.5	40.0	31	36	29.1
40	G59160	35.5	35.0	37.5	35	42	34.1
41	G61505	38.5	34.0	37.5	35	39	32.9
42	G41732	36.5	39.5	39.5	34	38	35.2
LOCATION MEANS		36.4	37.4	37.2	33.8	37.8	33.0

HEIGHT (inches)

		Wooster OH	Florence SC	Prosper TX	Blacksburg VA	Warsaw VA
		Sneller	Edge	Sutton	Griffey	Griffey
1	AGS 2000	36	37.5	35.7	38.5	35.0
2	Pioneer Brand 26R61	40	39.0	34.3	39.5	37.5
3	Coker 9553	39	35.0	34.7	39.0	36.5
4	USG 3555	35	34.0	32.0	35.0	32.5
5	NC03-6228	37	37.5	32.0	37.5	34.0
6	NC03-8026	38	35.5	30.3	37.0	34.5
7	VA04W-259	37	36.5	31.0	35.5	33.5
8	LA99005UC-31-3-C	34	33.5	31.7	37.0	35.5
9	LA98214D-14-1-2-B	35	35.0	33.7	37.0	34.5
10	MO011126	41	37.5	34.0	40.0	35.5
11	NC04-15533	38	36.5	31.0	38.5	34.0
12	NC04-20814	39	33.5	32.7	37.5	34.5
13	LA01140D-70	42	39.0	36.0	38.5	39.5
14	LA01138D-52	35	37.5	33.3	38.0	35.0
15	AR96077-7-2	34	35.0	28.7	36.5	30.5
16	AR97124-4-3	42	41.0	35.7	42.0	38.0
17	P992231A1-2-1	36	36.0	33.3	37.5	38.0
18	P03112A1-7-14	35	34.0	29.3	38.5	36.0
19	P04287A1-10	37	35.5	33.7	39.0	36.0
20	VA05W-250	39	35.5	34.3	39.5	35.0
21	VA05W-258	42	37.0	33.7	40.0	37.5
22	VA05W-78	36	33.0	29.0	36.5	32.0
23	MD01W233-05-1	36	34.0	28.0	36.5	34.0
24	MD01W233-06-16	36	34.5	30.0	37.0	33.5
25	MD01W233-06-1	37	37.0	33.7	38.5	36.5
26	TN801	43	40.0	35.0	42.0	39.5
27	M04-4715	38	36.5	32.0	37.5	34.5
28	M04*5109	39	38.5	34.7	40.5	37.5
29	M03-3616-C	37	33.0	31.7	38.5	34.5
30	B030543	37	37.0	33.3	40.0	36.0
31	D04*5546	37	35.5	33.0	39.0	35.5
32	D04-5012	38	37.5	33.0	39.5	37.5
33	GA991336-6E9	34	37.5	33.0	37.5	34.5
34	GA991209-6E33	38	37.0	34.3	38.5	35.0
35	GA991371-6E13	33	33.0	32.7	37.0	30.5
36	GA991227-6A33	32	34.0	32.7	36.0	30.0
37	W98007V1	38	38.5	33.0	37.0	34.5
38	W98008J1	37	40.5	30.3	38.5	37.5
39	W98008P1	35	33.0	29.0	36.0	34.0
40	G59160	40	34.5	34.0	40.0	38.0
41	G61505	40	39.0	35.7	40.0	36.0
42	G41732	38	36.0	32.7	40.5	36.5
LOCATION MEANS		37.4	36.2	32.7	38.3	35.3

HEIGHT (inches)

		ENTRY MEANS ALL LOCATIONS	
			rank
1	AGS 2000	36.7	17
2	Pioneer Brand 26R61	38.7	4
3	Coker 9553	37.1	13
4	USG 3555	33.7	41
5	NC03-6228	34.9	34
6	NC03-8026	35.9	27
7	VA04W-259	34.5	35
8	LA99005UC-31-3-C	35.1	32
9	LA98214D-14-1-2-B	36.4	21
10	MO011126	37.9	8
11	NC04-15533	36.1	26
12	NC04-20814	35.5	28
13	LA01140D-70	39.1	3
14	LA01138D-52	37.5	11
15	AR96077-7-2	33.7	40
16	AR97124-4-3	39.9	2
17	P992231A1-2-1	35.2	31
18	P03112A1-7-14	35.0	33
19	P04287A1-10	36.5	20
20	VA05W-250	36.7	19
21	VA05W-258	38.4	6
22	VA05W-78	34.1	39
23	MD01W233-05-1	34.1	38
24	MD01W233-06-16	34.3	37
25	MD01W233-06-1	36.3	24
26	TN801	40.4	1
27	M04-4715	36.4	22
28	M04*5109	38.6	5
29	M03-3616-C	35.3	29
30	B030543	36.7	18
31	D04*5546	36.8	16
32	D04-5012	37.7	9
33	GA991336-6E9	36.3	23
34	GA991209-6E33	37.0	14
35	GA991371-6E13	34.4	36
36	GA991227-6A33	33.4	42
37	W98007V1	36.2	25
38	W98008J1	38.0	7
39	W98008P1	35.3	30
40	G59160	37.6	10
41	G61505	37.5	12
42	G41732	36.9	15
LOCATION MEANS		36.4	

LODGING

		Stuttgart AR	Castle Co. DE	Quincy FL	Griffin GA	Plains GA	Evansville IN
		Bacon	Uniatowski	Barnett/Blount	Johnson	Johnson	Ohm
		0-9	0-9	0-9	%	%	0-9
1	AGS 2000	2	0	5	10	30	4.5
2	Pioneer Brand 26R61	0	0	8	5	15	4.0
3	Coker 9553	0	0	7	10	30	4.0
4	USG 3555	0	1	6	10	10	3.5
5	NC03-6228	6	1	7	70	40	3.5
6	NC03-8026	5	1	6	60	40	4.5
7	VA04W-259	5	1	6	60	30	3.5
8	LA99005UC-31-3-C	0	1	5	10	10	4.0
9	LA98214D-14-1-2-B	4	1	7	15	60	4.0
10	MO011126	1	1	6	70	40	4.5
11	NC04-15533	2	1	4	70	10	5.0
12	NC04-20814	2	1	3	80	5	4.0
13	LA01140D-70	3	1	5	80	30	4.0
14	LA01138D-52	1	1	3	30	30	4.0
15	AR96077-7-2	1	1	4	0	0	2.5
16	AR97124-4-3	3	1	5	90	30	5.0
17	P992231A1-2-1	0	1	2	0	0	2.5
18	P03112A1-7-14	3	1	4	0	0	3.0
19	P04287A1-10	0	1	6	15	5	3.0
20	VA05W-250	0	1	5	80	70	4.5
21	VA05W-258	3	1	3	20	30	4.5
22	VA05W-78	6	1	3	5	20	4.5
23	MD01W233-05-1	8	1	4	50	20	3.5
24	MD01W233-06-16	9	1	4	40	30	3.5
25	MD01W233-06-1	2	1	4	70	40	4.0
26	TN801	2	1	4	90	44	6.5
27	M04-4715	2	1	6	5	20	4.5
28	M04*5109	4	1	5	25	10	4.5
29	M03-3616-C	1	1	3	5	0	3.5
30	B030543	1	1	3	10	10	4.0
31	D04*5546	0	1	4	10	20	4.5
32	D04-5012	0	1	6	90	30	4.5
33	GA991336-6E9	0	1	6	5	50	4.0
34	GA991209-6E33	0	1	8	10	40	4.0
35	GA991371-6E13	0	1	6	15	40	3.5
36	GA991227-6A33	4	1	4	80	80	3.0
37	W98007V1	5	1	7	80	70	4.5
38	W98008J1	4	1	7	80	20	7.0
39	W98008P1	0	1	6	0	5	3.0
40	G59160	4	1	5	40	50	5.0
41	G61505	1	1	6	50	5	4.5
42	G41732	1	1	3	30	20	5.0
LOCATION MEANS		2.3	0.9	5.0	37.5	27.1	4.1

LODGING

		Tipton IN	Logan Co. KY	Baton Rouge LA	Queenstown MD	Cleveland MS	Newton MS
		Brown	Van Sanford	Harrison	Costa	Hancock	White
		1-9	0-9	0-9	0-9	1-9	
1	AGS 2000	1.0	5.5	1.0	4.0	3.0	1
2	Pioneer Brand 26R61	1.0	1.0	1.0	0.5	1.0	1
3	Coker 9553	1.0	1.0	2.5	1.5	1.5	1
4	USG 3555	1.0	2.0	1.0	1.5	1.0	1
5	NC03-6228	3.0	9.3	1.5	3.0	2.5	2
6	NC03-8026	2.0	6.0	1.0	3.0	1.0	2
7	VA04W-259	2.0	8.5	1.0	2.5	1.5	3
8	LA99005UC-31-3-C	1.0	7.0	0.5	2.0	1.5	1
9	LA98214D-14-1-2-B	1.0	1.0	6.0	5.5	2.5	1
10	MO011126	1.0	1.0	2.5	2.5	1.0	1
11	NC04-15533	2.0	1.0	2.5	1.5	1.0	2
12	NC04-20814	1.0	3.0	1.5	1.0	1.0	2
13	LA01140D-70	1.0	2.0	1.0	1.5	2.0	1
14	LA01138D-52	1.0	3.5	2.5	3.5	2.0	1
15	AR96077-7-2	1.0	1.0	1.0	1.5	1.0	1
16	AR97124-4-3	2.5	1.5	3.5	3.0	2.0	3
17	P992231A1-2-1	1.0	1.5	1.0	1.5	1.0	1
18	P03112A1-7-14	1.0	0.0	2.0	1.5	1.0	1
19	P04287A1-10	1.0	0.0	1.0	2.0	1.0	1
20	VA05W-250	2.0	4.0	4.0	2.0	1.0	3
21	VA05W-258	1.0	1.0	2.5	2.5	1.0	1
22	VA05W-78	1.0	1.5	1.0	1.5	1.5	1
23	MD01W233-05-1	1.0	4.5	2.0	4.5	1.5	4
24	MD01W233-06-16	1.0	4.5	1.0	3.5	1.0	1
25	MD01W233-06-1	1.0	2.0	2.5	3.5	1.0	1
26	TN801	4.0	6.0	7.0	7.5	2.0	4
27	M04-4715	3.0	3.5	1.0	1.0	1.0	4
28	M04*5109	1.0	3.5	5.5	2.5	1.5	4
29	M03-3616-C	4.5	0.0	2.5	1.5	1.0	1
30	B030543	2.0	3.5	3.5	2.5	1.0	1
31	D04*5546	2.0	0.0	1.0	1.5	1.0	1
32	D04-5012	4.0	2.5	7.5	8.0	1.0	1
33	GA991336-6E9	1.0	4.0	1.0	5.5	1.0	1
34	GA991209-6E33	1.0	1.5	1.0	0.5	1.5	1
35	GA991371-6E13	1.0	2.5	2.5	3.0	2.0	1
36	GA991227-6A33	1.0	5.5	3.0	5.0	1.5	3
37	W98007V1	6.5	8.8	4.0	4.5	2.5	4
38	W98008J1	2.5	8.0	3.0	2.5	2.5	1
39	W98008P1	1.0	4.5	1.0	3.0	1.0	1
40	G59160	3.0	2.0	3.5	6.0	1.0	2
41	G61505	1.5	1.5	4.5	1.5	1.0	1
42	G41732	1.0	0.5	4.0	4.0	1.5	1
LOCATION MEANS		1.7	3.1	2.4	2.9	1.4	1.7

LODGING

		Blacksburg VA Griffey 0-9	Warsaw VA Griffey 0-9	Oconto WI Cisar 0-9
1	AGS 2000	9.0	4.5	2
2	Pioneer Brand 26R61	7.5	1.0	0
3	Coker 9553	3.5	2.0	0
4	USG 3555	5.5	3.0	0
5	NC03-6228	8.5	6.0	2
6	NC03-8026	8.0	5.5	4
7	VA04W-259	8.5	6.5	2
8	LA99005UC-31-3-C	1.5	2.0	0
9	LA98214D-14-1-2-B	8.5	5.0	0
10	MO011126	8.5	4.0	2
11	NC04-15533	7.0	5.0	1
12	NC04-20814	7.5	4.0	3
13	LA01140D-70	7.5	3.5	0
14	LA01138D-52	7.0	3.5	4
15	AR96077-7-2	4.0	4.0	3
16	AR97124-4-3	6.5	5.0	7
17	P992231A1-2-1	1.5	2.5	2
18	P03112A1-7-14	0.0	1.5	2
19	P04287A1-10	0.5	3.0	5
20	VA05W-250	9.0	6.0	3
21	VA05W-258	8.0	3.0	2
22	VA05W-78	8.5	4.5	1
23	MD01W233-05-1	1.0	5.0	6
24	MD01W233-06-16	7.5	6.0	3
25	MD01W233-06-1	7.5	5.0	3
26	TN801	9.0	6.0	5
27	M04-4715	6.5	4.5	1
28	M04*5109	7.5	4.0	2
29	M03-3616-C	1.0	2.0	2
30	B030543	4.0	5.5	5
31	D04*5546	4.0	3.0	1
32	D04-5012	7.0	6.0	3
33	GA991336-6E9	4.5	5.0	1
34	GA991209-6E33	4.5	4.5	1
35	GA991371-6E13	5.0	6.5	0
36	GA991227-6A33	8.5	7.5	2
37	W98007V1	9.0	7.0	7
38	W98008J1	8.0	5.0	5
39	W98008P1	3.5	2.5	0
40	G59160	7.5	5.5	3
41	G61505	5.5	4.5	5
42	G41732	2.0	4.0	5
LOCATION MEANS		5.9	4.4	2.5

