

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service

State Agricultural Experiment Stations, Cooperating

2000 - 2001

UNIFORM EASTERN SOFT RED WINTER WHEAT NURSERY

Report

Compiled by: H.E. Bockelman, Agronomist

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

November, 2001

Table of Contents

List of Entries and Pedigrees	3
Location Notes	4-12
Yield	13-17
Test Weight	18-22
Kernel Weight	23
Heading Date	24-28
Height	29-33
Lodging	34-36
Winter Kill	37-38
Leaf Rust	39-40
Stem Rust	41
Stripe Rust	42
Septoria	43-44
Powdery Mildew	45-50
Fusarium Head Blight (Scab)	51
BYDV	52
SBMV	53
Spindle Streak	54
Hessian Fly	55
Maturity	56
Spring Phenotype	57
Acid Soil Tolerance	58
IRS Status	59
Milling and Baking Quality	60-64

2000-2001 UNIFORM EASTERN SOFT RED WINTER WHEAT NURSERY

LIST OF ENTRIES AND PEDIGREES

Entry No.	Cultivar/ Designation	Pedigree	Contributor	1st Year in Nurs
1	Caldwell	Benhur sib*2/Siete Cerros	Check	88-89
2	Foster	KY 83-60/Tyler/KY 83-75 (previously tested as KY 85C-31-6)	Check	96-97
3	Patton	SW85*94/IN82104B1-3-2 (previously tested as A94-1048)	Check	96-97
4	Roane	VA71-54-147(CI17449)/C68-15/IN65309C1-18-2-3-2 (prev. VA93-54-429)	Check	95-96
5	VA98W-593	IN71761A4-31-5-48//VA7154-147/McNair1813/AL870365(C747*2/Amigo)	Griffey	99-00
6	IL94-1653	MOW12213/IL87-3235-1 (Cardinal/Caldwell)	Kolb	99-00
7	IL95-947	IL85-3132-1 (McNair1003/Caldwell)/Pio2571	Kolb	99-00
8	KY90C-292-4-1	Madison/Pio.Exptl XW571//2548	Van Sanford	99-00
9	KY90C-054-6	FFR555W/2548	Van Sanford	99-00
10	OH645	Pio.2555/Clark//Howell/OH389	Lipps	99-00
11	B950770	McNair1003/C916/4/C65-20*4//Wichita*//Transfer/3/R-Blueboy	Hancock	99-00
12	92145E8-7-7-1-9	Coker 84-27/Cotipora//Roazon/Caldwell*2	Ohm	99-00
13	AR839-27-1-3	Terral 101/Pioneer 2548	Bacon	99-00
14	AR584A-3-1-3	FL302//Coker 833/Hunter	Bacon	00-01
15	AR839-28-1-2	Terral 101/Pioneer 2580	Bacon	00-01
16	KY91C-171-24	NASW85-5626/Madison//2548	Van Sanford	00-01
17	Sunny (exp. name)	GR860/P2550//Hopewell	Lafever	00-01
18	Honey (exp. name)	Dynasty/3/NASW84-345/Coker 9835//OH419/OH389	Lafever	00-01
19	Zorro (exp. name)	OH285/Fundulea//OH336/Dynasty/3/P2551	Lafever	00-01
20	VA97W-206	VA88-54-338 (Lovrin29/Tyler//Redcoat*2/Gaines)/ VA89-52-39 (Saluda/Massey)	Griffey	00-01
21	VA98W-591	VA92-51-39 (IN71761A4-31-5-48//VA71-54-147/McNair1813)/ AL870365 (Coker 747*2/Amigo)	Griffey	00-01
22	VA99W-564	VA92-52—50 (Adria/2*Saluda)//Ck9803/Freedom/3/ VA92-51-39 (IN71761A4-31-5-48//VA71-54-147/McNair1813)	Griffey	00-01
23	T123	T441/T63	Wilson	00-01
24	T124	T814*2//Coker 747/Roazon	Wilson	00-01
25	MO 960903	IL85-2872/MO 10501	McKendry	00-01
26	MO 980525	MO 11769/Madison	McKendry	00-01
27	91202RB1-3-3-19	81401A1//Cotipora/Clark*2	Ohm	00-01
28	92201D5-2-29	86350RA1//Caldwell*2/Roazon/3/OH470	Ohm	00-01
29	92212RC4-3-137-2	88288C1/881072RA5/3/Grant//Clark/Tyler	Ohm	00-01
30	B960457	Coker 9227//Blueboy II/AL850050	Hancock	00-01
31	B961160	Coker 9803/VA85-54-290	Hancock	00-01
32	B961416	PS840061/Saluda//Coker 9803	Hancock	00-01
33	OH 684	Glory/OH449	Lipps	00-01
34	OH 687	Pio2548/Pio2545	Lipps	00-01
35	G09139	Sawyer/T812//C86-33	Brown	00-01
36	G09093	IL84-3010/T812	Brown	00-01
37	G09107	NASW85-94/P2555	Brown	00-01
38	G09108	Howell/Clark	Brown	00-01
39	IL95-4162	PSR W71/Howell/IL84-4046	Kolb	00-01
40	M97-1048	Wakefield//Pike/FL302	Beazer	00-01
41	M97-1171	Pioneer 2555//Magnum/76-110C-3	Beazer	00-01
42	M97-1381	E86*1054/Cardinal	Beazer	00-01
43	TW97613	Ruby/TW87213 (Augusta//WW501/Yorkstar	Shugar	00-01
44	TW005-008	Bavaria/P2510	Shugar	00-01

LOCATION NOTES

Bay, Arkansas

Cooperators: June Hancock, Craig Allen, David Hill
Syngenta
Planted: October 16, 2000
Harvested: June 12, 2001
Comments: Dry planting conditions, then late November wet and cold. Very dry in April and May, which lead to problems in sandy areas. Plots were under extreme drought conditions.

Fayetteville, Arkansas

Cooperators: Gene Milus
University of Arkansas
Planted: October 19, 2000
Fertilizer: 80-0-0
Comments: Values are the percentage of diseased foliage estimated on single-row plots with two replications. Stripe rust: inoculated with race PST-80 (virulent on Lemhi, Heines VII, Produra, Lee, Fielder, Express, Yr8, Yr9, Clement, Compare). Leaf rust: inoculated with three races, TLGL (virulent on Lr1, 2a, 2c, 3, 9, 11, 10), TNRL (virulent on Lr1, 2a, 2c, 3, 9, 24, 3ka, 11, 30, 10), MCRL (virulent on Lr1, 3, 26, 3ka, 11, 30, 10). Septoria: natural infection.

Kibler, Arkansas

Cooperators: Gene Milus
University of Arkansas
Planted: November 17, 2000
Fertilizer: 80-0-0
Comments: Leaf rust: inoculated with race TNRL.

Keiser, Arkansas

Cooperators: Robert Bacon, John Kelly
University of Arkansas
Planted: October 11, 2000
Harvested: June 21, 2001
Fertilizer: 150-0-0

University of Delaware

Cooperators: Bob Uniatowski
University of Delaware

Quincy, Florida

Cooperators: Ron Barnett, Lloyd Schell
University of Florida
Planted: November 22, 2000
Fertilizer: 75-50-75

Griffin, Georgia

Cooperators: Jerry Johnson, Barry Cunfer, Dan Bland
University of Georgia
Planted: November 5, 2000
Harvested: June 11, 2001
Fertilizer: 20-0-0 at planting; 80-0-0 topdress
Comments: Planted about three weeks later than normal due to rainfall in November. Dry spring with minimal disease pressure. Considerable range in test weights partly because of range in maturity.

Aberdeen, Idaho

Cooperators: Charles Erickson, Scott McNeil, Harold Bockelman
USDA-ARS National Small Grains Collection
Planted: September 25, 2000
Harvested: July 23, 2001

Brownstown, Illinois

Cooperators: Fred Kolb, Norman Smith, Larry Boze
University of Illinois
Planted: October 13, 2000
Comments: Damage from standing water during the winter resulted in many missing plots, therefore yield data are not reported. The entry effect was not significant.

Urbana, Illinois

Cooperators: Fred Kolb, Norman Smith, Larry Boze
University of Illinois
Planted: September 30, 2000
Harvested: June 28, 2001
Fertilizer: 40-0-0 fall; 50-0-0 spring
Comments: Little disease pressure. Yield plots sprayed with Warrior for armyworms, which stripped leaves in many plots. No head clipping observed. Winter survival based on two reps of short rows planted several weeks later than yield plots. Winter survival: 0=no survival, 9=excellent survival. BYDV ratings and % dwarfing based on two reps of PAV-IL-BYDV inoculated hills. ?=possible infected control hill. BYDV ratings: 0=no symptoms, 9=severe symptoms. Kernel quality samples from scab nursery: 0=no shriveled kernels, 9=all shriveled.

Greensburg, Indiana

Cooperators: Sam Brown
Genesis Seed Research
Planted: October 6, 2000
Harvested: July 2, 2001
Fertilizer: 28-46-32 fall; 60-0-0 spring
Comments: Good stand establishment, mild winter, snow cover during coldest parts, cool spring, ample moisture, heavy mildew development. Entry 6 & 30 had hog damage in one rep. Entry 38 had hog damage in both reps.

Wabash, Indiana

Cooperators: Gordon Cisar
Cargill-Goertzen Seed Research
Comments: Variable nursery, standing water. Not harvested. Level of powdery mildew disease pressure not high. Believe most of the blackened, discolored head symptoms were S. nodorum.

West Lafayette, Indiana

Cooperators: Herb Ohm
Purdue University
Planted: September 29, 2000
Harvested: June 28, 2001
Fertilizer: 30 Fall/90 Spring N-80P-00K
Comments: Snow covered, so no winter kill. Weather was dry in April-May, so little or late disease. Cool in April-May favored stripe rust. Favorable weather for excellent grain fill.

West Lafayette, Indiana

Cooperators: Roger Ratcliffe, Sue Cambron
USDA-ARS Crop Production & Pest Control Research
Comments: Provided Hessian fly data.

Woodburn, Indiana

Cooperators: Curtis Beazer
AgriPro Wheat
Planted: October 13, 2000
Harvested: July 9, 2001
Fertilizer: 35 lbs fall; 85 lbs spring
Comments: Snow drifts, wind and planting moisture caused varied winter survival. Plots could be poor in the middle only or weak only on the ends. All lines had good regrowth, but maturity, height and diseases were difficult to rate. As a precaution the location was sprayed for armyworms. Only light feeding was observed.