WINTER DAMAGE

		Brookston IN Fogleman winter kill 0-9	Lafayette IN Moreno spring vigor 1-9	Tipton IN Brown winter kill 1-9	Portageville MO McKendry winter kill 0-9	Laurel Springs NC Marshall winter stress 0-9	Oconto WI Cisar winter kill 0-9
1	AGS 2000	9.0	8	6.0	1	4	4
2	Pioneer Brand 26R61	8.9	5	2.5	2	1	3
3	Coker 9553	8.5	6	1.0	2	2	2
4	USG 3555	9.0	7	3.0	1	5	5
5	NC03-6228	9.0	8	2.5	2	4	2
6	NC03-8026	8.5	8	2.3	1	2	6
7	VA04W-259	8.5	8	2.0	2	2	4
8	LA99005UC-31-3-C	9.0	9	4.0	3	4	5
9	LA98214D-14-1-2-B	9.0	9	8.5	2	5	3
10	MO011126	8.1	3	2.3	1	1	6
11	NC04-15533	9.0	8	2.3	2	1	1
12	NC04-20814	8.9	8	2.5	3	1	3
13	LA01140D-70	9.0	9	5.0	2	4	4
14	LA01138D-52	9.0	9	7.3	1	5	6
15	AR96077-7-2	9.0	8	2.8	3	3	6
16	AR97124-4-3	5.7	1	1.0	1	0	1
17	P992231A1-2-1	6.4	2	1.0	2	0	0
18	P03112A1-7-14	7.5	3	2.5	2	0	2
19	P04287A1-10	7.2	3	1.8	2	1	0
20	VA05W-250	9.0	6	2.0	1	4	2
21	VA05W-258	8.9	4	2.3	1	3	0
22	VA05W-78	7.9	5	1.5	1	2	3
23	MD01W233-05-1	7.7	6	1.0	2	2	3
24	MD01W233-06-16	8.4	5	1.0	2	1	4
25	MD01W233-06-1	7.6	6	1.5	1	2	4
26	TN801	8.9	8	1.5	1	1	3
27	M04-4715	6.0	2	1.8	2	1	3
28	M04*5109	7.7	5	2.0	1	2	5
29	M03-3616-C	5.9	1	1.0	1	0	4
30	B030543	6.7	6	1.0	3	1	2
31	D04*5546	6.8	5	1.0	1	1	0
32	D04-5012	6.4	7	1.5	2	2	2
33	GA991336-6E9	9.0	9	4.5	2	2	3
34	GA991209-6E33	8.5	8	3.5	2	2	3
35	GA991371-6E13	9.0	9	4.3	2	3	2
36	GA991227-6A33	9.0	9	3.5	2	2	3
37	W98007V1	8.0	7	2.0	1	2	1
38	W98008J1	7.8	8	1.8	2	1	0
39	W98008P1	9.0	9	8.3	2	6	3
40	G59160	6.7	7	1.8	3	1	0
41	G61505	6.7	5	1.5	3	1	2
42	G41732	6.9	5	1.0	3	1	2
LOCATION MEANS		8.0	6.3	2.6	1.8	2.1	2.8
GROWTH STAGE / DATE		April 14		April 21			

LEAF RUST

		Belle Mina AL Glass	Plains GA Johnson	Lafayette IN Moreno	Tipton IN Brown	Winfield KS Perry	Baton Rouge LA Harrison
		0-9	0-9	1-9	1-9		
1	AGS 2000	0	1	2	1	1	0
2	Pioneer Brand 26R61	0	2	3	1	5	0
3	Coker 9553	0	4	3	2	5	50
4	USG 3555	0	3	2	1	0	0
5	NC03-6228	0	2	1	1	1	5
6	NC03-8026	0	1	2	1	2	5
7	VA04W-259	0	TR	1	1	0	0
8	LA99005UC-31-3-C	0	1	1	1	1	0
9	LA98214D-14-1-2-B	0	0		1	2	0
10	MO011126	0	6	6	2	6	10
11	NC04-15533	0	2	3	2	0	0
12	NC04-20814	0	1	4	1	1	0
13	LA01140D-70	0	1	1	1	1	0
14	LA01138D-52	1	0	1	1	2	0
15	AR96077-7-2	0	5	1	1	0	0
16	AR97124-4-3	0	0	3	1	6	0
17	P992231A1-2-1	0	0	1	1	3	0
18	P03112A1-7-14	0	1	7	4	3	0
19	P04287A1-10	0	TR	2	2	1	0
20	VA05W-250	1	1	3	3	9	0
21	VA05W-258	0	TR	3	1	7	10
22	VA05W-78	0	0	1	1	1	0
23	MD01W233-05-1	0	2	1	1	1	10
24	MD01W233-06-16	0	0	1	1	2	0
25	MD01W233-06-1	2	5	4	3	2	30
26	TN801	1	3	3	3	7	15
27	M04-4715	1	3	2	4	4	0
28	M04*5109	0	7	7	7	7	35
29	M03-3616-C	1	3	5	7	3	10
30	B030543	0	4	1	4	1	5
31	D04*5546	0	0	1	1	1	0
32	D04-5012	0	5	5	3	5	75
33	GA991336-6E9	0	0	1	1	1	3
34	GA991209-6E33	0	0	1	1	1	0
35	GA991371-6E13	0	0	1	1	2	0
36	GA991227-6A33	0	1	2	1	2	0
37	W98007V1	0	4	2	2.5	8	0
38	W98008J1	1	4	6	4	4	0
39	W98008P1	0	3	7	1	4	5
40	G59160	0	1	3	1	5	5
41	G61505	0	4	4	3	5	0
42	G41732	0	5	7	4	3	20
LOCATION MEANS		0.2	2.2	2.8	2.0	3.0	7.0
GROWTH STAGE / DATE					June 24		

LEAF RUST

		Winnsboro LA Harrison		St Paul MN Kolmer	Cleveland MS Hancock	Kinston NC Murphy	Prosper TX Sutton
		%	0-9		1-9		1-9
1	AGS 2000	0.0	1.5	50MS/5R	1.5	1.1	0.0
2	Pioneer Brand 26R61	1.0	2.5	5RMR	1.0	3.5	5.3
3	Coker 9553	7.5	6.0	10MRMS	4.0	6.1	3.3
4	USG 3555	5.0	9.0	5M	3.0	7.0	3.0
5	NC03-6228	0.0	3.0	5M	1.5	1.5	1.7
6	NC03-8026	1.5	2.0	20MRMS	3.0	3.5	1.0
7	VA04W-259	0.5	4.0	10MRMS	3.0	0.5	4.3
8	LA99005UC-31-3-C	0.0	2.0	5RMR	1.5	.	1.0
9	LA98214D-14-1-2-B	1.5	1.0	TR	1.0	1.5	0.7
10	MO011126	12.5	9.0	30MS	4.5	5.5	6.3
11	NC04-15533	1.5	3.0	TR	1.5	1.0	3.0
12	NC04-20814	0.0	3.5	TR	2.0	1.0	0.3
13	LA01140D-70	0.0	3.0	TR	1.0	1.5	3.3
14	LA01138D-52	0.0	1.5	5R	1.0	1.0	1.0
15	AR96077-7-2	2.5	5.0	5R	2.0	1.0	5.3
16	AR97124-4-3	0.0	3.0	10MRMS	1.0	3.1	5.3
17	P992231A1-2-1	2.0	1.0	10MRMS	2.0	0.5	4.3
18	P03112A1-7-14	7.5	7.5	10S	3.0	6.5	8.3
19	P04287A1-10	0.5	3.5	TR	2.0	2.0	3.3
20	VA05W-250	10.0	7.0	30S	2.5	1.0	5.3
21	VA05W-258	0.0	9.0	30S	4.0	4.8	7.0
22	VA05W-78	0.0	9.0	5R	2.0	2.5	0.0
23	MD01W233-05-1	17.5	5.5	80S/10MRMS	1.5	4.0	0.3
24	MD01W233-06-16	5.0	6.5	20MS	2.0	2.5	1.0
25	MD01W233-06-1	22.5	7.0	30MRMS	3.0	2.5	6.0
26	TN801	42.5	9.0	20MSS	3.0	1.5	6.7
27	M04-4715	1.5	6.0	40MRMS	2.5	4.0	3.3
28	M04*5109	32.5	9.0	30MRMS	5.0	7.5	7.0
29	M03-3616-C	39.0	4.5	30MRMS	2.5	5.0	8.3
30	B030543	4.0	5.5	20RMR	2.5	6.0	6.3
31	D04*5546	0.0	1.0	TR	1.5	0.5	3.3
32	D04-5012	65.0	8.0	30MRMS	6.0	5.0	6.3
33	GA991336-6E9	0.0	2.5	TR	1.0	1.1	1.7
34	GA991209-6E33	0.0	1.5	TR	1.5	1.0	0.7
35	GA991371-6E13	0.5	1.0	TR	1.0	1.1	2.7
36	GA991227-6A33	3.0	2.0	10MR	1.0	.	2.3
37	W98007V1	4.0	5.5	10M	3.0	3.0	5.7
38	W98008J1	32.5	7.0	30MRMS	4.5	8.0	7.0
39	W98008P1	5.0		missing	2.0	.	9.0
40	G59160	12.5	3.5	30MRMS	3.5	6.5	4.7
41	G61505	7.5	9.0	30S	3.5	4.0	7.3
42	G41732	30.0	9.0	30MS	4.0	8.0	5.7
LOCATION MEANS		9.0	4.9		2.4	3.3	4.0
GROWTH STAGE / DATE		April 16	May 2				

LEAF RUST

		Blacksburg VA Griffey	Warsaw VA Griffey
		0-9	0-9
1	AGS 2000	1.5	1.0
2	Pioneer Brand 26R61	0.0	2.5
3	Coker 9553	2.5	1.0
4	USG 3555	4.0	2.5
5	NC03-6228	1.0	0.0
6	NC03-8026	0.0	0.0
7	VA04W-259	1.0	0.0
8	LA99005UC-31-3-C	0.5	0.0
9	LA98214D-14-1-2-B	0.0	1.0
10	MO011126	3.0	1.5
11	NC04-15533	0.0	0.5
12	NC04-20814	0.0	0.0
13	LA01140D-70	0.0	1.0
14	LA01138D-52	0.0	3.5
15	AR96077-7-2	1.0	0.0
16	AR97124-4-3	0.0	0.0
17	P992231A1-2-1	0.0	0.0
18	P03112A1-7-14	2.0	4.5
19	P04287A1-10	0.0	0.0
20	VA05W-250	1.0	0.0
21	VA05W-258	3.0	2.5
22	VA05W-78	5.5	6.0
23	MD01W233-05-1	1.0	0.5
24	MD01W233-06-16	5.0	0.5
25	MD01W233-06-1	2.0	0.0
26	TN801	0.5	0.0
27	M04-4715	0.5	0.0
28	M04*5109	3.5	1.0
29	M03-3616-C	1.0	1.5
30	B030543	1.5	0.5
31	D04*5546	0.0	0.5
32	D04-5012	0.5	0.0
33	GA991336-6E9	0.0	0.5
34	GA991209-6E33	1.5	0.5
35	GA991371-6E13	0.0	2.0
36	GA991227-6A33	0.0	0.5
37	W98007V1	0.5	0.0
38	W98008J1	2.5	5.0
39	W98008P1	1.5	0.0
40	G59160	0.5	0.0
41	G61505	1.0	1.5
42	G41732	3.0	2.5
LOCATION MEANS		1.2	1.1
GROWTH STAGE / DATE			

LEAF RUST

St Paul
MN
Long

		Reactions produced by NA race* **							Postulated
		BBBD	MFPS	MLDS	TCRK	TJBG	TDBG	TNRJ	genes***
1	AGS 2000	;	;1c2	;1c	;1c	;1c	;1c	;	26
2	Pioneer Brand 26R61	;	3;1c	;1c	3	;2c	;	;	26
3	Coker 9553	;	;	;1c	3	;1c2	;	3	11,
4	USG 3555	;	;3	;	23;	;	;	;	26,+
5	NC03-6228	;	;	;1c	3	;	;1c	;1c	11,26
6	NC03-8026	;	3	;1c	;1c	;1c2	;1c	;1c	24,26
7	VA04W-259	;	;	;1c	;1c2	;2c	;2c	;1c2	+
8	LA99005UC-31-3-C	;	;	;	3	;	;	3	11
9	LA98214D-14-1-2-B	;	;1c	;1c	3	;	;1	;1c	11,26
10	MO011126	3;	3	3	3	3	3	3	0
11	NC04-15533	;	;1c	;1c	;1c3	;1c	;1c	;1c	+
12	NC04-20814	;	;1c	;	;1c	;	;1c	;	+
13	LA01140D-70	;-3	3	;2	;	3	3	3;	24,+
14	LA01138D-52	;	3-1c;	3-;	;1c	;1c2	3-1c;	;	+
15	AR96077-7-2	;	;1c	;	3	;	;	;	11,26
16	AR97124-4-3	;	;-3	3	;	0;	0;	3	9
17	P992231A1-2-1	;	;-3	;	;	;1c	;1c	;1c	+
18	P03112A1-7-14	;	;	;	;-3	;1c2	;1c	;	+
19	P04287A1-10	;1c	;1c	;	;1c	;	;1c	;1c	
20	VA05W-250	;	;	;-3	;	0;	;	3	9
21	VA05W-258	;	;	3	;	;	;	3	9
22	VA05W-78	;	;	;	;	;	;	3	11,24
23	MD01W233-05-1	;	;-3	;	;	;1c	;1c	3	11,24
24	MD01W233-06-16	;	;	;	;	;	;	3	11,24
25	MD01W233-06-1	;-3	;	;-3	;	;-3	;	3	11,24
26	TN801	;	;	3	;1c	;	;	3	9
27	M04-4715	;	;	;	;	;	;	;	+
28	M04*5109	;	;-3	;1c	3	;	;1c	3	11
29	M03-3616-C	;	3	3-;	;1c	;1c	;1c	;1c	24,26
30	B030543	3	3	3	3;	3	3	3	0
31	D04*5546	;	;	;	;	;	;	;	+
32	D04-5012	;	;	3	;	;	;	3	9
33	GA991336-6E9	;	;1c2	3	;	3	3	3-;	+
34	GA991209-6E33	;	3;	;1c	;1c	;1c1	;1c	;	+
35	GA991371-6E13	;	;2c	3;	;	3	;3	3-;	+
36	GA991227-6A33	;	;1c23	;	;	;1c1	;1c	;	+
37	W98007V1	;	;	3	;2	;1	;	3	9
38	W98008J1	;	;1c	;	3	;1	;1c	;1c	11,26
39	W98008P1	;1c	;	;	3	;	;	;	11,26
40	G59160	3	3	3	3	3	3	3	0
41	G61505	;	;	;	;1c2	;	;1c2	3;	+
42	G41732	3	3	3	3	3	3	3	0

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

**Virulence formula:

BBBD=14a

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

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

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

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

TDBG=1,2a,2c,3,10,24

TNRJ=1.2a.2c.3.3ka.9.10.11.14a.24.30

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

STEM RUST

		St Paul MN Jin
1	AGS 2000	10R-MR/10MS (2 plts)
2	Pioneer Brand 26R61	5R
3	Coker 9553	50S
4	USG 3555	5R-MR (1 plt)
5	NC03-6228	20S/0
6	NC03-8026	5R-MR
7	VA04W-259	10MS
8	LA99005UC-31-3-C	50S
9	LA98214D-14-1-2-B	5MS
10	MO011126	80S
11	NC04-15533	5MS
12	NC04-20814	5MR
13	LA01140D-70	40S
14	LA01138D-52	0
15	AR96077-7-2	20MS/70S
16	AR97124-4-3	80S
17	P992231A1-2-1	TMS
18	P03112A1-7-14	5MR
19	P04287A1-10	0
20	VA05W-250	80S
21	VA05W-258	70S
22	VA05W-78	30MR
23	MD01W233-05-1	70S
24	MD01W233-06-16	20R-MR
25	MD01W233-06-1	20MR
26	TN801	50S
27	M04-4715	60S
28	M04*5109	60S
29	M03-3616-C	20MR
30	B030543	10MR-MS
31	D04*5546	10R
32	D04-5012	60S
33	GA991336-6E9	10MS
34	GA991209-6E33	10MR
35	GA991371-6E13	10S/0
36	GA991227-6A33	5MR
37	W98007V1	80S
38	W98008J1	70S
39	W98008P1	0 (1 plt)
40	G59160	50S
41	G61505	80S
42	G41732	20MS-S

STEM RUST

St Paul
MN
Jin

		US races					
		QFCS	QTHJ	RCRS	RKQQ	TPMK	TTTT
		06ND76C	75ND717C	77ND82A	99KS76A-1	74MN1407	01MN89A-1-2
		37916	37916	37916	37916	37916	37916
1	AGS 2000	0;	0	1	2	2	2
2	Pioneer Brand 26R61	2	0	1	2	2	2
3	Coker 9553	S	S	S	S	S	S
4	USG 3555	0	0	2-	0;	0	;
5	NC03-6228	0	0	S	S LIF	0	S
6	NC03-8026	0	0	2-	0;	0;	;2
7	VA04W-259	0	0	S	S LIF	S LIF	S
8	LA99005UC-31-3-C	0	0	S	S LIF	0	S
9	LA98214D-14-1-2-B	0	0	S LIF	;	0/2	S
10	MO011126	S	-	S	S LIF	S LIF	S
11	NC04-15533	0;/;1	0	S	S	S LIF	S
12	NC04-20814	0	0	2+	S	3;	S
13	LA01140D-70	S/;2/2+	S/;2	S	;23	2+3	2+3
14	LA01138D-52	0;/2	2+/;	;3 LIF	;1	;2	S/2
15	AR96077-7-2	0	0	2/S	S	S	S
16	AR97124-4-3	S	S	S	S	S	S
17	P992231A1-2-1	0	0/S	S	;3-	S/;	0;/S
18	P03112A1-7-14	0	0	0	;	0/S	0
19	P04287A1-10	0	0	;3-	S	S/2	S/2
20	VA05W-250	S	S	S	S/2	S	S
21	VA05W-258	S/2	S	S	S	S	S
22	VA05W-78	2-	2	2	2	2	2
23	MD01W233-05-1	2/S	2/S	2/S	2/S	2+/S	2/S
24	MD01W233-06-16	2-	2	2	2	2+	2
25	MD01W233-06-1	2-	2	2	2	2	2
26	TN801	23-/S	23	S	3;	S	S
27	M04-4715	2/2+	2/S	;13	S	2/S	S/;
28	M04*5109	S	S	S	S	S	S
29	M03-3616-C	0;	2	0;	2	0;	;
30	B030543	;	;	S	S	S	S
31	D04*5546	2	2	2	2	2	2
32	D04-5012	2	2+3-	2	23-	23-	23-
33	GA991336-6E9	2/S	;12	23	23	S	23
34	GA991209-6E33	0	0	12-	2	0;	2
35	GA991371-6E13	0	0;	2+3	;1	S LIF	S
36	GA991227-6A33	0	0	;12-	2-	2	2
37	W98007V1	S	S	S	S	S	S
38	W98008J1	S	S	S	S/2	S	S
39	W98008P1	2+	S	S	S	2+3	S
40	G59160	2+3	S	S	S	S	S
41	G61505	S	S	S	S	S	S
42	G41732	0	0/S	S	3;	S LIF	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 hetergeneous, 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. 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)

STEM RUST

St Paul
MN
Jin

		Preliminary test	Repeated test of selections					
		TTKSK rep1	TTKSK rep2	TTKSK	TTKST	TTTSK	TRTT	
		04KEN156/04	04KEN156/04	04KEN156/04	06KEN19v3	07KEN24-4	06YEM34-1	postulated
		37973	37994	2/3/08	2/3/08	2/3/08	2/3/08	genes
1	AGS 2000	0 esc?	2+ LIF	2+	2+	2+	2-	?
2	Pioneer Brand 26R61	S	S					
3	Coker 9553	S	S					
4	USG 3555	0	0	0	0	S	;2-	Sr36
5	NC03-6228	0	0	0	0	S	S	Sr36
6	NC03-8026	0	0	0	0	S	2	Sr36
7	VA04W-259	0	0;	;12+	;12+	S	S	Sr36?
8	LA99005UC-31-3-C	2	2+	2+	2+	2+	S	?
9	LA98214D-14-1-2-B	2+/S	S	S	S	S	S	
10	MO011126	S LIF	S					
11	NC04-15533	0	0;	0;	0	S	S	Sr36
12	NC04-20814	0	;1	0	0	S	S	Sr36
13	LA01140D-70	S	S					
14	LA01138D-52	S/2	S/2+	2+/S	2+/S	2+/S	2	?
15	AR96077-7-2	0	;1+	0;1	0;1	S	S	Sr36
16	AR97124-4-3	S	S					
17	P992231A1-2-1	-	S					
18	P03112A1-7-14	0	0	0/S	0/S	S	2 LIF	Sr36
19	P04287A1-10	2;	0;	;13-	;13-	S	S	Sr36
20	VA05W-250	S	S					
21	VA05W-258	S	S					
22	VA05W-78	2	2	2	2+	2	2	Sr24
23	MD01W233-05-1	S	S/2	S/2	S	2-/S	S/2	Sr24/
24	MD01W233-06-16	2	2-	2	2	2	2	?
25	MD01W233-06-1	2	2-	2/S	2	2	S	1A.1R
26	TN801	S	S					
27	M04-4715	S	S					
28	M04*5109	S	S					
29	M03-3616-C	S	S					
30	B030543	0	0/S	0/;	0/;	S	S	Sr36
31	D04*5546	S	S					
32	D04-5012	S	S					
33	GA991336-6E9	2+/S	2+/S	S	2+3-	S	S	
34	GA991209-6E33	2+	2+ LIF	2++	2+	2++	0/2	?
35	GA991371-6E13	;	2+3	2+	2+	2++	S	1A.1R
36	GA991227-6A33	0/S LIF	S					
37	W98007V1	2/S	S/2	S	S	S	S	
38	W98008J1	S	S					
39	W98008P1	S	S					
40	G59160	S	S					
41	G61505	S	S					
42	G41732	0	0	0	0	S	S	Sr36

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

race	Avirulence	Virulence
QFCS	6 7b 9b 9e 11 24 30 31 36 38 T	5 8a 9a 9d 9g 10 17 21 McN
QTHJ	7b 9a 9e 24 30 31 36 Tmp 1A.1	5 6 8a 9b 9d 9g 10 11 17 21 38 McN
RCRS	6 8a 9e 11 24 30 31 Tmp 1A.1F	5 7b 9a 9b 9d 9g 10 17 21 38 McN
RKQQ	9e 10 11 17 24 30 31 38 Tmp 1	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

STRIPE RUST

		Griffin GA	Plains GA	Winfield KS	Winnsboro LA	Cleveland MS
		Johnson	Johnson	Perry	Harrison	Hancock
		0-9			%	1-9
1	AGS 2000	7		0	4	2.5
2	Pioneer Brand 26R61	1		0	0	2.0
3	Coker 9553	0		0	0	1.5
4	USG 3555	0		0	0	1.0
5	NC03-6228	9	S	0	20	3.5
6	NC03-8026	6	S	0	2	4.0
7	VA04W-259	3		0	0	2.0
8	LA99005UC-31-3-C	3	S	0	3	2.5
9	LA98214D-14-1-2-B	0		0	1	1.0
10	MO011126	0		0	0	1.0
11	NC04-15533	7		0	0	3.0
12	NC04-20814	7	S	5	0	3.5
13	LA01140D-70	2		0	0	1.0
14	LA01138D-52	1		0	0	1.0
15	AR96077-7-2	3		0	0	1.0
16	AR97124-4-3	0		0	0	1.0
17	P992231A1-2-1	1		0	0	1.0
18	P03112A1-7-14	3		0	3	3.0
19	P04287A1-10	3		0	1	1.5
20	VA05W-250	8	S	0	7	3.5
21	VA05W-258	9	VS	0	50	5.5
22	VA05W-78	9	VS	7	85	7.5
23	MD01W233-05-1	2		4	1	1.0
24	MD01W233-06-16	8	S	4	4	7.5
25	MD01W233-06-1	1		0	0	1.0
26	TN801	4		0	0	3.5
27	M04-4715	9		0	13	4.0
28	M04*5109	6	VS	0	5	1.5
29	M03-3616-C	1		0	1	1.5
30	B030543	1		0	0	1.0
31	D04*5546	2		0	0	1.0
32	D04-5012	3		0	0	1.0
33	GA991336-6E9	0		0	0	1.0
34	GA991209-6E33	3		0	0	1.0
35	GA991371-6E13	1		0	0	1.5
36	GA991227-6A33	1		0	1	1.0
37	W98007V1	2		0	0	1.0
38	W98008J1	4		0	0	1.0
39	W98008P1	8		0	0	1.5
40	G59160	1		0	0	1.5
41	G61505	2		0	0	1.0
42	G41732	4		0	2	2.0
LOCATION MEANS		3.5			4.7	2.1
GROWTH STAGE / DATE					April 16	