Wichita, Kansas

Cooperators: Jim Wilson
Trio Research
Planted: October 12, 2000
Harvested: June 18, 2001
Fertilizer: 125-0-0
Comments: Spotty stands, water damage to seedlings.

Winfield, Kansas

Cooperators: Sid Perry
Cargill-Goertzen Seed Research

Logan County, Kentucky

Cooperators: Dave Van Sanford
University of Kentucky
Planted: October 12, 2000
Harvested: June 19, 2001
Fertilizer: 45-0-0 at GS-3; 60-0-0 at GS-5
Comments: Record year, little disease. Lexington location lost to heaving.

Baton Rouge, Louisiana

Cooperators: Steve Harrison
Louisiana State University
Planted: December 9, 2000
Comments: Six-row headrow plot, single rep. Planted in December, about three weeks late due to heavy rains in November. Several lines only partially vernalized. No leaf rust, very dry spring. Leaf blotch was mostly *S. nodorum* with some tan spot, confounded with maturity.

[Michigan]

Clarksville, Maryland

Cooperators: Jose Costa, Aaron Cooper
University of Maryland
Planted: October 6, 2000
Harvested: June 30, 2001
Fertilizer: 60-0-0 spring
Comments: Dry spring, which affected yields and limited powdery mildew development.

St. Paul, Minnesota

Cooperators: Dave Long, Don McVey
USDA-ARS Cereal Disease Laboratory
Comments: Leaf rust and stem rust data.

Columbia, Missouri

Cooperators: Anne L. McKendry, David N. Tague
University of Missouri
Planted: October 12, 2000
Harvested: June 29, 2001
Fertilizer: 40-0-0 fall; 80-0-0 spring
Comments: Fall seedbed very wet due to persistent rainfall. December was the second coldest on record (11-14 degrees below normal). March was cooler and drier than normal, which slowed green-up statewide. Early May had above normal temperatures, however the last two weeks in May had below normal temperatures, which extended grainfill. Stripe rust came in late. Septoria pressure was low. Other diseases negligible.

Lincoln, Nebraska

Cooperators: Stephen Baenziger
University of Nebraska
Planted: September 27, 2000
Harvested: July 10, 2001
Comments: Diseases were mainly stripe rust, but leaf and stem rusts also came in. 1=little damage, 4=severe damage.
Winterkill 9=no loss, 0=total loss.

Lincoln, Nebraska

Cooperators: Robert A. Graybosch
USDA-ARS Wheat, Sorghum, and Forage Research Unit
Comments: Provided the IRS data.

Ithaca, New York

Cooperators: Mark E. Sorrells
Cornell University
Planted: October 12, 2000
Harvested: July 28, 2001
Fertilizer: 20-40-40 fall; 100 lbs. NH₄NO₃ spring

Raleigh, North Carolina

cooperators: Lynda Whitcher
USDA-ARS Plant Science Research Unit
Comments: Powdery mildew evaluations were completed on detached primary leaves from ten day old plants. Leaves were cut into 3 cm sections and suspended on 0.5 % water agar amended with 50 ppm benzimidazole. Leaf sections were uniformly inoculated with conidia of *Blumeria graminis* f. sp. *tritici* (= *Erysiphe graminis* f. sp. *tritici*). The leaf sections were evaluated eight and ten days after inoculation on a ten point scale. The data from two replications and two rating dates were combined and condensed into one of three categories: Resistant (R), Intermediate (I), or Susceptible (S).

Smithville, Ohio

Cooperators: Howard Lafever, Robert Gooding
Sunbeam Extract Co.
Planted: September 27, 2000
Harvested: July 10, 2001

Wooster, Ohio

Cooperators: Clay Sneller
Ohio State University, OARDC
Planted: October 2, 2000
Harvested: July 12, 2001
Fertilizer: 12-48-48; 80-0-0

Wooster, Ohio

Cooperators: Charles Gaines
USDA-ARS Soft Wheat Quality Lab
Comments: Quality data.

Enid, Oklahoma

Cooperators: Brett Carver, Melisa Rice
Oklahoma State University
Comments: Acid soil tolerance ratings. Standard used to set scale was 2163, a tolerant HRW wheat with an assigned value of 2 on a scale of 1 (tolerant) to 5 (susceptible). Three readings were collected, but only the final two were reported due to bias from unusually wet soil conditions. Readings reported may still be confounded by lack of moisture stress and by inherent differences in forage production unrelated to acid soil tolerance. Data collected only on new entries.

Nairn, Ontario

Cooperators: Les Shugar
W.G. Thompson & Sons, Nairn Research Lab
Planted: October 14, 2000
Harvested: 12-48-48 fall; 34-0-0 (100 lbs actual) spring
Comments: Heavy snow cover from December (45cm) through to end of February (25cm). Heavy winter kill due to snow mold and icing. Good conditions in spring favored growth and development.

Ridgetown, Ontario

Cooperators: Arend E. Smid
Ridgetown College, University of Guelph
Planted: October 13, 2000
Harvested: July 17, 2001
Fertilizer: Fall ppi 200 kg 6-24-24/ha; spring td 55 kg N/ha as NH₄NO₃. Buctril M @ 1 l/ha @ Z31.
Comments: Excellent growing conditions. Little or no rain after mid-June.

Knoxville, Tennessee

Cooperators: Dennis West
University of Tennessee
Planted: October 30, 2000
Harvested: June 13, 2001
Fertilizer: 60-75-75
Comments: Leaf blotch is primarily Septoria, partially confounded with maturity.

Overton, Texas

Cooperators: Lloyd R. Nelson
Texas A&M University
Planted: October 17, 2000
Harvested: May 25, 2001
Fertilizer: 35-91-91

Blacksburg, Virginia

Cooperators: Carl A. Griffey
Virginia Tech
Planted: October 4, 2000
Harvested: July 7, 2001
Fertilizer: 75-0-0; Harmony Extra (0.6 oz/a) on 4/14
Comments: Blacksburg experienced freezing temperatures in mid- to late April. Freeze damage was evaluated in May on the basis of presence or absence without regard to severity. Asterisks (*) indicate the number of reps in which freeze damage was noted. For example (**) indicate that freeze damage was present in two of the three reps in the test. All field 0-9 ratings indicate relative severity where 0=none and 9=total. Belgian lodging scale= area x intensity x 0.2. Area is rated on a scale from 1 (plot unaffected) to 10 (entire plot affected). Intensity is rated on a scale from 1 (plants standing upright) to 5 (plants lying flat on the ground). Greenhouse disease screening: MCRQ and TLGG are races of leaf rust. PM Composite is a combination of several powdery mildew isolates. Roane represents a powdery mildew isolate collected and increased on the cultivar Roane and is a potentially new isolate. Leaf rust was rated on a 0-3 scale where 3=susceptible. Powdery mildew was rated on a 0-4 scale where 4=susceptible.

Warsaw, Virginia

Cooperators:

Carl A. Griffey
Virginia Tech

Comments:

One-replicate observation. Early plant height serves as an indicator of spring growth habit. All 0-9 ratings indicate relative severity where 0=none and 9=total. Belgian lodging scale= area x intensity x 0.2. Area is rated on a scale from 1 (plot unaffected) to 10 (entire plot affected). Intensity is rated on a scale from 1 (plants standing upright) to 5 (plants lying flat on the ground).

Arlington, Wisconsin

Cooperators:

Joe Lauer, Mark Martinka
University of Wisconsin

Planted:

September 19, 2000

Harvested:

July 24, 2001

Fertilizer:

50 lbs. at tillering

YIELD (bu/acre)