STRIPE RUST

		Laurel Springs NC Marshall		Pullman WA Chen	
		IT	%	IT	%
1	AGS 2000	8	30	7	70
2	Pioneer Brand 26R61	3	1	8	80
3	Coker 9553	3	10	2	10
4	USG 3555	3	1	2	5
5	NC03-6228	8	40	8	60
6	NC03-8026	6	30	7	30
7	VA04W-259	6	10	8	80
8	LA99005UC-31-3-C	4	10	3	40
9	LA98214D-14-1-2-B	1	1	2	5
10	MO011126	6	1	4	40
11	NC04-15533	4	40	3	30
12	NC04-20814	8	30	3	20
13	LA01140D-70	3	1	6	40
14	LA01138D-52	0	0	6	30
15	AR96077-7-2	7	20	3	5
16	AR97124-4-3	0	0	3	50
17	P992231A1-2-1	3	10	5	20
18	P03112A1-7-14	6	10	8,3	50,10
19	P04287A1-10	0	0	8	30
20	VA05W-250	7	20	6	70
21	VA05W-258	9	60	8	70
22	VA05W-78	9	100	8	70
23	MD01W233-05-1	7	50	5	60
24	MD01W233-06-16	9	80	7	40
25	MD01W233-06-1	3	10	3	5
26	TN801	6	10	7	20
27	M04-4715	8	50	8	60
28	M04*5109	8	40	7	50
29	M03-3616-C	7	30	5	30
30	B030543	4	30		
31	D04*5546	8	40		
32	D04-5012	0	0		
33	GA991336-6E9	4	30		
34	GA991209-6E33	6	30		
35	GA991371-6E13	3	10	4	20
36	GA991227-6A33	2	1	3	10
37	W98007V1	0	0	8	70
38	W98008J1	4	50	3	20
39	W98008P1	4	50	4	40
40	G59160	0	0	2	5
41	G61505	0	0	3	20
42	G41732	6	20	3	10
LOCATION MEANS		4.6	22.8		
GROWTH STAGE / DATE				milk / July 11	

STRIPE RUST

		Mt. Vernon WA Chen				Walla Walla WA Chen	
		IT	%	IT	%	IT	%
1	AGS 2000	5	30	8	80	8	60
2	Pioneer Brand 26R61	2	5	2	5	0	0
3	Coker 9553	2	10	2	1	8	40
4	USG 3555	2	5	2	1	0	0
5	NC03-6228	8	80	8	100	8	60
6	NC03-8026	8	80	8	100	8	60
7	VA04W-259	8	80	8	100	0	0
8	LA99005UC-31-3-C	5	30	5	40	8	40
9	LA98214D-14-1-2-B	5	20	5	10	0	0
10	MO011126	2	10	2	1	0	0
11	NC04-15533	8	60	5	70	8	20
12	NC04-20814	8	80	8	100	8	20
13	LA01140D-70	3	20	2	30	0	0
14	LA01138D-52	5	30	2	5	8	40
15	AR96077-7-2	2	10	2	20	8	20
16	AR97124-4-3	8	80	8	90	0	0
17	P992231A1-2-1	3	10	2	1	0	0
18	P03112A1-7-14	8	40	8	90	8	40
19	P04287A1-10	8	40	5	30	8	40
20	VA05W-250	8	80	8	80	8	60
21	VA05W-258					8	80
22	VA05W-78	8	80	8	90	8	80
23	MD01W233-05-1	8	80	8	100	8	40
24	MD01W233-06-16	8	60	8	70	8	10
25	MD01W233-06-1	3	20	2	20	0	0
26	TN801	8	60	8	80	8	60
27	M04-4715	8	80	8	100	8	60
28	M04*5109	8	60	8	100	8	60
29	M03-3616-C	8	80	8	100	8	60
30	B030543	2	10	5	40	8	20
31	D04*5546	5	30	2	1	0	0
32	D04-5012	3	15	5	30	8	40
33	GA991336-6E9	8	20	2	10	8	20
34	GA991209-6E33	5	30	8	60	8	60
35	GA991371-6E13	5	30	5	30	8	40
36	GA991227-6A33	2	10	2	5	0	0
37	W98007V1	2,8	10,40	5	80	8	40
38	W98008J1	5	40	7	50	8	40
39	W98008P1	8	40	5	50	8	60
40	G59160	5	40	5	60	8	40
41	G61505	5	40	2	10	0	0
42	G41732	8	80	8	100	0	0
LOCATION MEANS							
GROWTH STAGE / DATE		stem elongation / April 23		heading / June 5		soft dough / July 1	

SEPTORIA

		Belle Mina AL	Bay AR		Evansville IN	
		Glass	Hancock		Ohm	
		tritici	tritici	nodorum	tritici	tritici
			1-9	% glume tissue	% leaf below flag	sporulation density
1	AGS 2000	2	6.5	35	60	M
2	Pioneer Brand 26R61	2	3.5	40	40	M
3	Coker 9553	3	6.0	40	60	M
4	USG 3555	2	4.5	45	60	M
5	NC03-6228	3	7.0	45	70	M
6	NC03-8026	2	5.5	40	60	M
7	VA04W-259	1	6.5	30	50	M
8	LA99005UC-31-3-C	2	8.0	40	60	M
9	LA98214D-14-1-2-B	2	4.0	45	50	S
10	MO011126	2	4.0	40	40	M
11	NC04-15533	2	5.0	40	50	M
12	NC04-20814	2	5.0	55	50	M
13	LA01140D-70	2	4.5	55	50	M
14	LA01138D-52	2	6.0	35	50	M
15	AR96077-7-2	2	4.5	35	50	M
16	AR97124-4-3	2	5.0	45	60	M
17	P992231A1-2-1	1	4.0	40	50	M
18	P03112A1-7-14	1	4.0	35	50	M
19	P04287A1-10	3	3.5	65	60	M
20	VA05W-250	1	4.0	35	60	S
21	VA05W-258	2	5.0	45	60	S
22	VA05W-78	3	7.0	40	50	M
23	MD01W233-05-1	2	6.0	35	60	M
24	MD01W233-06-16	2	4.0	25	50	M
25	MD01W233-06-1	1	3.5	30	40	M
26	TN801	2	3.0	40	50	M
27	M04-4715	1	5.5	65	40	M
28	M04*5109	2	6.0	50	50	M
29	M03-3616-C	2	4.0	50	40	M
30	B030543	2	6.0	40	50	M
31	D04*5546	2	4.5	60	40	M
32	D04-5012	2	4.5	45	60	M
33	GA991336-6E9	2	6.0	35	50	M
34	GA991209-6E33	2	6.5	25	60	M
35	GA991371-6E13	2	5.5	35	40	M
36	GA991227-6A33	2	7.0	30	50	S
37	W98007V1	2	7.0	35	60	S
38	W98008J1	2	6.5	40	50	S
39	W98008P1	3	8.0	50	50	M
40	G59160	2	4.5	30	40	M
41	G61505	2	4.0	30	20	M
42	G41732	2	4.0	40	40	M
LOCATION MEANS		2.0	5.2	40.8	50.7	
GROWTH STAGE / DATE						

SEPTORIA

		Ft Branch IN Moreno tritici	Logan Co. KY Van Sanford tritici	Wooster OH Sneller tritici 0-9	Oconto WI Cisar tritici
1	AGS 2000	5.5		1.5	2
2	Pioneer Brand 26R61	3.0	7.4	1.5	2
3	Coker 9553	8.0	7.4	2.0	3
4	USG 3555	3.5	8.0	1.5	2
5	NC03-6228	9.0		1.5	3
6	NC03-8026	4.5		1.0	2
7	VA04W-259	7.0	3.8	1.0	1
8	LA99005UC-31-3-C	4.5	7.8	3.0	5
9	LA98214D-14-1-2-B	5.5	7.4	2.5	4
10	MO011126	4.0	7.4	2.5	3
11	NC04-15533	7.0	6.4	2.0	3
12	NC04-20814	8.0		2.0	4
13	LA01140D-70	4.5	6.9	2.5	4
14	LA01138D-52	5.0		3.5	4
15	AR96077-7-2	3.5		2.5	3
16	AR97124-4-3	4.0	6.4	2.0	4
17	P992231A1-2-1	2.0		2.0	5
18	P03112A1-7-14	2.0		1.5	3
19	P04287A1-10	2.0	5.9	2.0	3
20	VA05W-250	5.0	7.4	3.0	5
21	VA05W-258	6.5		2.5	6
22	VA05W-78	5.0	6.8	2.0	3
23	MD01W233-05-1	7.0	8.0	3.5	5
24	MD01W233-06-16	4.0		1.0	1
25	MD01W233-06-1	2.5	5.4	1.5	3
26	TN801	2.0	6.0	1.5	3
27	M04-4715	5.5		1.0	5
28	M04*5109	6.5	9.0	2.0	5
29	M03-3616-C	3.0		1.5	7
30	B030543	5.5		2.5	3
31	D04*5546	2.5	6.8	1.5	3
32	D04-5012	4.5	6.8	2.0	4
33	GA991336-6E9	5.0	7.0	2.0	5
34	GA991209-6E33	4.5	7.8	3.0	3
35	GA991371-6E13	4.5		3.0	4
36	GA991227-6A33	6.5	7.9	2.5	3
37	W98007V1	9.0		2.5	6
38	W98008J1	8.5		2.0	5
39	W98008P1	8.0		3.0	5
40	G59160	4.0		3.5	6
41	G61505	6.0	8.0	2.0	5
42	G41732	2.5	4.8	3.0	2
LOCATION MEANS		5.0	6.9	2.1	3.7
GROWTH STAGE / DATE			10.1		

FUSARIUM HEAD BLIGHT (SCAB)

			Evansville IN Ohm		Ft Branch IN	Tipton IN	Oconto WI
					Moreno	Brown	Cisar
		incidence	severity	index			
		%	%			1-9	
1	AGS 2000	10	50	5	8.0	7.0	0
2	Pioneer Brand 26R61	25	69	17	6.0	7.0	7
3	Coker 9553	8	25	2	5.5	1.0	1
4	USG 3555	20	40	8	4.0	3.0	1
5	NC03-6228	35	50	18	7.0	1.0	3
6	NC03-8026	5	75	4	4.5	2.0	0
7	VA04W-259	15	50	8	4.5	3.0	1
8	LA99005UC-31-3-C	35	60	21	7.5	5.0	6
9	LA98214D-14-1-2-B	35	80	28	7.5	7.0	3
10	MO011126	8	50	4	2.5	2.5	1
11	NC04-15533	5	40	2	3.5	4.0	1
12	NC04-20814	4	30	1	4.0	3.0	0
13	LA01140D-70	40	80	32	8.0	6.0	7
14	LA01138D-52	5	20	1	3.5	7.5	0
15	AR96077-7-2	3	30	1	3.5	2.0	0
16	AR97124-4-3	4	40	2	4.0	1.0	1
17	P992231A1-2-1	2	20	0	2.5	1.0	2
18	P03112A1-7-14	1	20	0	2.0	1.0	0
19	P04287A1-10	3	30	1	2.0	1.0	1
20	VA05W-250	8	40	3	3.5	4.0	3
21	VA05W-258	35	50	18	4.5	1.0	0
22	VA05W-78	20	30	6	4.0	6.0	0
23	MD01W233-05-1	4	40	2	4.0	2.0	1
24	MD01W233-06-16	8	8	1	2.5	1.0	0
25	MD01W233-06-1	5	10	1	2.5	3.0	0
26	TN801	20	80	16	4.0	3.0	0
27	M04-4715	40	60	24	4.0	1.0	6
28	M04*5109	10	30	3	2.5	2.0	0
29	M03-3616-C	3	15	1	2.0	1.0	0
30	B030543	10	60	6	2.5	2.0	0
31	D04*5546	15	30	5	2.5	4.0	1
32	D04-5012	25	60	15	4.5	3.0	2
33	GA991336-6E9	15	60	9	6.5	4.0	0
34	GA991209-6E33	30	50	15	7.0	7.0	3
35	GA991371-6E13	10	40	4	6.5	7.0	2
36	GA991227-6A33	5	30	2	4.0	8.0	3
37	W98007V1	15	50	8	8.0	2.0	5
38	W98008J1	50	80	40	7.5	1.0	7
39	W98008P1	70	80	56	7.5	7.0	7
40	G59160	1	10	0	2.0	2.0	2
41	G61505	1	10	0	2.5	2.0	0
42	G41732	10	50	5	2.5	1.0	1
LOCATION MEANS		16	44	9	4.5	3.3	1.9
GROWTH STAGE / DATE						June 24	