	Bay AR	Keiser AR	Newark DE	Quincy FL	Griffin GA	Aberdeen ID	Urbana IL							
	#	#	#	#	#	#	#							
	rank	rank	rank	rank	rank	rank	rank							
1 Caldwell	62.5	41	51.1	38	83.9	4	37.1	42	33.2	41	91.7	15	84.0	39
2 Foster	76.0	11	55.9	27	79.2	12	60.9	35	52.1	29	82.2	32	92.7	15
3 Patton	73.6	16	62.2	11	83.2	7	69.5	24	62.4	17	89.0	19	99.4	1
4 Roane	66.2	35	56.1	26	86.8	2	64.2	32	71.2	8	85.5	24	90.2	24
5 VA98W-593	67.2	32	65.4	6	75.8	21	77.2	9	69.0	9	76.5	37	89.1	28
6 IL94-1653	66.6	34	50.4	39	67.2	39	36.6	43	32.5	42	88.7	20	96.2	5
7 IL95-947	71.9	21	66.4	5	82.1	8	66.8	29	60.2	19	109.5	2	90.6	22
8 KY90C-292-4-1	78.4	7	60.3	15	78.8	13	75.8	10	49.7	33	82.8	30	94.9	7
9 KY90C-054-6	76.5	8	68.6	4	83.9	5	77.3	8	66.6	11	81.6	33	93.8	10
10 OH645	70.9	24	68.9	3	65.0	41	74.8	11	65.4	12	91.0	16	92.3	17
11 B950770	70.7	27	54.5	30	73.9	27	73.1	16	71.8	7	85.3	26	84.2	38
12 92145E8-7-7-1-9	68.3	31	58.1	21	81.5	10	77.4	6	49.9	32	74.3	39	90.8	20
13 AR839-27-1-3	78.8	6	64.4	8	76.8	18	74.1	14	39.4	39	87.1	22	92.6	16
14 AR584A-3-1-3	75.7	12	49.1	41	77.7	16	61.7	34	57.9	21	77.6	36	82.5	41
15 AR839-28-1-2	85.0	2	71.2	1	75.6	22	73.1	17	44.7	37	98.0	9	88.8	29
16 KY91C-171-24	87.5	1	70.1	2	74.8	25	77.5	5	54.2	25	93.8	11	85.5	36
17 Sunny (exp. name)	76.1	10	62.6	9	76.6	20	33.0	44	54.0	26	92.5	14	90.2	23
18 Honey (exp. name)	82.5	3	59.9	17	75.1	23	72.0	19	60.3	18	99.2	8	96.7	4
19 Zorro (exp. name)	74.8	14	59.8	18	74.1	26	60.1	36	58.7	20	68.5	44	79.5	42
20 VA97W-206	76.4	9	54.2	32	87.3	1	82.8	1	54.3	24	90.7	17	98.3	2
21 VA98W-591	70.6	28	65.2	7	80.3	11	81.0	2	74.6	5	77.6	35	88.6	30
22 VA99W-564	73.1	17	62.1	12	76.7	19	72.4	18	81.5	3	93.3	12	89.2	27
23 T123	53.5	44	62.5	10	66.8	40	58.3	38	62.9	16	83.9	29	90.9	19
24 T124	65.4	36	53.3	34	68.6	38	69.4	25	49.7	34	103.8	3	94.9	8
25 MO 960903	70.8	26	61.5	14	84.8	3	64.8	31	64.0	13	76.4	38	93.6	12
26 MO 980525	70.9	25	56.3	25	71.9	29	74.5	12	63.1	15	99.5	7	98.2	3
27 91202RB1-3-3-19	64.3	38	49.2	40	64.9	42	65.9	30	30.4	44	71.2	43	94.9	9
28 92201D5-2-29	55.6	43	56.4	24	70.6	33	79.4	3	77.8	4	72.4	40	84.4	37
29 92212RC4-3-137-2	62.6	40	47.8	42	69.0	36	74.5	13	73.1	6	87.5	21	93.8	11
30 B960457	59.0	42	55.1	29	78.4	15	58.4	37	84.3	1	101.7	4	87.8	32
31 B961160	75.2	13	59.3	19	71.2	31	78.5	4	68.4	10	71.9	41	79.3	43
32 B961416	73.7	15	52.6	37	72.5	28	68.9	26	82.4	2	82.6	31	78.6	44
33 OH 684	72.0	19	53.1	35	75.1	24	70.2	22	63.2	14	89.9	18	90.8	21
34 OH 687	62.7	39	61.6	13	71.5	30	67.6	27	53.3	27	93.0	13	93.1	14
35 G09139	66.9	33	47.6	43	69.4	35	71.9	20	56.0	23	100.5	5	83.6	40
36 G09093	69.8	29	58.2	20	58.1	44	67.4	28	53.2	28	77.8	34	86.9	34
37 G09107	71.8	22	55.7	28	70.8	32	62.1	33	32.5	43	85.0	28	89.8	25
38 G09108	73.1	18	57.1	23	70.0	34	52.6	39	50.2	31	93.8	10	95.4	6
39 IL95-4162	72.0	20	52.9	36	62.1	43	73.1	15	35.7	40	85.1	27	87.6	33
40 M97-1048	71.7	23	53.8	33	83.9	6	70.5	21	44.8	36	85.3	25	86.1	35
41 M97-1171	81.6	4	60.1	16	68.7	37	77.4	7	46.8	35	71.4	42	91.7	18
42 M97-1381	79.7	5	57.6	22	77.6	17	49.6	40	57.2	22	87.1	23	89.6	26
43 TW97613	69.8	30	46.9	44	82.0	9	69.6	23	42.6	38	100.4	6	88.0	31
44 TW005-008	64.8	37	54.3	31	78.6	14	39.6	41	50.4	30	110.2	1	93.6	13
LOCATION MEANS	71.3		57.9		75.1		66.9		56.9		87.4		90.1	
LSD (.05)	14.5		11.3				14.7				21.45		5.56	
CV %	12.5		12				10.9				17.87		4.55	
REPS	3		3				2		1		4		3	
Harvest Plot Size (sq.ft.)	60.2		61.25				60		50		18.67			

YIELD (bu/acre)

		Greensburg		W. Lafayette		Woodburn		Wichita		Winfield		Logan Co.		Clarksville	
		IN		IN		IN		KS		KS		KY		MD	
		#	@	#	@	#	@	#	@	#	@	#	@	#	@
	rank		rank		rank		rank		rank		rank		rank		rank
1	Caldwell	79.3	44	98.2	35	55.1	44	45.7	32	64.1	28	79.2	41	82.2	5
2	Foster	82.8	42	90.1	44	59.2	40	45.2	34	58.3	35	97.5	10	78.0	17
3	Patton	109.2	3	102.7	19	66.4	25	47.9	26	59.9	34	84.2	31	82.3	4
4	Roane	92.7	32	97.5	37	65.6	28	45.9	31	70.7	14	90.0	21	87.0	1
5	VA98W-593	96.2	25	103.8	17	68.2	21	37.4	40	55.2	38	109.2	2	77.5	20
6	IL94-1653	96.2	24	106.7	6	70.1	14	44.0	35	68.9	20	86.1	26	79.6	14
7	IL95-947	97.7	22	105.9	10	73.6	8	55.5	7	75.0	5	101.9	5	71.7	35
8	KY90C-292-4-1	115.3	1	103.8	18	64.8	30	51.5	18	77.7	1	110.2	1	74.1	26
9	KY90C-054-6	102.3	11	98.8	30	69.2	17	56.9	5	66.5	24	87.1	25	75.0	24
10	OH645	101.1	15	101.1	23	67.0	23	54.1	14	70.3	15	94.3	15	61.4	44
11	B950770	104.0	5	97.9	36	62.2	36	48.1	24	75.5	4	79.8	39	72.5	34
12	92145E8-7-7-1-9	92.1	35	105.8	12	66.2	26	36.8	41	53.7	41	90.8	20	72.7	32
13	AR839-27-1-3	102.7	10	104.7	16	67.3	22	63.8	1	76.1	2	82.7	33	79.8	11
14	AR584A-3-1-3	97.0	23	100.5	25	64.4	32	53.9	15	72.9	8	80.9	38	77.6	19
15	AR839-28-1-2	103.4	7	94.7	41	71.4	12	59.2	2	73.0	7	88.3	24	82.2	6
16	KY91C-171-24	92.2	34	100.5	26	66.7	24	41.5	37	57.2	36	88.5	23	73.0	30
17	Sunny (exp. name)	91.2	36	98.6	32	72.5	10	48.8	23	49.5	44	100.3	6	70.4	38
18	Honey (exp. name)	103.0	9	105.5	14	69.0	18	34.8	42	57.0	37	103.5	4	78.5	15
19	Zorro (exp. name)	100.3	17	96.2	39	61.5	38	40.5	39	52.6	42	97.5	11	73.5	27
20	VA97W-206	98.2	21	108.5	2	72.6	9	49.4	21	61.9	32	107.2	3	78.0	18
21	VA98W-591	103.1	8	106.2	7	69.0	19	49.1	22	69.8	17	100.0	7	81.5	8
22	VA99W-564	101.6	12	101.4	22	69.3	16	45.4	33	64.7	27	82.3	35	67.5	40
23	T123	100.3	16	95.2	40	70.9	13	58.1	4	64.1	29	78.5	42	76.6	21
24	T124	90.3	38	107.1	4	76.0	2	58.8	3	70.8	13	96.1	13	66.4	41
25	MO 960903	112.9	2	109.2	1	74.1	7	46.7	30	67.4	22	89.4	22	78.4	16
26	MO 980525	103.9	6	104.9	15	80.6	1	53.1	16	70.0	16	95.6	14	85.0	3
27	91202RB1-3-3-19	92.5	33	92.2	42	56.4	43	47.0	28	69.8	18	82.1	36	75.1	23
28	92201D5-2-29	95.6	27	107.8	3	69.7	15	41.3	38	64.8	26	99.2	9	71.7	37
29	92212RC4-3-137-2	95.9	26	106.0	8	58.7	41	50.3	19	72.5	9	99.5	8	85.2	2
30	B960457	91.1	37	107.1	5	74.1	5	26.7	44	54.6	39	81.9	37	72.6	33
31	B961160	95.5	28	91.9	43	65.6	29	54.9	11	69.7	19	82.5	34	79.7	13
32	B961416	94.0	30	96.7	38	62.5	35	43.7	36	67.4	23	79.4	40	79.7	12
33	OH 684	101.5	13	102.5	20	64.6	31	54.2	13	63.2	31	92.2	18	82.1	7
34	OH 687	105.4	4	100.7	24	72.1	11	47.4	27	60.8	33	93.9	16	74.3	25
35	G09139	95.4	29	100.2	27	62.9	34	54.9	12	72.2	10	74.4	44	80.6	9
36	G09093	99.1	20	101.5	21	68.5	20	52.3	17	68.4	21	96.3	12	65.2	43
37	G09107	87.9	39	106.0	9	63.3	33	55.3	9	72.0	12	93.0	17	73.2	28
38	G09108	83.2	41	98.7	31	61.6	37	48.1	25	65.9	25	84.6	28	75.2	22
39	IL95-4162	83.9	40	98.3	34	57.9	42	55.3	10	76.1	3	78.2	43	72.9	31
40	M97-1048	101.3	14	98.4	33	65.9	27	55.5	8	74.2	6	84.4	29	73.0	29
41	M97-1171	100.2	18	99.5	29	60.4	39	56.1	6	72.1	11	91.6	19	80.5	10
42	M97-1381	100.1	19	105.9	11	75.8	3	47.0	29	54.1	40	83.6	32	71.7	36
43	TW97613	80.1	43	105.7	13	75.7	4	28.7	43	50.3	43	84.4	30	65.9	42
44	TW005-008	92.8	31	99.7	28	74.1	6	49.8	20	63.4	30	85.7	27	68.7	39
LOCATION MEANS		96.9		101.5		67.3		48.7		65.8		90.2		75.7	
LSD (.05)		6.98		9.1		6.3		9.9		4.8		17.9		11.6	
CV %		5.24		6.4		8.1		12.5		4.4		11.9		9.5	
REPS		2		4		3		3				2		3	
Harvest Plot Size (sq.ft.)		32		32		60		45				40		56	

YIELD (bu/acre)