POWDERY MILDEW

		Quincy FL	Plains GA	Tipton IN	Queenstown MD	Kinston NC	Laurel Springs NC
		Barnett/Blount	Johnson	Brown	Costa	Murphy	Marshall
		0-9	0-9	1-9	0-9		0-9
1	AGS 2000	2	2	1	1.0	2.0	5
2	Pioneer Brand 26R61	4	3	1	5.8	2.5	0
3	Coker 9553	4	0	1	0.0	1.5	2
4	USG 3555	1	0	1	0.0	1.0	0
5	NC03-6228	1	0	1	0.0	0.0	0
6	NC03-8026	3	0	1	2.5	2.0	3
7	VA04W-259	0	0	1	0.0	1.5	0
8	LA99005UC-31-3-C	1	2	1	1.3	1.5	5
9	LA98214D-14-1-2-B	1	1	1	0.0	1.5	0
10	MO011126	5	0	2	2.0	4.0	0
11	NC04-15533	0	0	1	0.0	0.5	0
12	NC04-20814	0	0	1	0.0	0.0	0
13	LA01140D-70	0	3	2	1.0	2.0	0
14	LA01138D-52	6	3	1	3.3	4.5	7
15	AR96077-7-2	0	0	1	1.5	1.5	0
16	AR97124-4-3	6	3	2	4.5	5.0	8
17	P992231A1-2-1	4	2	1	6.5	4.0	3
18	P03112A1-7-14	1	0	1	1.5	1.5	0
19	P04287A1-10	4	1	1	4.5	3.0	4
20	VA05W-250	0	0	1	3.0	2.0	2
21	VA05W-258	4	2	1	3.5	2.0	0
22	VA05W-78	0	0	1	0.0	0.5	0
23	MD01W233-05-1	0	0	1	3.5	1.5	5
24	MD01W233-06-16	0	0	1	0.0	0.5	0
25	MD01W233-06-1	0	0	1	0.0	0.0	0
26	TN801	3	0	1	4.0	3.5	4
27	M04-4715	1	TR	1	5.0	0.5	4
28	M04*5109	7	3	1	3.5	3.5	7
29	M03-3616-C	1	0	1	3.0	1.0	6
30	B030543	4	TR	1	4.0	4.0	8
31	D04*5546	8	2	1	6.5	6.0	8
32	D04-5012	2	1	1	1.5	3.0	6
33	GA991336-6E9	5	0	1	0.0	3.0	7
34	GA991209-6E33	3	3	1	1.0	2.5	8
35	GA991371-6E13	5	3	1	0.0	3.0	8
36	GA991227-6A33	3	4	1	4.8	2.5	3
37	W98007V1	1	0	1	0.0	2.0	0
38	W98008J1	4	3	1	2.5	3.5	8
39	W98008P1	1	0	1	1.0	4.0	7
40	G59160	2	0	1	0.3	0.0	0
41	G61505	1	0	1	3.0	1.5	3
42	G41732	6	0	1	3.0	4.0	5
LOCATION MEANS		2.5	1.0	1.1	2.1	2.2	3.2
GROWTH STAGE / DATE			April 18	May 22			

POWDERY MILDEW

		Blacksburg VA Griffey 0-9	Warsaw VA Griffey 0-9	Oconto WI Cisar
1	AGS 2000	7.0	1.5	1
2	Pioneer Brand 26R61	6.5	3.0	1
3	Coker 9553	3.5	1.0	2
4	USG 3555	5.5	0.5	1
5	NC03-6228	2.5	0.0	0
6	NC03-8026	4.0	0.5	0
7	VA04W-259	3.0	0.5	0
8	LA99005UC-31-3-C	6.0	0.0	0
9	LA98214D-14-1-2-B	3.0	0.5	0
10	MO011126	5.5	2.5	3
11	NC04-15533	2.5	0.5	0
12	NC04-20814	3.0	0.5	0
13	LA01140D-70	3.0	2.0	0
14	LA01138D-52	8.5	6.5	4
15	AR96077-7-2	2.0	1.5	2
16	AR97124-4-3	6.5	4.0	6
17	P992231A1-2-1	6.5	4.5	3
18	P03112A1-7-14	4.5	0.0	2
19	P04287A1-10	5.5	4.0	2
20	VA05W-250	3.0	3.5	0
21	VA05W-258	3.0	1.0	0
22	VA05W-78	0.0	1.0	0
23	MD01W233-05-1	4.5	4.0	0
24	MD01W233-06-16	3.5	0.0	0
25	MD01W233-06-1	0.0	0.0	0
26	TN801	7.0	4.0	3
27	M04-4715	4.5	2.0	2
28	M04*5109	6.5	2.0	6
29	M03-3616-C	3.5	1.5	3
30	B030543	5.0	4.0	7
31	D04*5546	8.0	5.5	6
32	D04-5012	6.0	0.0	3
33	GA991336-6E9	7.0	3.5	0
34	GA991209-6E33	6.0	3.0	0
35	GA991371-6E13	7.0	1.0	0
36	GA991227-6A33	8.0	3.5	0
37	W98007V1	4.0	0.5	0
38	W98008J1	7.0	3.0	0
39	W98008P1	5.0	4.0	0
40	G59160	3.0	1.0	0
41	G61505	4.0	1.0	0
42	G41732	3.0	1.0	1
LOCATION MEANS		4.7	2.0	1.4
GROWTH STAGE / DATE				

POWDERY MILDEW

		Blacksburg VA							
		Griffey				07 GH	Reaction		PM (0-4)
		seedling	Entry ID	Pedigree	Pm Gene	1/23/07	Type	07GH PM	11/26/07
1	AGS 2000	12-	Pm-Dif 1	Chancellor	sus	4	S	12	34
2	Pioneer Brand 26R61	;1-	Pm-Dif 2	CI 14114	1a	12+	MR	12+	0;
3	Coker 9553	34	Pm-Dif 3	PI 351489	1c	3	S	34	34
4	USG 3555	23	Pm-Dif 4	CI 14118	2	3	S	4	4
5	NC03-6228	12-	Pm-Dif 5	CI 14120	3a	34	S	23	34
6	NC03-8026	23	Pm-Dif 6	CI 14121	3b	0;1	R	1	0;
7	VA04W-259	3	Pm-Dif 7	CI 15886	3c	3	S	34	34
8	LA99005UC-31-3-C	12-	Pm-Dif 8	Ralle	3d	0;1-	R	0;1-	;1
9	LA98214D-14-1-2-B	1cn	Pm-Dif 9	W176	3e	4	S	12	34
10	MO011126	;1cn	Pm-Dif 10	C6815-PM3	3f	34	S	23	4
11	NC04-15533	1	Pm-Dif 11	Aristide	3g	34	S	3	3
12	NC04-20814	1	Pm-Dif 12	CI 14123	4a	4	S	23	34
13	LA01140D-70	12	Pm-Dif 13	Ronos	4b	34	S	12	34
14	LA01138D-52	34	Pm-Dif 14	CI 14125	5a	23C	I	23	3
15	AR96077-7-2	23	Pm-Dif 15	Kormoran	5b	34	S	34	34
16	AR97124-4-3	34	Pm-Dif 16	I5	5d	0;CN	R	01	;1c
17	P992231A1-2-1	3	Pm-Dif 17	CI 15888	6	4	S	01	4
18	P03112A1-7-14	34	Pm-Dif 18	Transec	7	4	S	4	4
19	P04287A1-10	4	Pm-Dif 19	Kavkaz	8	;12-	MR	23	12
20	VA05W-250	0;	Pm-Dif 20	N14	9	4	S	01-	4
21	VA05W-258	1	Pm-Dif 21	Wembly	12	0;	R	01-	0;
22	VA05W-78	0;	Pm-Dif 22	PM16	16	;1-	R		0;
23	MD01W233-05-1	0;	Pm-Dif 23	Amigo	17	0;	R	0;	;1
24	MD01W233-06-16	0;	Pm-Dif 24	GHSE PM2	20	;12-	MR	01	2cn
25	MD01W233-06-1	0;	Pm-Dif 25	DH2	21	0;	R	0C	0;
26	TN801	4	Pm-Dif 26	NC96BGTA	25	12	MR	01	0;
27	M04-4715	12-	Pm-Dif 27	NC97BGTD	34	23	IMS	12+	23
28	M04*5109	4							
29	M03-3616-C	0;							
30	B030543	3							
31	D04*5546	4							
32	D04-5012	12-							
33	GA991336-6E9	2							
34	GA991209-6E33	12							
35	GA991371-6E13	12							
36	GA991227-6A33	;1-cn							
37	W98007V1	12-							
38	W98008J1	12							
39	W98008P1	0;							
40	G59160	3							
41	G61505	2							
42	G41732	34							

VIRUSES

		Belle Mina AL	Wooster OH	Blacksburg VA
		Glass	Sneller	Griffey
		BYDV	WSSMV	BYDV
		%	0-9	0-9
1	AGS 2000	12	8.0	4.5
2	Pioneer Brand 26R61	25	0.0	3.5
3	Coker 9553	17	8.0	4.5
4	USG 3555	23	0.5	2.5
5	NC03-6228	15	2.5	2.0
6	NC03-8026	20	5.0	3.0
7	VA04W-259	12	1.0	3.0
8	LA99005UC-31-3-C	37	8.5	4.5
9	LA98214D-14-1-2-B	23	4.5	6.0
10	MO011126	40	0.5	2.0
11	NC04-15533	15	0.5	1.5
12	NC04-20814	18	0.5	1.0
13	LA01140D-70	27	3.0	2.5
14	LA01138D-52	23	7.0	5.0
15	AR96077-7-2	10	0.0	2.0
16	AR97124-4-3	23	2.0	4.0
17	P992231A1-2-1	12	1.0	3.5
18	P03112A1-7-14	10	0.0	2.5
19	P04287A1-10	8	1.5	3.0
20	VA05W-250	20	1.0	3.5
21	VA05W-258	22	2.0	2.0
22	VA05W-78	23	2.0	3.0
23	MD01W233-05-1	20	1.5	4.5
24	MD01W233-06-16	28	0.0	4.5
25	MD01W233-06-1	20	0.5	3.5
26	TN801	5	3.5	4.0
27	M04-4715	23	0.0	3.5
28	M04*5109	18	3.0	3.5
29	M03-3616-C	17	0.0	4.5
30	B030543	18	4.0	3.0
31	D04*5546	25	0.0	4.5
32	D04-5012	18	1.5	3.0
33	GA991336-6E9	27	7.0	6.0
34	GA991209-6E33	20	5.0	3.5
35	GA991371-6E13	15	7.5	5.5
36	GA991227-6A33	18	6.5	3.0
37	W98007V1	28	1.5	4.0
38	W98008J1	33	6.0	4.0
39	W98008P1	50	3.5	5.0
40	G59160	15	2.5	2.0
41	G61505	33	0.0	5.5
42	G41732	8	6.0	4.0
LOCATION MEANS		20.9	2.8	3.6

HESSIAN FLY

				W Lafayette IN			Winnsboro LA
				Cambron			Harrison
				0-9			0-9
		Bio B	Bio C	Bio D	Bio O	Bio L	
1	AGS 2000	9	9	9	9	9	0.5
2	Pioneer Brand 26R61	9	9	9	1	9	4.0
3	Coker 9553	9	9	9	9	9	4.5
4	USG 3555	9	9	9	9	9	5.5
5	NC03-6228	9	9	9	9	9	2.0
6	NC03-8026	9	9	9	9	9	1.5
7	VA04W-259	9	9	9	9	9	3.0
8	LA99005UC-31-3-C	9	9	9	9	9	1.5
9	LA98214D-14-1-2-B	9	9	9	9	9	7.0
10	MO011126	9	9	9	9	9	6.5
11	NC04-15533	9	9	9	9	9	0.0
12	NC04-20814	7	9	9	9	9	1.5
13	LA01140D-70	9	9	9	9	9	0.5
14	LA01138D-52	9	9	9	9	9	0.5
15	AR96077-7-2	9	9	9	9	9	1.0
16	AR97124-4-3	9	9	9	9	9	0.0
17	P992231A1-2-1	2	3	2	6	4	0.5
18	P03112A1-7-14	9	9	8	9	9	0.0
19	P04287A1-10	8	9	9	9	9	8.5
20	VA05W-250	9	3	6	9	9	4.0
21	VA05W-258	9	3	9	3	9	4.5
22	VA05W-78	9	9	9	9	9	6.0
23	MD01W233-05-1	9	3	9	3	9	5.5
24	MD01W233-06-16	9	9	9	9	9	7.0
25	MD01W233-06-1	9	9	9	9	9	4.0
26	TN801	9	9	9	9	9	5.5
27	M04-4715	9	9	9	9	9	4.0
28	M04*5109	9	9	9	9	9	4.0
29	M03-3616-C	7	1	1	3	9	3.5
30	B030543	9	9	9	9	9	7.5
31	D04*5546	9	9	9	3	9	3.0
32	D04-5012	9	9	9	9	9	4.5
33	GA991336-6E9	9	9	9	4	9	0.0
34	GA991209-6E33	9	9	9	9	9	8.5
35	GA991371-6E13	9	9	9	4	9	5.5
36	GA991227-6A33	9	9	9	9	9	5.0
37	W98007V1	9	3	4	9	9	5.5
38	W98008J1	8	2	2	9	9	6.5
39	W98008P1	9	4	8	4	9	0.0
40	G59160	9	9	9	9	9	5.5
41	G61505	9	9	9	9	9	6.0
42	G41732	9	9	9	7	9	1.0
LOCATION MEANS							3.7
GROWTH STAGE / DATE							May 2

ACID SOIL TOLERANCE

		Enid OK Carver 0-5
1	AGS 2000	0
2	Pioneer Brand 26R61	2
3	Coker 9553	1
4	USG 3555	4
5	NC03-6228	1
6	NC03-8026	3
7	VA04W-259	1
8	LA99005UC-31-3-C	1
9	LA98214D-14-1-2-B	3
10	MO011126	3
11	NC04-15533	4
12	NC04-20814	4
13	LA01140D-70	0
14	LA01138D-52	0
15	AR96077-7-2	1
16	AR97124-4-3	0
17	P992231A1-2-1	3
18	P03112A1-7-14	4
19	P04287A1-10	2
20	VA05W-250	1
21	VA05W-258	0
22	VA05W-78	2
23	MD01W233-05-1	1
24	MD01W233-06-16	2
25	MD01W233-06-1	0
26	TN801	1
27	M04-4715	3
28	M04*5109	3
29	M03-3616-C	4
30	B030543	1
31	D04*5546	1
32	D04-5012	0
33	GA991336-6E9	3
34	GA991209-6E33	3
35	GA991371-6E13	1
36	GA991227-6A33	1
37	W98007V1	1
38	W98008J1	0
39	W98008P1	3
40	G59160	0
41	G61505	3
42	G41732	1
LOCATION MEANS		1.7
GROWTH STAGE / DATE		Nov 2

MARKER DATA

Raleigh, NC, Brown-Guedira

		Rht-B1 (Rht1) dwarfing	*Rht-D1 (Rht2) dwarfing*	Ppd Insensitive?	*Fhb1*	3BS QTL from Ernie	Fhb3 from Wuhan1
1	AGS 2000	no	***yes***	no	no	no	no
2	Pioneer Brand 26R61	no	***yes***	***yes***	no	no	no
3	Coker 9553	nd	nd	***yes***	no	no	no
4	USG 3555	no	***yes***	***yes***	no	***Hetero***	no
5	NC03-6228	no	***yes***	***yes***	no	no	no
6	NC03-8026	no	***yes***	***yes***	no	no	no
7	VA04W-259	no	***yes***	***yes***	no	no	no
8	LA99005UC-31-3-C	no	nd	***yes***	no	no	no
9	LA98214D-14-1-2-B	no	***yes***	no	no	no	no
10	MO011126	***hetero***	***hetero***	***yes***	no	no	no
11	NC04-15533	***yes***	no	***yes***	no	no	no
12	NC04-20814	***yes***	no	***yes***	no	no	no
13	LA01140D-70	no	***yes***	***yes***	no	no	no
14	LA01138D-52	no	***yes***	***yes***	no	no	no
15	AR96077-7-2	no	***yes***	***yes***	no	no	no
16	AR97124-4-3	***yes***	***hetero***	***Hetero***	no	no	no
17	P992231A1-2-1	***yes***	no	no	no		no
18	P03112A1-7-14	***yes***	no	no	no	no	no
19	P04287A1-10	***yes***	no	no	no	no	no
20	VA05W-250	no	***yes***	***yes***	no	no	no
21	VA05W-258	no	***yes***	***yes***	no	no	no
22	VA05W-78	no	***yes***	no	no	no	no
23	MD01W233-05-1	no	***yes***	no	no	no	no
24	MD01W233-06-16	no	***yes***	no	no	no	no
25	MD01W233-06-1	no	***yes***	no	no	no	no
26	TN801	no	***yes***	***yes***	no	no	no
27	M04-4715	***hetero***	***hetero***	***yes***	no	***Hetero***	no
28	M04*5109	no	***yes***	***yes***	no	no	no
29	M03-3616-C	***yes***	no	***yes***	no	no	no
30	B030543	no	***yes***	***yes***	no	no	no
31	D04*5546	no	***hetero***	no	no	no	no
32	D04-5012	no	***yes***	no	no	no	no
33	GA991336-6E9	no	***yes***	no	no	no	no
34	GA991209-6E33	no	***hetero?***	no	no	no	no
35	GA991371-6E13	no	***yes***	no	no	no	no
36	GA991227-6A33	no	***yes***	no	no	no	no
37	W98007V1	no	***yes***	***yes***	no	no	no
38	W98008J1	no	***yes***	***yes***	no	no	no
39	W98008P1	no	***yes***	***yes***	no	no	no
40	G59160	no	***yes***	no	no	no	no
41	G61505	***yes***	no	no	no	no	no
42	G41732	no	***hetero***	no	no	no	no

MARKER DATA

Raleigh, NC, Brown-Guedira

		5AS(Ning7840) FHB QTL	*Sr24/Lr24*	1RS	*Sr36*	*H13*	*H9*	*Yr17/Lr37/Sr38*
1	AGS 2000	no	no		no	no	no	no
2	Pioneer Brand 26R61	no	no	***T1RS:1BL***	no	no	no	no
3	Coker 9553	no	no		no	no	no	no
4	USG 3555	no	no	***T1RS:1BL***	***yes***	no	no	no
5	NC03-6228	no	no		***yes***	no	no	no
6	NC03-8026	no	no	***T1RS:1BL***	***yes***	no	no	no
7	VA04W-259	no	no		***yes***	no	no	no
8	LA99005UC-31-3-C	no	no		no	no	no	no
9	LA98214D-14-1-2-B	no	no		no	no	no	***yes***
10	MO011126	no	no		no	no	no	no
11	NC04-15533	no	no		***yes***	no	no	no
12	NC04-20814	no	no		***yes***	no	no	no
13	LA01140D-70	no	no		no	no	no	***yes***
14	LA01138D-52	no	no	***T1RS:1BL***	no	no	no	***yes***
15	AR96077-7-2	no	no		***yes***	no	no	no
16	AR97124-4-3	no	no		no	no	no	no
17	P992231A1-2-1	no	no		no	no	no	***yes***
18	P03112A1-7-14	no	no	***T1RS:1BL***	***yes***	no	no	***yes***
19	P04287A1-10	no	no	***T1RS:1BL***	***yes***	no	no	no
20	VA05W-250	no	no		no	no	no	no
21	VA05W-258	no	no		no	no	no	no
22	VA05W-78	no	***yes***	***T1RS:1AL***	no	no	no	no
23	MD01W233-05-1	no	***yes***		no	no	no	no
24	MD01W233-06-16	no	***yes***	***T1RS:1AL***	no	no	no	no
25	MD01W233-06-1	no	no	***T1RS:1AL***	no	no	no	no
26	TN801	no	no		no	no	no	no
27	M04-4715	no	no		no	no	no	no
28	M04*5109	no	no		no	no	no	no
29	M03-3616-C	no	no	***T1RS:1BL***	no	no	no	no
30	B030543	no	no	***T1RS:1BL***	no	no	no	no
31	D04*5546	no	no	***T1RS:1BL***	no	no	no	no
32	D04-5012	no	no		no	no	no	no
33	GA991336-6E9	no	no		no	no	no	***yes***
34	GA991209-6E33	no	no	***T1RS:1BL***	no	no	no	no
35	GA991371-6E13	no	no		no	no	no	***yes***
36	GA991227-6A33	no	no	***T1RS:1BL***	no	no	no	no
37	W98007V1	no	no		no	no	no	no
38	W98008J1	no	no		no	no	no	no
39	W98008P1	no	no		no	no	no	no
40	G59160	no	no		no	no	no	no
41	G61505	no	no		***yes***	no	no	no
42	G41732	no	no		***yes***	no	no	no

MARKER DATA

Raleigh, NC, Brown-Guedira

		Bvd2* or *Bvd3	***Lr34/Yr18/Pm38***	***Lr46/Yr29***	**Bx7oe strong gluten**	***Glu-A1***	***Glu-D1***
1	AGS 2000	no	no	no	no	Ax2*	5+10
2	Pioneer Brand 26R61	no	no	no	***yes***	Ax2*	5+10
3	Coker 9553	no	no	no	no		
4	USG 3555	no	no	no	no	Ax2*	2+12
5	NC03-6228	no	no	no	no	Ax2*	2+12
6	NC03-8026	no	no	no	no	Hetero	2+12
7	VA04W-259	no	no	no	no	Ax2*	2+12
8	LA99005UC-31-3-C	no	no	no	no	Ax2*	2+12
9	LA98214D-14-1-2-B	no	no	no	***yes***	Ax2*	2+12
10	MO011126	no	no	no	***Hetero***	Hetero	Hetero
11	NC04-15533	no	no	no	no	Ax1 or null	2+12
12	NC04-20814	no	no	no	no	Ax1 or null	2+12
13	LA01140D-70	no	no	no	***yes***	Ax2*	5+10
14	LA01138D-52	no	no	no	no	Ax2*	Hetero
15	AR96077-7-2	no	no	no	no	Ax2*	5+10
16	AR97124-4-3	no	no	no	no	Ax1 or null	2+12
17	P992231A1-2-1	no	no	no	no	Ax1 or null	2+12
18	P03112A1-7-14	***yes***	no	no	no	Ax2*	Hetero
19	P04287A1-10	***yes***	no	no	***Hetero***	Ax1 or null	5+10
20	VA05W-250	no	no	no	no	Ax2*	5+10
21	VA05W-258	no	no	no	no	Ax2*	2+12
22	VA05W-78	no	no	no	no	Ax2*	5+10
23	MD01W233-05-1	no	no	no	no	Ax2*	2+12
24	MD01W233-06-16	no	no	no	no	Ax2*	2+12
25	MD01W233-06-1	no	no	no	no	Ax1 or null	2+12
26	TN801	no	no	no	no	Ax2*	2+12
27	M04-4715	no	no	no	***Hetero***	Ax2*	2+12
28	M04*5109	no	no	no	no	Ax2*	2+12
29	M03-3616-C	no	no	no	***Hetero***	Ax1 or null	2+12
30	B030543	no	no	no	no	Ax1 or null	2+12
31	D04*5546	no	no	no	***yes***	Ax2*	5+10
32	D04-5012	no	no	no	no	Ax2*	2+12
33	GA991336-6E9	no	no	no	no	Ax1 or null	5+10
34	GA991209-6E33	no	no	no	no	Ax2*	5+10
35	GA991371-6E13	no	no	no	no	Ax1 or null	5+10
36	GA991227-6A33	no	no	no	no	Ax1 or null	2+12
37	W98007V1	no	no	no	no	Ax2*	2+12
38	W98008J1	no	***Hetero***	no	no	Ax2*	2+12
39	W98008P1	no	no	no	no	Hetero	Hetero
40	G59160	no	no	no	no	Ax1 or null	2+12
41	G61505	no	no	no	no	Ax1 or null	5+10
42	G41732	no	no	no	no	Ax2*	5+10