	Columbia MO		Lincoln NE		Ithaca NY		Smithville OH		Wooster OH		Naim ON		Ridgetown ON	
	#	rank	#	rank	#	rank	#	rank	#@	rank	#@	rank	#@	rank
1 Caldwell	76.5	17	57.5	30	52.0	25	62.3	39	67.3	44	62.7	40	93.9	44
2 Foster	61.2	41	41.7	37	54.6	20	64.2	36	70.6	42	78.8	33	102.7	29
3 Patton	78.8	11	68.2	19	56.2	15	86.2	1	81.4	23	89.0	15	113.5	5
4 Roane	83.5	4	49.1	35	61.6	10	67.1	31	96.5	1	88.3	17	113.4	6
5 VA98W-593	77.9	14	60.5	28	55.2	17	65.6	32	79.0	28	92.2	9	109.1	14
6 IL94-1653	79.2	10	76.7	7	54.3	21	69.1	25	78.7	30	88.3	16	109.6	10
7 IL95-947	72.2	27	84.9	1	53.1	23	48.7	44	85.0	14	77.7	35	110.3	8
8 KY90C-292-4-1	78.7	12	70.3	15	39.8	42	72.9	15	86.6	13	92.8	6	115.4	3
9 KY90C-054-6	84.2	3	62.7	24	54.0	22	59.2	41	87.3	10	99.4	3	118.2	1
10 OH645	63.6	38	77.5	6	51.4	29	74.1	14	88.8	7	89.1	14	108.0	17
11 B950770	69.0	33	76.7	8	49.8	32	63.3	37	78.9	29	81.8	30	101.3	35
12 92145E8-7-7-1-9	82.0	5	72.8	12	46.7	38	82.7	5	84.7	15	82.6	28	104.4	25
13 AR839-27-1-3	66.6	36	82.7	2	49.9	31	69.3	24	74.2	38	87.1	18	107.1	20
14 AR584A-3-1-3	69.0	34	62.5	25	42.0	41	70.2	21	79.5	26	86.8	19	100.8	36
15 AR839-28-1-2	60.1	43	75.8	9	47.7	36	65.2	33	72.9	40	71.4	38	107.9	18
16 KY91C-171-24	72.8	24	66.2	21	51.8	28	78.6	11	81.6	21	93.3	5	101.9	32
17 Sunny (exp. name)	52.9	44	68.9	17	64.2	5	85.7	2	78.6	32	91.6	11	108.7	15
18 Honey (exp. name)	81.2	7	80.3	5	49.4	33	79.1	10	78.4	33	103.1	1	109.3	12
19 Zorro (exp. name)	72.8	25	68.6	18	47.9	35	85.3	4	82.9	19	85.5	24	95.8	42
20 VA97W-206	79.5	9	41.2	38	61.0	11	79.4	9	94.8	2	91.6	10	109.5	11
21 VA98W-591	68.0	35	53.9	34	63.2	8	80.7	7	81.6	22	92.3	8	104.4	26
22 VA99W-564	70.6	30	26.2	42	52.0	26	68.9	26	93.7	3	83.5	27	100.5	38
23 T123	70.4	31	75.8	10	71.9	1	70.7	19	80.4	25	89.8	13	102.5	30
24 T124	74.5	19	82.0	3	65.3	4	67.5	30	79.4	27	100.7	2	101.5	34
25 MO 960903	86.7	2	44.4	36	48.3	34	68.6	27	88.6	8	84.8	26	107.0	21
26 MO 980525	80.8	8	72.5	13	56.1	16	79.6	8	91.8	6	82.3	29	115.8	2
27 91202RB1-3-3-19	63.5	39	71.6	14	37.9	44	69.5	23	75.9	36	33.6	43	97.3	41
28 92201D5-2-29	73.4	22	27.2	41	37.9	43	65.0	34	77.5	35	23.0	44	100.7	37
29 92212RC4-3-137-2	72.6	26	39.3	39	43.2	40	51.9	43	80.5	24	42.3	42	106.3	24
30 B960457	81.4	6	65.0	22	66.0	3	78.6	12	91.9	5	79.9	32	106.5	22
31 B961160	63.1	40	28.4	40	60.1	13	70.9	18	84.7	16	80.0	31	102.1	31
32 B961416	69.5	32	7.7	44	45.7	39	63.1	38	78.7	31	70.1	39	100.0	39
33 OH 684	74.3	21	57.7	29	52.7	24	70.5	20	86.9	12	84.8	25	101.8	33
34 OH 687	71.4	28	80.4	4	63.5	7	67.9	28	88.3	9	90.4	12	112.2	7
35 G09139	74.4	20	54.3	33	63.5	6	65.0	35	69.3	43	92.5	7	98.3	40
36 G09093	64.1	37	69.9	16	58.1	14	82.3	6	83.3	18	85.6	23	108.7	16
37 G09107	78.5	13	74.6	11	50.8	30	61.9	40	72.0	41	77.9	34	106.4	23
38 G09108	75.5	18	67.2	20	55.2	18	75.9	13	78.0	34	85.7	21	107.4	19
39 IL95-4162	71.2	29	63.2	23	54.7	19	67.7	29	73.6	39	61.5	41	95.4	43
40 M97-1048	73.0	23	62.2	26	69.3	2	85.4	3	92.4	4	85.7	22	110.0	9
41 M97-1171	87.4	1	62.1	27	46.8	37	70.0	22	81.8	20	72.8	37	104.4	27
42 M97-1381	77.6	15	55.7	32	60.4	12	71.7	17	84.7	17	86.6	20	104.2	28
43 TW97613	77.2	16	15.0	43	51.8	27	57.9	42	87.0	11	94.2	4	114.5	4
44 TW005-008	61.1	42	57.3	31	62.4	9	72.2	16	75.6	37	77.3	36	109.2	13
LOCATION MEANS	73.2		60.4		54.1		70.7		81.9		81.6		105.9	
LSD (.05)	17.7				11		17.7		6.1				6.2	
CV %	14.7				12.1		12.4		4.6		9.1		4.2	
REPS	3		1		3		2		3		3		4	
Harvest Plot Size (sq.ft.)	55		32		41		10		45		44.55			

YIELD (bu/acre)

	Knoxville		Overton		Blacksburg		Warsaw		Arlington		ENTRY MEANS		
	TN		TX		VA		VA		WI		ALL LOCATIONS		
	#@	rank	#@	rank	#@	rank	#	rank	#@	rank		rank	
1	Caldwell	57.1	43	53.4	26	63.5	41	43.2	44	62.5	34	65.4	44
2	Foster	65.4	24	65.7	1	70.6	36	57.8	34	65.7	23	69.6	38
3	Patton	72.8	11	48.6	32	78.9	17	81.1	4	74.6	5	77.7	5
4	Roane	73.4	9	58.6	17	96.9	1	63.1	24	74.8	4	76.8	8
5	VA98W-593	71.3	12	57.0	21	89.4	3	85.5	3	67.6	18	76.1	11
6	IL94-1653	58.8	41	43.5	38	77.4	20	76.3	12	74.9	3	72.2	28
7	IL95-947	58.9	40	51.0	30	75.9	22	56.1	37	76.0	2	76.1	10
8	KY90C-292-4-1	80.3	1	52.6	29	73.5	28	80.6	5	62.9	33	77.9	4
9	KY90C-054-6	68.6	17	60.3	6	81.1	9	73.5	15	67.9	17	77.7	7
10	OH645	63.5	31	49.9	31	81.0	10	80.5	7	69.4	13	75.9	12
11	B950770	63.6	30	59.6	12	75.0	24	56.6	36	65.4	25	72.9	25
12	92145E8-7-7-1-9	60.0	38	60.1	7	71.1	34	77.5	9	69.2	15	73.5	22
13	AR839-27-1-3	77.1	3	61.9	3	79.1	16	77.0	10	61.8	37	76.3	9
14	AR584A-3-1-3	61.1	35	58.3	18	74.2	26	60.3	29	63.7	30	71.4	33
15	AR839-28-1-2	71.0	13	59.9	11	79.7	14	71.1	18	56.3	42	74.9	16
16	KY91C-171-24	64.5	29	60.0	9	63.5	42	70.2	19	63.0	32	74.2	21
17	Sunny (exp. name)	65.6	23	56.4	22	78.1	18	76.6	11	64.7	27	73.4	23
18	Honey (exp. name)	75.6	6	52.8	28	82.1	7	71.2	17	61.4	38	77.7	6
19	Zorro (exp. name)	74.9	7	42.9	39	71.8	32	67.8	20	49.0	44	70.9	37
20	VA97W-206	59.8	39	54.2	25	90.0	2	80.5	6	71.0	9	78.2	3
21	VA98W-591	78.7	2	58.3	19	89.1	4	89.8	1	71.1	8	78.8	1
22	VA99W-564	61.0	36	59.1	16	80.5	12	85.9	2	72.9	6	74.4	19
23	T123	67.1	20	55.6	23	77.9	19	52.8	40	65.6	24	73.2	24
24	T124	63.3	32	46.5	35	76.4	21	57.9	33	67.0	21	75.1	15
25	MO 960903	69.2	15	46.6	34	73.2	29	75.5	14	69.6	12	75.2	14
26	MO 980525	64.7	26	53.2	27	80.5	13	66.2	22	68.2	16	78.4	2
27	91202RB1-3-3-19	51.2	44	38.8	42	83.9	5	75.7	13	52.4	43	65.7	43
28	92201D5-2-29	73.7	8	41.7	40	67.3	39	49.3	42	59.7	40	67.0	42
29	92212RC4-3-137-2	76.4	4	44.5	37	82.2	6	79.9	8	57.8	41	71.3	35
30	B960457	70.7	14	60.1	8	74.8	25	62.4	27	67.3	19	74.5	18
31	B961160	65.4	25	59.4	14	81.7	8	56.7	35	67.3	20	71.7	31
32	B961416	66.4	22	59.6	13	72.1	30	63.0	25	62.0	35	68.9	40
33	OH 684	73.2	10	61.9	4	72.1	31	64.8	23	63.5	31	74.6	17
34	OH 687	68.4	18	63.3	2	68.0	38	67.1	21	72.5	7	75.8	13
35	G09139	60.2	37	60.0	10	73.7	27	52.6	41	64.5	28	71.7	30
36	G09093	68.0	19	60.9	5	60.3	43	58.5	31	63.8	29	72.5	27
37	G09107	61.9	34	55.6	24	71.3	33	53.0	39	77.2	1	71.5	32
38	G09108	57.6	42	57.2	20	80.8	11	44.6	43	61.9	36	71.4	34
39	IL95-4162	67.0	21	47.0	33	68.4	37	55.8	38	70.8	10	68.7	41
40	M97-1048	64.6	27	32.1	43	67.0	40	71.4	16	70.1	11	74.3	20
41	M97-1171	64.6	28	31.9	44	43.4	44	62.9	26	59.8	39	71.0	36
42	M97-1381	68.9	16	40.3	41	71.1	35	61.1	28	69.4	14	72.6	26
43	TW97613	62.6	33	44.8	36	79.3	15	60.1	30	66.3	22	69.3	39
44	TW005-008	75.8	5	59.4	15	75.1	23	57.9	32	65.2	26	72.1	29
LOCATION MEANS		66.9		53.3		75.5		66.6		66.1			
LSD (.05)		10.8				9.5				9.1			
CV %		10				9.3				6.8			
REPS		3		1		3		1		2			
Harvest Plot Size (sq.ft.)		39		40		45		45		105			