EASTERN SEPTORIA NURSERY

Raleigh, NC, Cowger		1 rep	2 reps	2 reps	1 rep			2 reps	1 rep	2 reps		1 rep	1 rep	1 rep		
		PL GA	KN NC	SAL NC	PR KY	**all**	**all**	KN NC	EV IN	BL VA		PR KY	EV IN	LX KY	**all**	**all**
		*	*	*		*** locs**	**locs**						*	*	*** locs**	**locs**
	date -->	423	430	523	529			506	612	625		529	522	603		
			Stag nod blotch - leaves					**Stag nod bl - glumes**				**Sept trit bl - leaves**				
		plt														
		(0-9)	(0-9)	(0-9)	(0-9)*	**X**	**X**	(0-9)	(0-9)	(0-9)	**X**	(0-9)*	(0-9)	(0-9)	**X**	**X**
1	AGS 2000	3	6.0	5.0	3	**4.7**	**4.2**	3.5	3	5	**3.8**		6	5	**5.5**	**5.5**
2	Pioneer Brand 26R61	2	4.5	3.5		**3.3**	**3.3**	3.0	5	5.5	**4.5**	2.8	5	4	**4.5**	**3.9**
3	Coker 9553	2	4.5	3.0		**3.2**	**3.2**	4.5	4	6	**4.8**	5.5	6	3	**4.5**	**4.8**
4	USG 3555	1	3.5	3.5		**2.7**	**2.7**	4.5	4	4	**4.2**	2.4	6	5	**5.5**	**4.5**
5	NC03-6228		2.0	3.0		**2.5**	**2.5**	1.0	5	5.5	**3.8**	3.7	7	4	**5.5**	**4.9**
6	NC03-8026	1	2.0	2.5		**1.8**	**1.8**	3.5	5	4.5	**4.3**	2.8	6	5	**5.5**	**4.6**
7	VA04W-259	0.5	1.0	3.0		**1.5**	**1.5**	0.5	3	5	**2.8**	3.3	6	4	**5.0**	**4.4**
8	LA99005UC-31-3-C	0.5	5.5	5.5		**3.8**	**3.8**	6.0	4	5.5	**5.2**	2.4	6	3	**4.5**	**3.8**
9	LA98214D-14-1-2-B	1	4.0	6.0		**3.7**	**3.7**	5.0	4	6.5	**5.2**	2.8	6	3	**4.5**	**3.9**
10	MO011126	2	4.0	4.0	3	**3.3**	**3.2**	1.5	4	7.5	**4.3**	2.8	5	5	**5.0**	**4.3**
11	NC04-15533		2.0	3.0		**2.5**	**2.5**	1.0	4	2.5	**2.5**	3.7	6	5	**5.5**	**4.9**
12	NC04-20814	1	2.0			**1.5**	**1.5**	0.5	4	4	**2.8**	4.6	6	3	**4.5**	**4.5**
13	LA01140D-70	2	4.0	4.0		**3.3**	**3.3**	3.5	4	5.5	**4.3**	1.9	6	3	**4.5**	**3.6**
14	LA01138D-52	0.5	4.5	5.0		**3.3**	**3.3**	5.5	2	8.5	**5.3**	2.8	6	3	**4.5**	**3.9**
15	AR96077-7-2	0.5	2.5	4.0		**2.3**	**2.3**	3.5	3	6	**4.2**	3.3	7	4	**5.5**	**4.8**
16	AR97124-4-3	0.5	3.0	3.0		**2.2**	**2.2**	1.0	4	5	**3.3**	2.4	6	4	**5.0**	**4.1**
17	P992231A1-2-1	0	1.5	2.5		**1.3**	**1.3**	1.0	4	5.5	**3.5**	4.6	4	3	**3.5**	**3.9**
18	P03112A1-7-14	0.5	1.5	2.0		**1.3**	**1.3**	0.5	3	7	**3.5**	1.9	5	2	**3.5**	**3.0**
19	P04287A1-10	3	2.5	2.5		**2.7**	**2.7**	3.0	5	7	**5.0**	2.4	4	3	**3.5**	**3.1**
20	VA05W-250	1	2.0	2.5		**1.8**	**1.8**	0.5	5	5.5	**3.7**	6.4	5	5	**5.0**	**5.5**
21	VA05W-258		1.5	3.0		**2.3**	**2.3**	1.0	6	6.5	**4.5**	5.5	6	4	**5.0**	**5.2**
22	VA05W-78		5.0	3.5		**4.3**	**4.3**	2.5	4	4	**3.5**	4.6	6	3	**4.5**	**4.5**
23	MD01W233-05-1	1	3.5	3.5		**2.7**	**2.7**	1.0	4	7.5	**4.2**	6.4	7	4	**5.5**	**5.8**
24	MD01W233-06-16		2.0	3.5		**2.8**	**2.8**	0.5	4	4.5	**3.0**	2.4	5	5	**5.0**	**4.1**
25	MD01W233-06-1	1	1.0	2.5		**1.5**	**1.5**	0.5	3	7.5	**3.7**	2.8	4	5	**4.5**	**3.9**
26	TN801	0.5	1.5	2.0		**1.3**	**1.3**	1.0	4	4.5	**3.2**	1.9	5	5	**5.0**	**4.0**
27	M04-4715	0.5	1.5	2.0		**1.3**	**1.3**	1.5	4	3.5	**3.0**	3.3	6	4	**5.0**	**4.4**
28	M04*5109		3.0	4.5		**3.8**	**3.8**	3.5	4	7	**4.8**	3.7	6	5	**5.5**	**4.9**
29	M03-3616-C	2	2.5	4.0		**2.8**	**2.8**	1.0	4	7	**4.0**	4.2	4	3	**3.5**	**3.7**
30	B030543	0.5	1.0	2.0		**1.2**	**1.2**	2.0	4	6.5	**4.2**	2.8	6	4	**5.0**	**4.3**
31	D04*5546	2	3.5	4.5		**3.3**	**3.3**	7.0	4	7	**6.0**	1.9	5	3	**4.0**	**3.3**
32	D04-5012	2	4.0	3.0		**3.0**	**3.0**	2.5	4	3.5	**3.3**	1.9	5	4	**4.5**	**3.6**
33	GA991336-6E9	3	5.0	5.0	3	**4.3**	**4.0**	5.0	4	4.5	**4.5**	2.8	6	4	**5.0**	**4.3**
34	GA991209-6E33	2	5.5	5.0		**4.2**	**4.2**	5.0	3	5.5	**4.5**	2.8	6	2	**4.0**	**3.6**
35	GA991371-6E13	0.5	5.5	5.5		**3.8**	**3.8**	4.5	2	3.5	**3.3**	3.7	5	4	**4.5**	**4.2**
36	GA991227-6A33	2	6.5	7.0		**5.2**	**5.2**	4.5	5	7	**5.5**	3.3	6	3	**4.5**	**4.1**
37	W98007V1	3	3.0			**3.0**	**3.0**	2.0	4	4.5	**3.5**	8.2	7	4	**5.5**	**6.4**
38	W98008J1	2	2.5	4.0		**2.8**	**2.8**	2.5	4	4.5	**3.7**	6.4	6	5	**5.5**	**5.8**
39	W98008P1	6	7.0	5.0		**6.0**	**6.0**	6.0	5	8	**6.3**	6.4	6	4	**5.0**	**5.5**
40	G59160	0.5	2.0	2.5		**1.7**	**1.7**	1.0	4	5	**3.3**	2.8	4	3	**3.5**	**3.3**
41	G61505	0.5	1.5	2.5		**1.5**	**1.5**	0.0	3	6.5	**3.2**	2.8	6	3	**4.5**	**3.9**
42	G41732	0.5	2.5	2.0		**1.7**	**1.7**	1.0	3	4.5	**2.8**	2.4	4	4	**4.0**	**3.5**

EASTERN SEPTORIA NURSERY

Raleigh, NC, Cowger		2 reps KN NC	2 reps SAL NC		2 reps KN NC	1 rep LX KY	1 rep GR GA	1 rep PL GA
	date -->	430	523		506	603	417	429
		Powdery Mildew			**Leaf rust**		**Stripe rust**	**WSB MV**
		(0-9)	(0-9)	**X**	(0-9)	(0-3)	(0-9)	(+/-)
1	AGS 2000	0.0	2.0	**1.0**	1.0	0	6	-
2	Pioneer Brand 26R61	0.5	4.0	**2.3**	0.5	3	2	-
3	Coker 9553	0.0	0.0	**0.0**	3.0	3	0	-
4	USG 3555	0.0	2.5	**1.3**	5.0	3	0	-
5	NC03-6228	0.0	0.0	**0.0**	1.0	3	8	
6	NC03-8026	1.5	2.0	**1.8**	2.0	-	7	-
7	VA04W-259	0.5	1.0	**0.8**	1.0	3	4	-
8	LA99005UC-31-3-C	1.5	2.5	**2.0**	0.0	1	6	-
9	LA98214D-14-1-2-B	0.0	1.0	**0.5**	0.0	3	4	-
10	MO011126	4.0	3.5	**3.8**	3.0	3	1	-
11	NC04-15533	0.5	0.0	**0.3**	0.0	2	5	
12	NC04-20814	0.0		**0.0**	0.5	3	5	-
13	LA01140D-70	0.0	0.0	**0.0**	1.0	3	4	-
14	LA01138D-52	5.5	4.0	**4.8**	0.0	2	6	-
15	AR96077-7-2	1.0	1.0	**1.0**	0.5	3	4	-
16	AR97124-4-3	4.5	5.0	**4.8**	0.0	1	2	-
17	P992231A1-2-1	5.5	3.5	**4.5**	0.5	3	3	-
18	P03112A1-7-14	0.5	0.0	**0.3**	3.0	3	4	-
19	P04287A1-10	3.5	2.5	**3.0**	0.0	3	3	-
20	VA05W-250	1.5	0.0	**0.8**	0.0	1	6	-
21	VA05W-258	0.5	1.0	**0.8**	1.5	3	9	
22	VA05W-78	1.5	0.0	**0.8**	2.0	1	9	
23	MD01W233-05-1	2.0	0.0	**1.0**	2.5	2	6	-
24	MD01W233-06-16	0.0	0.0	**0.0**	1.0	1	9	
25	MD01W233-06-1	0.0	0.0	**0.0**	0.5	3	1	-
26	TN801	4.0	4.0	**4.0**	0.0	1	6	+
27	M04-4715	0.5	2.0	**1.3**	1.0	3	8	-
28	M04*5109	3.0	0.0	**1.5**	4.5	3	8	
29	M03-3616-C	0.5	4.0	**2.3**	1.0	3	5	-
30	B030543	4.0	2.0	**3.0**	3.0	3	3	+
31	D04*5546	4.5	5.0	**4.8**	0.0	0	3	-
32	D04-5012	1.0	1.5	**1.3**	0.5	1	3	-
33	GA991336-6E9	2.5	2.0	**2.3**	0.0	1	3	-
34	GA991209-6E33	1.0	4.0	**2.5**	2.0	3	4	-
35	GA991371-6E13	1.5	2.0	**1.8**	0.0	3	3	-
36	GA991227-6A33	1.0	1.5	**1.3**	1.5	3	3	-
37	W98007V1	0.5		**0.5**	0.0	-	4	-
38	W98008J1	2.0	1.5	**1.8**	4.0	-	4	-
39	W98008P1	4.0	0.0	**2.0**	5.5	-	5	-
40	G59160	0.0	0.0	**0.0**	1.0	3	3	-
41	G61505	0.0	1.0	**0.5**	2.5	3	3	-
42	G41732	2.5	3.0	**2.8**	4.0	3	5	-

2008 Crop
Advance Milling and Baking Evaluation Nursery 2008A07

Uniform Southern Nursery – Samples provided by Steve Harrison
Entries # 820781 to # 820821

A total of 42 samples were grown at collection of interior locations; the normal division of coastal locations was not included. The standard data is compared to the "historical average" for the cultivar, and quality scores for all entries are adjusted to this average. The samples in this nursery were compared to entry AGS 2000. Of the 830 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 AGS 2000 standard with the "historical data" from the Advanced Milling databases.

SAMPLE NO.		ENTRY	MILLING QUALITY SCORE	BAKING QUALITY SCORE	SOFT. EQUIV. SCORE	TEST WT. LB/BU	ADJ. YIELD %	SOFT. EQUIV. %	FLOUR PROT. %	LACTIC ACID SRC	SUCROSE SRC %
		Nursery Average	69.1	57.1	57.4	61.24	69.78	56.96	9.09	111.07	97.54
		AGS 2000	85.91	69.87	62.91	62.17	73.14	58.88	8.85	102.68	94.83
Database	Average	AGS 2000	79.8	57.5	63.0	63.8	72.0	56.2	9.2	105.8	93.9
Database	St. Dev	AGS 2000	6.7	16.4	10.0	2.2	1.3	3.0	0.8	4.4	4.8

In this trial AGS 2000's quality was within the expectations of the cultivar based on comparison to Advanced quality evaluations since 2006. Pioneer 26R61, Coker 9553, and USG 3555 all have been evaluated before but have a smaller set of observations than AGS 2000 and therefore we have not presented comparisons to the means in the historical dataset. Generally the cultivars are consistent with their previous performance. Comparisons to previous cookie bakes are not presented due to changes in evaluations noted below. Very limited weathering and Fusarium affected kernels were present in the sample. No obvious pre-harvest sprouting was observed in the set.

Notes for 2008 Evaluations: The AACC has recommended modifications to the sugar snap cookie method. The SWQL adopted the new method for the 2008 crop year. The results of cookie data should be more accurate and reproducible. The diameters of the cookies will be generally larger than with the old method. The rankings of the cultivars should be generally similar to the old method. However the increase in diameter will be relatively smaller in better quality cultivars than in poorer quality or for very strong gluten lines.

Evaluation of Breeding Lines

In long-flow milling evaluations for the US Wheat Associates Overseas Varietal Analysis, Coker 9553 has had acceptable milling but has been at the lower end of acceptability for milling quality. In this trial it had a flour yield of 68.3%. Any line with significantly lower flour yield is likely to be unacceptable for milling quality if released as a cultivar. These lines include VA05W-250, MD01W233-06-16, M04-4715, and W98008P1. In this set, lines had a wide range of softness equivalent and selection for the trait would result in improved quality wheat. Only two breeding lines, P04287A1-10 and G41732, appeared not to fit the normal range for soft wheats and likely are unacceptable for break flour yield. Based on milling yield and softness equivalent (greater values preferred) and sucrose SRC (lower values preferred), the best quality wheat lines in this trial were LA01140D-70, GA991209-6E33, GA991371-6E13, and GA991227-6A33. They represent improvements to the average quality of soft wheats produced in the eastern US and may have value as crossing parents or cultivars if their agronomic and disease resistance characteristics are desirable.

None of the check cultivars are generally considered strong gluten cultivars. In this data set some of the samples appeared weathered and some did not. Lactic acid, a measure of gluten strength, is normally elevated with weathering and can give a false reading on the genetic potential of gluten strength. In a set where differential weathering has occurred, lactic acid scores should be evaluated and compared against other information about the cultivar before basing selection decisions on the lactic acid values. In this set the breeding lines with good milling quality (70% or greater) the strongest gluten lines were: NC04-15533, NC04-20814, AR96077-7-2, M04*5109, D04-5012, and G61505. These lines have good softness equivalents and should have acceptable quality for most products. However, they may have additional value for cracker production.

Please contact me if you have questions concerning these evaluations.

Best regards,
Edward Souza

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

LAB NO.		Composite of Interior Locations: Belle Mina, AL; Stuttgart, AR; Griffin, GA; Quantico, MD; Cleveland, MS	MILLING QUALITY SCORE		BAKING QUALITY SCORE		SOFT. EQUIV. SCORE		MICRO T.W. LB/BU		FLOUR YIELD %	
	Standard (#820781, AGS 2000)		85.9	A	69.9	C	62.9	C	62.2		73.1	
820781	1	AGS 2000	85.9	A	69.9	C	62.9	C	62.2		73.1	
820782	2	Pioneer Brand 26R61	72.4	B	46.5	E	50.2	D	62.7		70.4	Q
820783	3	Coker 9553	63.1	C	48.0	E	62.7	C	62.6		68.6	Q
820784	4	USG 3555	64.0	C	44.1	E	50.5	D	60.6	*	68.8	Q
820785	5	NC03-6228	65.5	C	34.8	F	48.6	E	63.1		69.1	Q
820786	6	NC03-8026	73.3	B	65.5	C	53.1	D	61.7		70.6	Q
820787	7	VA04W-259	71.2	B	58.1	D	51.2	D	61.3		70.2	Q
820788	8	LA99005UC-31-3-C	77.9	B	75.4	B	67.3	C	60.5	*	71.5	Q
820789	9	LA98214D-14-1-2-B	71.5	B	68.2	C	55.3	D	61.5		70.3	Q
820790	10	MO011126	87.0	A	71.3	B	58.1	D	62.1		73.3	
820791	11	NC04-15533	68.9	C	54.1	D	57.7	D	60.0	*	69.8	Q
820792	12	NC04-20814	67.8	C	47.4	E	57.9	D	59.8	*	69.5	Q
820793	13	LA01140D-70	78.0	B	59.6	D	62.5	C	62.0		71.6	*
820794	14	LA01138D-52	77.7	B	74.4	B	64.1	C	61.4		71.5	Q
820795	15	AR96077-7-2	65.0	C	75.7	B	60.9	C	61.0		69.0	Q
820796	16	AR97124-4-3	66.9	C	72.6	B	64.1	C	61.1		69.3	Q
820797	17	P992231A1-2-1	66.8	C	63.7	C	50.3	D	61.6		69.3	Q
820798	18	P03112A1-7-14	69.7	C	58.7	D	51.5	D	60.3	*	69.9	Q
820799	19	P04287A1-10	75.8	B	37.9	F	40.3	E	61.0		71.1	Q
820800	20	VA05W-250	55.2	D	29.7	F	57.5	D	60.8	*	67.0	Q
	21	VA05W-258	sample missing									
820801	22	VA05W-78	69.9	C	49.5	E	59.1	D	59.5	Q	69.9	Q
820802	23	MD01W233-05-1	61.4	C	46.3	E	71.7	B	60.4	*	68.2	Q
820803	24	MD01W233-06-16	51.3	D	28.5	F	46.7	E	62.3		66.2	Q
820804	25	MD01W233-06-1	63.7	C	37.4	F	55.0	D	62.9		68.7	Q
820805	26	TN801	66.5	C	62.4	C	65.7	C	60.0	*	69.3	Q
820806	27	M04-4715	53.9	D	51.1	D	44.9	E	59.2	Q	66.8	Q
820807	28	M04*5109	75.3	B	52.7	D	63.6	C	61.5		71.0	Q
820808	29	M03-3616-C	61.8	C	86.2	A	58.4	D	60.5	*	68.3	Q
820809	30	B030543	73.9	B	80.5	A	54.0	D	62.6		70.7	Q
820810	31	D04*5546	72.0	B	56.9	D	54.2	D	62.7		70.4	Q
820811	32	D04-5012	65.4	C	50.6	D	75.6	B	60.8	*	69.1	Q
820812	33	GA991336-6E9	83.3	A	52.0	D	51.4	D	62.9		72.6	
820813	34	GA991209-6E33	79.8	B	62.2	C	56.9	D	62.7		71.9	*
820814	35	GA991371-6E13	79.2	B	82.2	A	59.1	D	61.5		71.8	*
820815	36	GA991227-6A33	77.3	B	63.9	C	60.2	C	60.9	*	71.4	Q
820816	37	W98007V1	66.8	C	51.2	D	69.6	C	61.1		69.3	Q
820817	38	W98008J1	60.2	C	43.2	E	57.9	D	60.0	*	68.0	Q
820818	39	W98008P1	52.1	D	53.0	D	64.4	C	58.4	Q	66.4	Q
820819	40	G59160	60.0	C	49.5	E	64.4	C	60.2	*	68.0	Q
820820	41	G61505	70.1	B	79.3	B	60.4	C	60.9	*	70.0	Q
820821	42	G41732	64.6	C	44.8	E	34.5	F	62.5		68.9	Q
		Average	69.1		57.1		57.4		61.2		69.8	

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

	Composite of Interior Locations: Belle Mina, AL; Stuttgart, AR; Griffin, GA; Quantico, MD; Cleveland, MS	SOFT. EQUIV. %		FLOUR PROT. %		LACTIC ACID RET'N	SUCROSE SRC %	COOKIE DIAM. CM.		TOP GR.
Standard (#820781, AGS 2000)		58.9		8.85		102.7	94.8	18.76		6
1	AGS 2000	58.9		8.85		102.7	94.8	18.76		6
2	Pioneer Brand 26R61	54.4	*	9.42		105.1	97.1	18.06	Q	4
3	Coker 9553	58.8		9.16		114.8	107.6	18.10	Q	4
4	USG 3555	54.5	*	9.04		111.0	104.5	17.99	Q	4
5	NC03-6228	53.9	*	9.17		124.3	108.1	17.71	Q	4
6	NC03-8026	55.5	*	9.18		104.9	102.3	18.63		4
7	VA04W-259	54.8	*	9.44		113.2	97.7	18.41	*	5
8	LA99005UC-31-3-C	60.4		8.87		107.8	99.6	18.93		5
9	LA98214D-14-1-2-B	56.2		9.10		115.4	95.2	18.71		5
10	MO011126	57.2		9.33		116.7	97.8	18.80		5
11	NC04-15533	57.1		9.02		120.2	97.8	18.29	*	4
12	NC04-20814	57.1		8.81		119.7	98.4	18.09	Q	4
13	LA01140D-70	58.7		9.54		115.2	92.1	18.45	*	5
14	LA01138D-52	59.3		9.23		105.7	95.9	18.89		5
15	AR96077-7-2	58.2		8.68		120.8	94.1	18.93		5
16	AR97124-4-3	59.3		8.67		109.9	92.2	18.84		4
17	P992231A1-2-1	54.5	*	10.03	*	109.0	98.0	18.57		3
18	P03112A1-7-14	54.9	*	9.13		85.9	91.2	18.43	*	4
19	P04287A1-10	51.0	Q	8.98		94.8	94.7	17.80	Q	4
20	VA05W-250	57.0		9.40		120.4	102.7	17.56	Q	3
21	VA05W-258									
22	VA05W-78	57.5		9.68	*	103.4	98.5	18.15	Q	3
23	MD01W233-05-1	62.0		9.69	*	101.9	96.8	18.05	Q	3
24	MD01W233-06-16	53.2	*	9.70	*	102.9	102.8	17.52	Q	4
25	MD01W233-06-1	56.1		10.30	Q	105.5	97.9	17.79	Q	3
26	TN801	59.9		8.61		117.6	101.5	18.54		4
27	M04-4715	52.6	*	9.29		104.7	94.2	18.20	Q	4
28	M04*5109	59.1		8.66		121.5	94.7	18.24	Q	4
29	M03-3616-C	57.3		9.16		91.3	89.3	19.25		4
30	B030543	55.8		8.58		108.1	91.2	19.08		5
31	D04*5546	55.8		9.06		107.7	95.8	18.37	*	5
32	D04-5012	63.3		8.77		130.0	102.4	18.18	Q	3
33	GA991336-6E9	54.9	*	9.60	*	113.1	95.9	18.22	Q	4
34	GA991209-6E33	56.8		8.34		102.4	91.3	18.53		4
35	GA991371-6E13	57.5		8.90		114.8	93.0	19.13		5
36	GA991227-6A33	57.9		8.50		91.9	90.9	18.58		4
37	W98007V1	61.2		8.90		112.6	100.8	18.20	Q	5
38	W98008J1	57.1		8.92		129.8	103.2	17.96	Q	3
39	W98008P1	59.4		8.89		115.7	107.6	18.25	Q	4
40	G59160	59.4		8.63		115.3	97.9	18.15	Q	4
41	G61505	58.0		8.63		124.0	92.6	19.04		5
42	G41732	48.9	Q	9.01		121.7	99.2	18.01	Q	4
	Average	57.0		9.1		111.1	97.5	18.4		4.2

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

LAB NO.		Composite of Interior Locations: Belle Mina, AL; Stuttgart, AR; Griffin, GA; Quantico, MD; Cleveland, MS	FHB (0-3)	WEATHERING (Yes/No)	SPROUTING (0-3)	BLACK POINT (0-3)	SHRIVELING AFTER CLEANING (0-3)
	Standard (#820781, AGS 2000)						
820781	1	AGS 2000	1	Y	0	1	0
820782	2	Pioneer Brand 26R61	2	Y	0	2	1
820783	3	Coker 9553	1	Y	0	1	0
820784	4	USG 3555	1	Y	0	1	0
820785	5	NC03-6228	1	?	0	1	0
820786	6	NC03-8026	1	Y	0	1	1
820787	7	VA04W-259	1	N	0	1	1
820788	8	LA99005UC-31-3-C	2	Y	0	2	1
820789	9	LA98214D-14-1-2-B	1	N	0	2	1
820790	10	MO011126	1	Y	0	1	0
820791	11	NC04-15533	1	?	0	1	0
820792	12	NC04-20814	1	?	0	1	0
820793	13	LA01140D-70	1	?	0	1	1
820794	14	LA01138D-52	1	Y	0	2	2
820795	15	AR96077-7-2	1	Y	0	1	1
820796	16	AR97124-4-3	1	N	0	1	1
820797	17	P992231A1-2-1	1	Y	0	1	0
820798	18	P03112A1-7-14	1	Y	0	1	0
820799	19	P04287A1-10	1	Y	0	1	0
820800	20	VA05W-250	2(?)	Y	0	1	1
	21	VA05W-258					
820801	22	VA05W-78	2-?	Y	0	1	2
820802	23	MD01W233-05-1	1	?	0	1	2
820803	24	MD01W233-06-16	1	N	0	1	2
820804	25	MD01W233-06-1	1	?	0	1	1
820805	26	TN801	2	Y	0	1	2
820806	27	M04-4715	2	Y	0	1	2
820807	28	M04*5109	1	?	0	1	1
820808	29	M03-3616-C	2	Y	0	2	2
820809	30	B030543	1	N	0	1	1
820810	31	D04*5546	1	Y	0	2	1
820811	32	D04-5012	2	Y	0	2	2
820812	33	GA991336-6E9	1	Y	0	2	2
820813	34	GA991209-6E33	1	N	0	2	1
820814	35	GA991371-6E13	2	Y	0	2	2
820815	36	GA991227-6A33	1-?	N	0	2	1
820816	37	W98007V1	1-?	N	0	1	1
820817	38	W98008J1	1-?	?	0	1	2
820818	39	W98008P1	2	Y	0	1	3
820819	40	G59160	1	N	0	1	1
820820	41	G61505	1	N	0	1	1
820821	42	G41732	1	N	0	1	1

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

Composite of Interior Locations: Belle Mina, AL; Stuttgart, AR; Griffin, GA; Quantico, MD; Cleveland, MS

COMMENTS

Standard (#820781, AGS 2000)

1	AGS 2000	
2	Pioneer Brand 26R61	
3	Coker 9553	
4	USG 3555	
5	NC03-6228	Few white
6	NC03-8026	Few white
7	VA04W-259	
8	LA99005UC-31-3-C	
9	LA98214D-14-1-2-B	
10	MO011126	
11	NC04-15533	
12	NC04-20814	
13	LA01140D-70	
14	LA01138D-52	
15	AR96077-7-2	
16	AR97124-4-3	
17	P992231A1-2-1	
18	P03112A1-7-14	
19	P04287A1-10	
20	VA05W-250	
21	VA05W-258	
22	VA05W-78	
23	MD01W233-05-1	
24	MD01W233-06-16	
25	MD01W233-06-1	
26	TN801	
27	M04-4715	Few white
28	M04*5109	
29	M03-3616-C	
30	B030543	
31	D04*5546	
32	D04-5012	
33	GA991336-6E9	Red & white mix
34	GA991209-6E33	
35	GA991371-6E13	
36	GA991227-6A33	
37	W98007V1	
38	W98008J1	
39	W98008P1	Few white
40	G59160	
41	G61505	
42	G41732	

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

Composite of Interior Locations:
Belle Mina, AL; Stuttgart, AR;
Griffin, GA; Quantico, MD;
Cleveland, MS

EVALUATION SUMMARY

	STD. DATA		AVG. DATA
MILLING QUALITY SCORE	85.91	A	69.1
BAKING QUALITY SCORE	69.87	C	57.1
SE SCORE	62.91	C	57.4

	STD DATA	AVG DATA	ADJ LSD	NOTATION BEGINS *	Q
TEST WEIGHT	62.17	61.24	1.20	60.97	59.77
FLOUR YIELD	73.14	69.78	0.79	72.35	71.56
SOFTNESS EQUIV.	58.88	56.96	3.17	55.71	52.55
FLOUR PROTEIN	8.85	9.09	0.72	9.56	10.28
LACTIC ACID RETENTION	102.68	111.07			
SUCROSE SRC	94.83	97.54			
COOKIE DIAMETER	18.76	18.37	0.25	18.51	18.26

	A	B	C	D	E	F	TOTAL
MILLING SCORE	3	15	19	4	0	0	
BAKING SCORE	3	6	7	11	9	5	41
SOFTNESS EQUIV. SCORE	0	2	14	20	4	1	