YIELD (bu/acre)

		ENTRY MEANS IN-REGION		ENTRY MEANS CV < 10%	
		#	rank	@	rank
1	Caldwell	69.3	43	72.5	44
2	Foster	73.8	38	76.2	40
3	Patton	82.9	3	85.8	6
4	Roane	81.6	7	87.2	1
5	VA98W-593	81.3	10	83.2	13
6	IL94-1653	78.2	20	83.8	12
7	IL95-947	77.7	23	83.2	14
8	KY90C-292-4-1	82.3	5	86.8	3
9	KY90C-054-6	81.5	8	85.7	7
10	OH645	78.5	17	82.8	16
11	B950770	73.9	37	80.2	27
12	92145E8-7-7-1-9	78.3	18	79.4	33
13	AR839-27-1-3	78.9	14	84.1	10
14	AR584A-3-1-3	74.4	35	80.1	28
15	AR839-28-1-2	77.0	25	81.0	23
16	KY91C-171-24	77.9	21	78.6	36
17	Sunny (exp. name)	79.2	12	80.0	29
18	Honey (exp. name)	82.3	4	85.0	9
19	Zorro (exp. name)	76.4	26	77.0	39
20	VA97W-206	84.1	1	86.2	5
21	VA98W-591	83.3	2	86.3	4
22	VA99W-564	78.6	16	82.1	19
23	T123	76.0	28	81.8	21
24	T124	77.4	24	82.8	15
25	MO 960903	81.4	9	85.7	8
26	MO 980525	81.8	6	87.2	2
27	91202RB1-3-3-19	69.1	44	72.9	43
28	92201D5-2-29	70.5	42	74.7	42
29	92212RC4-3-137-2	74.3	36	79.8	32
30	B960457	78.2	19	81.5	22
31	B961160	75.4	31	80.2	26
32	B961416	72.6	40	77.3	38
33	OH 684	77.8	22	82.2	18
34	OH 687	79.2	13	83.8	11
35	G09139	73.4	39	79.4	34
36	G09093	75.6	30	79.9	30
37	G09107	74.9	33	79.9	31
38	G09108	74.8	34	79.3	35
39	IL95-4162	71.2	41	76.1	41
40	M97-1048	79.3	11	82.4	17
41	M97-1171	75.2	32	77.6	37
42	M97-1381	78.8	15	81.8	20
43	TW97613	76.3	27	80.8	25
44	TW005-008	76.0	29	80.9	24

LOCATION MEANS

LSD (.05)

CV %

REPS

Harvest Plot Size (sq.ft.)

TEST WEIGHT (lbs/bu)

		Bay AR	Keiser AR	Newark DE	Quincy FL	Griffin GA	Aberdeen ID
1	Caldwell	58.5	56.7	60.6	56.0	54.9	61.4
2	Foster	59.1	56.5	61.2	54.4	55.9	59.9
3	Patton	57.5	57.1	63.3	55.4	54.1	59.9
4	Roane	60.8	59.5	60.2	57.9	56.6	62.7
5	VA98W-593	61.1	60.5	61.5	58.6	57.9	61.6
6	IL94-1653	58.7	57.8	62.1	57.6	56.1	61.6
7	IL95-947	56.8	56.7	59.3	54.4	56.6	61.8
8	KY90C-292-4-1	59.4	57.3	59.7	56.6	55.9	60.7
9	KY90C-054-6	57.7	57.2	58.4	55.4	55.2	60.8
10	OH645	58.8	58.1	60.5	57.9	55.7	61.9
11	B950770	59.1	58.7	61.9	57.9	57.4	61.4
12	92145E8-7-7-1-9	53.2	53.1	54.8	50.9	52.2	59.3
13	AR839-27-1-3	59.6	57.6	60.1	56.6	56.4	60.5
14	AR584A-3-1-3	56.1	56.6	60.1	55.4	54.5	59.5
15	AR839-28-1-2	59.5	58.1	60.4	56.0	55.8	60.4
16	KY91C-171-24	62.0	59.9	61.3	60.5	56.5	62.0
17	Sunny (exp. name)	59.9	55.4	59.6	54.7	54.9	60.5
18	Honey (exp. name)	57.3	57.5	59.7	56.0	54.1	60.7
19	Zorro (exp. name)	58.6	57.9	58.5	58.2	55.7	59.6
20	VA97W-206	58.3	59.2	61.0	55.7	54.8	61.3
21	VA98W-591	60.4	57.7	61.5	59.5	56.3	61.7
22	VA99W-564	58.5	55.1	59.0	57.3	56.4	62.5
23	T123	57.5	51.2	58.9	54.1	56.2	61.6
24	T124	58.3	52.2	58.0	55.7	54.3	60.1
25	MO 960903	57.4	58.3	62.1	56.3	54.4	60.7
26	MO 980525	58.0	54.7	60.4	57.3	56.6	61.6
27	91202RB1-3-3-19	58.7	59.0	59.5	57.6	53.8	60.2
28	92201D5-2-29	58.1	58.9	60.2	59.5	56.6	61.9
29	92212RC4-3-137-2	58.3	58.8	60.5	57.3	54.5	60.0
30	B960457	55.8	55.2	57.4	56.6	53.8	60.8
31	B961160	58.9	57.7	59.9	58.9	55.9	61.6
32	B961416	58.2	57.5	61.0	58.6	57.0	61.2
33	OH 684	60.0	58.9	61.4	57.9	55.7	60.3
34	OH 687	56.9	55.7	58.4	56.6	54.6	60.6
35	G09139	55.2	54.6	58.6	54.7	54.7	60.8
36	G09093	58.1	56.7	58.6	55.7	54.9	59.7
37	G09107	58.6	56.9	58.9	54.1	54.1	60.3
38	G09108	57.3	54.3	58.9	55.7	54.5	61.2
39	IL95-4162	60.6	57.9	60.1	59.2	57.3	61.3
40	M97-1048	58.0	56.9	59.7	57.0	56.2	60.9
41	M97-1171	57.2	54.0	58.7	58.6	52.8	61.3
42	M97-1381	58.5	57.5	61.0	55.4	55.4	61.3
43	TW97613	57.8	52.4	56.0	58.9	53.5	60.7
44	TW005-008	58.4	57.7	57.6	56.3	55.8	61.3
LOCATION MEANS		58.3	56.8	59.8	56.7	55.4	60.9

TEST WEIGHT (lbs/bu)

	Brownstown IL	Urbana IL	Greensburg IN	W. Lafayette IN	Woodburn IN	Logan Co. KY
1 Caldwell	57.1	60.3	58.6	63.1	61.4	57.3
2 Foster	57.0	59.0	58.6	60.3	60.8	58.0
3 Patton	57.1	60.0	60.1	61.8	61.2	58.1
4 Roane	58.2	62.3	60.8	58.8	62.3	60.6
5 VA98W-593	60.6	62.5	61.9	59.3	62.9	61.2
6 IL94-1653	57.9	61.0	59.6	61.0	62.2	59.2
7 IL95-947	57.8	60.6	58.9	62.9	63.1	57.5
8 KY90C-292-4-1	57.6	60.8	58.9	62.6	61.1	58.1
9 KY90C-054-6	57.6	60.6	58.9	58.4	61.2	56.4
10 OH645	58.8	61.1	58.4	62.6	61.7	56.6
11 B950770	59.1	61.4	60.8	63.3	59.3	58.1
12 92145E8-7-7-1-9	54.4	56.1	56.9	61.5	59.8	55.0
13 AR839-27-1-3	58.0	60.0	59.2	57.6	60.9	57.7
14 AR584A-3-1-3	57.9	60.3	58.9	60.6	61.2	55.4
15 AR839-28-1-2	57.5	60.1	58.7	58.7	60.5	58.1
16 KY91C-171-24	59.9	63.2	61.1	62.7	61.4	60.0
17 Sunny (exp. name)	56.2	61.0	58.9	57.3	61.4	56.4
18 Honey (exp. name)	57.3	59.9	58.4	60.1	60.7	56.0
19 Zorro (exp. name)	58.1	61.2	59.2	63.2	62.7	56.9
20 VA97W-206	56.6	60.8	57.1	60.6	61.2	57.7
21 VA98W-591	60.1	62.4	61.4	62.2	59.5	57.3
22 VA99W-564	56.1	61.3	59.5	61.6	59.8	58.7
23 T123	57.3	53.7	54.8	54.3	57.2	57.8
24 T124	56.4	59.6	57.1	58.1	59.2	57.6
25 MO 960903	57.1	59.4	59.0	61.7	61.8	59.4
26 MO 980525	55.3	60.3	58.1	59.2	62.3	59.3
27 91202RB1-3-3-19	57.6	61.9	61.0	63.3	60.5	58.1
28 92201D5-2-29	58.6	61.8	60.2	63.6	56.6	59.7
29 92212RC4-3-137-2	56.3	61.0	59.6	61.6	60.0	57.6
30 B960457	56.3	59.7	58.0	60.8	60.0	55.4
31 B961160	57.1	60.4	59.3	62.1	60.1	58.2
32 B961416	57.4	60.3	59.5	62.4	63.1	58.3
33 OH 684	58.1	60.4	58.4	60.5	58.3	58.8
34 OH 687	58.0	60.2	56.8	61.6	59.3	56.6
35 G09139	56.6	58.0	56.6	61.5	59.4	57.6
36 G09093	57.2	59.3	58.6	60.9	59.9	57.1
37 G09107	57.7	59.6	58.1	61.9	60.6	58.1
38 G09108	58.5	59.8	57.2	60.8	60.7	59.2
39 IL95-4162	58.7	61.2	59.0	62.9	61.2	60.5
40 M97-1048	56.1	58.7	58.7	61.3	60.4	57.8
41 M97-1171	56.5	60.9	59.5	62.7	62.1	58.1
42 M97-1381	57.6	59.7	59.3	62.6	62.9	58.3
43 TW97613	54.8	60.8	59.8	62.9	61.9	57.3
44 TW005-008	57.3	61.3	57.4	61.5	62.5	56.8
LOCATION MEANS	57.4	60.3	58.9	61.1	60.8	57.9

TEST WEIGHT (lbs/bu)

	Clarksville MD	Columbia MO	Ithaca NY	Smithville OH	Wooster OH	Nairn ON
1 Caldwell	56.2	58.7	60.5	60.6	56.4	57.1
2 Foster	58.5	57.5	59.6	60.5	57.7	59.7
3 Patton	57.6	57.9	60.8	60.8	58.8	58.6
4 Roane	59.5	62.0	63.4	62.6	61.7	62.4
5 VA98W-593	57.1	62.0	63.2	62.9	61.8	62.8
6 IL94-1653	59.3	60.3	61.4	61.2	59.9	59.2
7 IL95-947	59.1	59.6	62.2	60.0	58.8	61.1
8 KY90C-292-4-1	54.8	57.9	62.1	60.6	60.7	59.8
9 KY90C-054-6	58.1	59.7	60.9	59.1	59.2	59.8
10 OH645	52.5	58.3	63.4	60.1	59.6	60.6
11 B950770	57.2	59.6	62.6	61.6	60.7	61.9
12 92145E8-7-7-1-9	58.4	55.7	57.9	57.2	54.3	56.0
13 AR839-27-1-3	59.2	59.6	62.9	60.8	61.0	60.9
14 AR584A-3-1-3	55.2	58.0	61.1	60.1	57.9	59.2
15 AR839-28-1-2	57.5	57.0	61.9	60.1	60.6	60.3
16 KY91C-171-24	55.5	59.6	62.1	62.6	61.2	61.5
17 Sunny (exp. name)	56.4	56.6	60.7	60.0	59.0	60.8
18 Honey (exp. name)	57.2	57.9	59.9	59.3	56.6	58.8
19 Zorro (exp. name)	55.1	59.2	59.8	61.0	60.5	59.5
20 VA97W-206	54.4	58.3	61.5	59.3	58.6	59.1
21 VA98W-591	55.7	58.5	61.9	62.8	61.3	62.2
22 VA99W-564	57.2	58.6	62.2	60.4	59.8	60.5
23 T123	59.4	57.7	63.4	59.5	59.2	60.4
24 T124	56.7	57.1	60.0	59.2	56.6	58.8
25 MO 960903	53.4	58.9	60.3	60.8	59.2	60.3
26 MO 980525	57.6	60.1	62.2	60.1	60.3	61.7
27 91202RB1-3-3-19	56.1	58.5	59.7	61.5	59.6	60.1
28 92201D5-2-29	55.9	60.1	59.1	61.6	60.3	62.1
29 92212RC4-3-137-2	57.0	60.0	60.8	60.6	58.4	60.3
30 B960457	59.1	55.9	60.6	58.1	57.4	59.3
31 B961160	57.9	56.9	61.5	60.8	59.6	62.1
32 B961416	58.4	58.7	61.2	60.9	60.5	61.4
33 OH 684	57.4	59.7	60.8	60.5	59.5	60.6
34 OH 687	56.7	57.1	61.6	59.6	58.7	59.5
35 G09139	56.5	58.5	61.6	59.1	57.0	60.1
36 G09093	57.0	57.9	60.6	59.2	57.6	59.7
37 G09107	56.1	58.7	61.4	59.8	57.2	60.2
38 G09108	56.4	60.2	61.3	60.2	58.4	59.1
39 IL95-4162	58.1	61.1	62.1	61.3	61.0	62.2
40 M97-1048	54.0	57.7	59.6	59.9	59.2	59.4
41 M97-1171	56.9	59.3	60.3	61.2	59.4	59.6
42 M97-1381	57.3	59.0	62.1	60.6	59.0	59.4
43 TW97613	54.8	58.5	62.4	61.3	58.9	60.9
44 TW005-008	56.0	58.0	62.6	60.6	60.0	62.2
LOCATION MEANS	56.8	58.7	61.3	60.5	59.2	60.3

TEST WEIGHT (lbs/bu)

	Ridgetown ON	Knoxville TN	Overton TX	Blacksburg VA	Warsaw VA	Arlington WI
1 Caldwell	60	56.2	57	55.8	53.4	55.6
2 Foster	61	52.4	60	56.0	55.1	56.4
3 Patton	61	53.2	59	56.4	55.3	55.4
4 Roane	64	57.6	60	58.5	58.8	58.7
5 VA98W-593	64	58.5	62	59.0	60.0	58.3
6 IL94-1653	62	54.2	59	57.2	57.2	56.9
7 IL95-947	62	48.4	58	56.4	54.0	57.7
8 KY90C-292-4-1	63	53.5	60	55.0	56.8	57.4
9 KY90C-054-6	62	51.6	59	56.4	56.9	56.7
10 OH645	62	48.7	59	56.4	59.5	57.8
11 B950770	64	56.9	62	58.5	59.1	58.2
12 92145E8-7-7-1-9	58		58	52.0	55.2	53.4
13 AR839-27-1-3	62	55.9	60	57.6	58.4	57.3
14 AR584A-3-1-3	62	53.1	61	55.5	55.4	56.6
15 AR839-28-1-2	62	57.5	61	57.1	57.9	56.8
16 KY91C-171-24	64	55.1	63	57.3	58.9	58.6
17 Sunny (exp. name)	63	51.3	58	55.8	56.0	56.3
18 Honey (exp. name)	61	55.5	59	55.3	54.7	54.8
19 Zorro (exp. name)	62	57.4	61	56.7	57.4	55.5
20 VA97W-206	62	52.6	59	55.8	57.8	55.8
21 VA98W-591	63	57.3	63	58.4	59.6	58.5
22 VA99W-564	63	54.1	62	57.4	58.3	57.4
23 T123	61	53.9	52	56.2	55.4	57.7
24 T124	59	51.0	57	55.8	55.2	56.2
25 MO 960903	61	54.7	59	56.2	57.0	57.4
26 MO 980525	63	56.2	59	57.9	57.4	58.3
27 91202RB1-3-3-19	62	54.4	62	58.1	56.0	56.1
28 92201D5-2-29	62	57.3	63	55.9	58.0	57.0
29 92212RC4-3-137-2	62	52.3	61	57.9	57.0	56.2
30 B960457	60	53.5	59	55.7	56.0	55.1
31 B961160	63	53.2	61	57.1	55.6	57.7
32 B961416	63	55.0	62	57.1	57.7	57.3
33 OH 684	62	58.2	61	55.7	56.9	56.6
34 OH 687	62	59.0	60	54.6	55.7	56.7
35 G09139	61	54.2	61	56.0	54.3	55.8
36 G09093	60	51.5	60	55.5	55.2	55.7
37 G09107	61	54.3	59	56.7	53.9	57.0
38 G09108	61	49.4	58	57.4	56.2	56.6
39 IL95-4162	63	57.0	61	58.4	58.1	59.0
40 M97-1048	61	53.8	60	55.5	56.1	56.1
41 M97-1171	62	56.8	62	56.3	55.7	56.7
42 M97-1381	61	56.1	62	56.2	57.2	56.7
43 TW97613	62	46.7	61	56.1	56.1	56.9
44 TW005-008	63	49.6	62	56.5	54.0	56.6
LOCATION MEANS	61.9	54.2	60.0	56.5	56.6	56.8

TEST WEIGHT (lbs/bu)

ENTRY MEANS ALL LOCATIONS

			rank
1	Caldwell	58.1	33
2	Foster	58.1	30
3	Patton	58.3	26
4	Roane	60.4	2
5	VA98W-593	60.9	1
6	IL94-1653	59.3	9
7	IL95-947	58.5	25
8	KY90C-292-4-1	58.8	19
9	KY90C-054-6	58.2	28
10	OH645	58.7	20
11	B950770	60.0	6
12	92145E8-7-7-1-9	55.8	44
13	AR839-27-1-3	59.2	10
14	AR584A-3-1-3	58.0	36
15	AR839-28-1-2	58.9	18
16	KY91C-171-24	60.4	3
17	Sunny (exp. name)	57.9	37
18	Honey (exp. name)	57.8	38
19	Zorro (exp. name)	59.0	17
20	VA97W-206	58.3	27
21	VA98W-591	60.1	5
22	VA99W-564	59.0	13
23	T123	57.1	42
24	T124	57.0	43
25	MO 960903	58.6	23
26	MO 980525	59.0	12
27	91202RB1-3-3-19	59.0	16
28	92201D5-2-29	59.5	7
29	92212RC4-3-137-2	58.7	21
30	B960457	57.5	41
31	B961160	59.0	14
32	B961416	59.5	8
33	OH 684	59.1	11
34	OH 687	58.2	29
35	G09139	57.6	40
36	G09093	57.8	39
37	G09107	58.1	31
38	G09108	58.0	34
39	IL95-4162	60.1	4
40	M97-1048	58.1	32
41	M97-1171	58.7	22
42	M97-1381	59.0	15
43	TW97613	58.0	35
44	TW005-008	58.5	24

LOCATION MEANS

KERNEL WEIGHT (grams)

	Bay AR	Nairn ON	Ridgetown ON
	100 kw	1000 kw	100 kw
1 Caldwell	2.8	31.5	2.9
2 Foster	2.8	36.0	3.5
3 Patton	3.0	42.0	4.1
4 Roane	2.9	34.8	3.4
5 VA98W-593	3.3	39.5	3.8
6 IL94-1653	2.8	34.8	3.5
7 IL95-947	2.9	36.0	3.6
8 KY90C-292-4-1	2.9	35.5	3.5
9 KY90C-054-6	2.9	40.0	3.8
10 OH645	2.9	35.8	3.6
11 B950770	2.8	37.5	3.4
12 92145E8-7-7-1-9	2.2	33.0	3.0
13 AR839-27-1-3	3.1	37.8	3.6
14 AR584A-3-1-3	3.0	38.5	3.7
15 AR839-28-1-2	2.9	33.8	3.4
16 KY91C-171-24	3.5	40.5	4.0
17 Sunny (exp. name)	3.4	44.0	4.2
18 Honey (exp. name)	2.9	37.5	3.8
19 Zorro (exp. name)	3.3	41.8	3.9
20 VA97W-206	2.7	34.0	3.2
21 VA98W-591	2.9	35.0	3.5
22 VA99W-564	2.5	37.5	3.7
23 T123	2.5	35.0	3.5
24 T124	2.9	37.8	3.7
25 MO 960903	2.7	37.3	3.7
26 MO 980525	2.6	36.0	3.7
27 91202RB1-3-3-19	2.6	35.0	3.8
28 92201D5-2-29	2.1	36.5	3.6
29 92212RC4-3-137-2	2.8	37.8	3.9
30 B960457	2.7	41.5	3.7
31 B961160	2.9	38.8	3.6
32 B961416	2.8	36.3	3.7
33 OH 684	3.2	40.3	4.0
34 OH 687	2.8	36.0	3.7
35 G09139	2.4	33.8	3.2
36 G09093	2.6	42.3	4.0
37 G09107	3.0	38.0	3.8
38 G09108	3.1	41.5	4.2
39 IL95-4162	2.9	33.5	3.5
40 M97-1048	3.2	41.3	4.1
41 M97-1171	3.7	36.3	3.7
42 M97-1381	3.0	33.3	3.4
43 TW97613	3.3	43.8	4.3
44 TW005-008	3.4	39.3	3.7
LOCATION MEANS	2.9	37.4	3.7

HEADING DATE (Julian)

		Bay AR	Keiser AR	Newark DE	Quincy FL	Griffin GA	Aberdeen ID
1	Caldwell	111	112	129	104		146.0
2	Foster	112	113	131	95		149.0
3	Patton	109	113	131	94	104	148.5
4	Roane	112	112	129	100	105	149.0
5	VA98W-593	111	114	128	89	105	146.0
6	IL94-1653	112	114	129	105		149.0
7	IL95-947	114	113	130	103		148.8
8	KY90C-292-4-1	111	113	128	88	109	148.5
9	KY90C-054-6	111	112	131	97	109	149.0
10	OH645	111	108	129	99	104	149.3
11	B950770	110	107	127	97	100	147.8
12	92145E8-7-7-1-9	109	114	128	90	102	145.5
13	AR839-27-1-3	115	114	131	94		151.8
14	AR584A-3-1-3	109	113	129	95	104	150.3
15	AR839-28-1-2	111	113	131	91	105	152.0
16	KY91C-171-24	111	118	128	96	108	148.8
17	Sunny (exp. name)	114	111	132	108		151.0
18	Honey (exp. name)	109	113	128	93	104	146.8
19	Zorro (exp. name)	109	113	125	99	103	146.3
20	VA97W-206	111	113	129	91	107	149.5
21	VA98W-591	112	114	130	90	106	146.0
22	VA99W-564	110	112	127	81	101	148.8
23	T123	123	126	134	106		150.3
24	T124	116	116	131	86		151.5
25	MO 960903	109	112	127	96	107	148.0
26	MO 980525	121	125	134	106		149.3
27	91202RB1-3-3-19	110	111	128	110		148.0
28	92201D5-2-29	109	110	127	105	101	147.3
29	92212RC4-3-137-2	110	112	129	82	104	149.8
30	B960457	111	113	128	87	106	150.0
31	B961160	110	114	128	95	105	148.8
32	B961416	108	111	126	95	101	147.8
33	OH 684	111	111	128	94	105	150.0
34	OH 687	112	111	128	91		149.0
35	G09139	109	108	125	82	104	148.5
36	G09093	111	113	128	100	109	147.5
37	G09107	111	113	127	97		147.5
38	G09108	123	122	125	105		148.3
39	IL95-4162	111	111	125	93		148.5
40	M97-1048	110	111	126	93		147.3
41	M97-1171	106	108	128	93	104	145.8
42	M97-1381	107	111	125	104	103	148.0
43	TW97613	113	113	129	94	108	149.8
44	TW005-008	112	119	131	103		151.0
LOCATION MEANS		111.5	113.2	128.6	95.8	104.8	148.6

HEADING DATE (Julian)

	Urbana IL	Greensburg IN	W. Lafayette IN	Wichita KS	Logan Co. KY	Baton Rouge LA
1 Caldwell	128.0	130	130	124	119	111
2 Foster	130.0	133	131	126	120	104
3 Patton	129.0	130	130	124	118	100
4 Roane	130.7	132	133	126	121	103
5 VA98W-593	129.0	131	132	126	119	95
6 IL94-1653	130.3	133	132	126	118	112
7 IL95-947	131.3	132	132	126	122	111
8 KY90C-292-4-1	129.7	131	131	125	118	97
9 KY90C-054-6	132.0	133	133	127	120	102
10 OH645	132.3	133	133	125	120	108
11 B950770	128.7	130	131	122	117	103
12 92145E8-7-7-1-9	127.0	130	129	124	118	96
13 AR839-27-1-3	134.3	134	136	129	122	98
14 AR584A-3-1-3	131.7	131	134	125	119	104
15 AR839-28-1-2	133.0	132	134	125	120	96
16 KY91C-171-24	129.3	131	131	126	121	112
17 Sunny (exp. name)	133.3	134	135	129	122	
18 Honey (exp. name)	129.0	130	130	124	118	103
19 Zorro (exp. name)	127.7	130	131	124	117	109
20 VA97W-206	131.3	133	132	125	119	97
21 VA98W-591	129.0	130	131	124	121	100
22 VA99W-564	127.7	129	131	125	118	92
23 T123	135.3	135	136	130	129	115
24 T124	133.7	133	135	127	121	98
25 MO 960903	129.3	129	130	124	118	108
26 MO 980525	135.0	135	136	129	126	111
27 91202RB1-3-3-19	129.3	130	130	124	118	111
28 92201D5-2-29	126.0	129	128	124	118	102
29 92212RC4-3-137-2	129.7	131	130	124	119	94
30 B960457	131.3	131	132	128	119	97
31 B961160	130.0	132	132	125	118	113
32 B961416	126.7	130	130	125	117	114
33 OH 684	129.7	130	131	125	119	96
34 OH 687	130.0	131	131	125	118	97
35 G09139	127.0	130	130	124	116	95
36 G09093	130.7	133	130	125	120	103
37 G09107	129.0	132	130	124	120	104
38 G09108	133.7	134	134	128	125	119
39 IL95-4162	128.7	131	130	122	119	99
40 M97-1048	128.3	131	130	124	118	108
41 M97-1171	126.7	131	129	124	117	101
42 M97-1381	129.0	131	130	125	117	
43 TW97613	129.3	133	130	125	121	102
44 TW005-008	133.7	133	135	127	120	113
LOCATION MEANS	130.1	131.5	131.6	125.3	119.5	103.6

HEADING DATE (Julian)

	Clarksville MD	Columbia MO	Lincoln NE	Ithaca NY	Smithville OH	Wooster OH
1 Caldwell	137.0	128.7	136	151	138.0	139
2 Foster	140.0	132.7	139	152	138.5	139
3 Patton	139.0	128.7	135	150	137.0	138
4 Roane	138.3	129.0	138	150	139.0	140
5 VA98W-593	136.3	131.3	138	150	138.0	139
6 IL94-1653	136.0	130.0	136	155	140.0	140
7 IL95-947	137.0	132.0	136	151	138.5	140
8 KY90C-292-4-1	140.7	130.3	138	152	138.0	140
9 KY90C-054-6	137.3	131.0	141	154	139.5	142
10 OH645	141.0	131.0	137	155	140.0	141
11 B950770	137.7	130.0	138	151	137.5	139
12 92145E8-7-7-1-9	139.0	127.7	136	150	137.0	139
13 AR839-27-1-3	136.0	133.3	138	156	141.0	143
14 AR584A-3-1-3	139.0	133.3	139	153	138.5	140
15 AR839-28-1-2	139.0	131.3	138	155	140.0	141
16 KY91C-171-24	140.0	130.0	137	152	138.0	139
17 Sunny (exp. name)	138.0	134.7	137	153	141.0	140
18 Honey (exp. name)	139.3	129.0	136	150	138.0	139
19 Zorro (exp. name)	138.7	127.0	136	150	137.0	138
20 VA97W-206	138.7	130.7	140	154	139.0	141
21 VA98W-591	139.3	130.7	139	152	138.0	140
22 VA99W-564	137.7	128.0	139	151	138.0	140
23 T123	139.0	138.0	141	155	142.0	144
24 T124	139.0	132.0	138	156	140.5	142
25 MO 960903	135.3	128.3	139	150	138.5	139
26 MO 980525	137.0	135.0	143	155	140.0	142
27 91202RB1-3-3-19	138.7	129.7	135	150	137.5	139
28 92201D5-2-29	139.3	125.7	138	150	138.0	139
29 92212RC4-3-137-2	138.3	129.7	140	151	138.0	140
30 B960457	137.3	131.0	138	156	140.0	141
31 B961160	138.0	132.3	141	155	138.5	140
32 B961416	135.0	128.3	141	151	138.0	138
33 OH 684	137.3	129.0	137	154	138.5	139
34 OH 687	138.7	131.7	137	152	138.0	140
35 G09139	139.0	129.0	136	150	136.5	138
36 G09093	138.0	131.0	137	151	138.0	139
37 G09107	138.3	130.7	137	150	138.5	139
38 G09108	136.3	132.7	137	151	142.0	142
39 IL95-4162	138.7	127.7	137	153	138.0	139
40 M97-1048	139.0	129.7	138	151	137.0	138
41 M97-1171	137.0	126.7	136	149	136.5	136
42 M97-1381	137.0	127.3	136	151	138.0	135
43 TW97613	139.3	130.7	141	151	139.0	140
44 TW005-008	138.3	132.7	142	155	139.5	143
LOCATION MEANS	138.2	130.4	138.0	152.1	138.6	139.8

HEADING DATE (Julian)

	Nairn ON	Ridgetown ON	Knoxville TN	Overton TX	Blacksburg VA	Warsaw VA
1 Caldwell	146.3	146	126	99	127	123
2 Foster	147.3	148	124	99	129	126
3 Patton	146.0	145	123	97	126	122
4 Roane	147.7	149	123	97	127	124
5 VA98W-593	146.7	147	123	96	125	122
6 IL94-1653	148.3	149	123	100	127	124
7 IL95-947	149.7	148	125	100	130	125
8 KY90C-292-4-1	147.7	147	124	96	125	120
9 KY90C-054-6	149.7	150	125	98	129	123
10 OH645	148.3	151	125	98	130	123
11 B950770	146.3	147	122	95	125	123
12 92145E8-7-7-1-9	146.0	145	122	96	124	120
13 AR839-27-1-3	154.0	153	127	100	132	126
14 AR584A-3-1-3	150.0	150	124	95	126	123
15 AR839-28-1-2	152.3	152	125	97	130	124
16 KY91C-171-24	147.0	148	125	96	126	122
17 Sunny (exp. name)	150.3	153	126	100	130	127
18 Honey (exp. name)	146.0	147	121	96	126	121
19 Zorro (exp. name)	145.3	146	122	96	124	123
20 VA97W-206	148.7	151	125	96	129	123
21 VA98W-591	146.0	146	124	96	127	123
22 VA99W-564	146.3	146	122	95	125	121
23 T123	150.7	154	133	110	135	128
24 T124	149.7	153	125	100	131	126
25 MO 960903	146.7	147	124	96	125	123
26 MO 980525	151.0	151	132	108	132	128
27 91202RB1-3-3-19	150.0	146	123	96	126	121
28 92201D5-2-29	150.7	147	121	95	124	122
29 92212RC4-3-137-2	150.7	149	123	96	126	120
30 B960457	148.7	149	124	97	128	123
31 B961160	147.7	149	123	96	128	123
32 B961416	146.7	148	122	95	125	121
33 OH 684	149.3	150	123	96	129	122
34 OH 687	148.0	148	124	99	126	122
35 G09139	146.3	146	120	95	124	120
36 G09093	146.7	149	124	96	126	123
37 G09107	147.0	147	123	96	127	124
38 G09108	148.0	148	130	107	131	127
39 IL95-4162	149.0	147	123	96	126	122
40 M97-1048	146.3	145	124	96	124	119
41 M97-1171	145.3	145	120	95	123	118
42 M97-1381	146.7	146	121	96	126	121
43 TW97613	147.7	149	126	96	127	123
44 TW005-008	151.3	152	124	101	132	124
LOCATION MEANS	148.2	148.4	124.0	97.6	127.3	122.9

HEADING DATE (Julian)

ENTRY MEANS ALL LOCATIONS

			rank
1	Caldwell	127.9	31
2	Foster	128.6	35
3	Patton	125.7	10
4	Roane	127.3	24
5	VA98W-593	125.7	11
6	IL94-1653	129.1	36
7	IL95-947	129.4	37
8	KY90C-292-4-1	126.2	13
9	KY90C-054-6	128.1	34
10	OH645	128.0	33
11	B950770	125.5	5
12	92145E8-7-7-1-9	124.8	4
13	AR839-27-1-3	130.4	39
14	AR584A-3-1-3	127.3	25
15	AR839-28-1-2	127.8	30
16	KY91C-171-24	127.5	28
17	Sunny (exp. name)	131.8	42
18	Honey (exp. name)	125.7	7
19	Zorro (exp. name)	125.7	9
20	VA97W-206	127.2	22
21	VA98W-591	126.4	16
22	VA99W-564	124.6	3
23	T123	134.3	44
24	T124	129.6	38
25	MO 960903	126.2	14
26	MO 980525	133.1	43
27	91202RB1-3-3-19	127.9	32
28	92201D5-2-29	125.7	6
29	92212RC4-3-137-2	125.7	8
30	B960457	126.9	20
31	B961160	127.6	29
32	B961416	125.8	12
33	OH 684	126.4	15
34	OH 687	127.3	23
35	G09139	124.1	1
36	G09093	127.0	21
37	G09107	127.5	27
38	G09108	131.7	41
39	IL95-4162	126.7	19
40	M97-1048	126.7	18
41	M97-1171	124.2	2
42	M97-1381	126.6	17
43	TW97613	127.4	26
44	TW005-008	131.0	40

LOCATION MEANS

HEIGHT (inches)

		Bay AR	Keiser AR	Newark DE	Quincy FL	Griffin GA	Aberdeen ID
1	Caldwell	35	32	31	39	33	30.8
2	Foster	33	29	32	40	33	27.0
3	Patton	33	30	28	39	36	31.3
4	Roane	30	26	30	34	30	25.3
5	VA98W-593	29	27	29	36	31	26.0
6	IL94-1653	33	30	32	41	30	29.3
7	IL95-947	34	32	33	42	36	34.3
8	KY90C-292-4-1	30	26	28	39	30	25.5
9	KY90C-054-6	34	29	32	42	38	31.5
10	OH645	33	29	33	41	38	29.3
11	B950770	31	25	28	40	35	26.3
12	92145E8-7-7-1-9	29	24	29	35	29	23.5
13	AR839-27-1-3	35	30	31	42	30	29.8
14	AR584A-3-1-3	33	27	30	37	31	26.8
15	AR839-28-1-2	34	30	31	38	32	30.3
16	KY91C-171-24	34	28	31	40	29	30.8
17	Sunny (exp. name)	34	31	30	36	32	26.5
18	Honey (exp. name)	32	28	30	35	32	30.5
19	Zorro (exp. name)	32	26	32	38	33	24.3
20	VA97W-206	33	27	30	37	30	26.0
21	VA98W-591	31	27	27	36	32	24.3
22	VA99W-564	32	27	30	34	35	27.0
23	T123	30	29	30	37	35	26.3
24	T124	29	28	30	36	28	30.8
25	MO 960903	35	34	34	44	37	33.0
26	MO 980525	34	33	32	40	38	29.8
27	91202RB1-3-3-19	32	28	30	38	31	26.8
28	92201D5-2-29	30	28	29	40	32	25.5
29	92212RC4-3-137-2	36	32	32	38	37	33.3
30	B960457	33	32	33	41	40	32.5
31	B961160	32	30	31	38	36	26.0
32	B961416	31	25	29	36	35	26.5
33	OH 684	34	30	34	38	36	31.8
34	OH 687	31	27	31	37	30	27.8
35	G09139	30	25	29	35	30	28.5
36	G09093	35	32	30	42	39	32.0
37	G09107	34	31	33	42	37	32.3
38	G09108	36	34	34	43	39	33.8
39	IL95-4162	34	32	34	40	34	31.5
40	M97-1048	32	27	33	39	34	30.3
41	M97-1171	33	27	28	37	28	22.8
42	M97-1381	34	32	31	35	32	30.0
43	TW97613	37	31	33	36	33	32.8
44	TW005-008	34	31	32	29	37	34.0
LOCATION MEANS		32.7	29.0	30.9	38.2	33.5	28.9

HEIGHT (inches)

	Brownstown IL	Urbana IL	W. Lafayette IN	Wichita KS	Logan Co. KY	Clarksville MD
1 Caldwell	30.3	33.0	34	28	35	31.7
2 Foster	29.7	30.7	30	30	35	34.7
3 Patton	29.7	32.3	31	27	36	32.3
4 Roane	25.3	27.0	28	23	33	33.0
5 VA98W-593	27.0	28.0	28	21	32	32.3
6 IL94-1653	30.0	33.0	34	27	36	29.0
7 IL95-947	33.3	35.0	36	31	36	36.0
8 KY90C-292-4-1	28.0	29.3	30	26	33	36.3
9 KY90C-054-6	31.0	33.7	34	33	32	29.0
10 OH645	28.7	32.7	33	30	33	31.7
11 B950770	25.3	28.0	30	26	30	35.3
12 92145E8-7-7-1-9	26.3	27.7	29	20	28	31.3
13 AR839-27-1-3	33.0	32.0	34	35	38	32.0
14 AR584A-3-1-3	28.7	28.3	32	28	28	35.3
15 AR839-28-1-2	31.0	32.0	34	29	38	33.3
16 KY91C-171-24	29.0	30.3	31	26	34	31.7
17 Sunny (exp. name)	27.0	31.0	32	28	36	37.3
18 Honey (exp. name)	29.0	31.0	32	26	33	34.7
19 Zorro (exp. name)	29.3	29.7	32	28	34	36.7
20 VA97W-206	27.3	28.3	31	28	32	37.0
21 VA98W-591	24.3	27.7	28	25	32	32.3
22 VA99W-564	23.7	28.0	30	25	30	33.0
23 T123	25.7	29.0	30	28	32	32.0
24 T124	28.7	31.0	32	29	34	35.7
25 MO 960903	32.3	35.0	36	29	35	28.0
26 MO 980525	30.3	33.0	33	30	38	35.0
27 91202RB1-3-3-19	27.0	30.0	29	26	36	32.3
28 92201D5-2-29	27.0	28.0	32	26	35	40.0
29 92212RC4-3-137-2	32.0	33.3	33	30	38	37.3
30 B960457	30.3	33.3	34	25	35	28.7
31 B961160	24.3	28.7	29	30	34	28.7
32 B961416	24.7	24.7	27	23	33	29.7
33 OH 684	30.0	32.7	32	30	34	29.7
34 OH 687	28.3	30.0	30	28	35	34.7
35 G09139	25.7	28.3	29	25	27	34.0
36 G09093	34.0	35.7	35	31	35	35.4
37 G09107	31.0	34.0	34	30	35	29.7
38 G09108	33.7	36.3	34	33	41	29.3
39 IL95-4162	31.3	34.7	34	29	34	38.7
40 M97-1048	31.7	32.7	34	27	35	36.7
41 M97-1171	26.7	29.3	29	25	32	34.7
42 M97-1381	29.7	32.7	33	25	35	28.7
43 TW97613	30.0	32.3	34	26	33	35.7
44 TW005-008	27.3	32.0	33	32	33	34.0
LOCATION MEANS	28.8	31.0	31.8	27.7	33.9	33.3

HEIGHT (inches)

	Columbia MO	Lincoln NE	Ithaca NY	Smithville OH	Wooster OH	Nairn ON
1 Caldwell	38	32	30.5	40.5	39.8	34.8
2 Foster	34	31	26.6	37.0	39.8	34.8
3 Patton	34	34	28.5	39.0	39.4	35.4
4 Roane	34	27	23.6	38.0	35.9	32.9
5 VA98W-593	32	27	25.6	35.5	35.9	31.9
6 IL94-1653	37	36	26.6	41.0	40.6	34.4
7 IL95-947	36	34	29.5	41.5	42.9	35.6
8 KY90C-292-4-1	33	27	22.6	38.0	39.8	36.6
9 KY90C-054-6	40	33	28.5	42.0	42.9	38.2
10 OH645	36	30	30.5	40.5	40.6	37.2
11 B950770	33	27	24.6	35.5	36.6	31.7
12 92145E8-7-7-1-9	31	26	21.7	33.0	32.3	28.3
13 AR839-27-1-3	38	35	28.5	41.0	41.8	37.4
14 AR584A-3-1-3	37	29	27.6	40.5	40.6	34.4
15 AR839-28-1-2	37	30	27.6	39.5	42.2	34.1
16 KY91C-171-24	35	31	26.6	36.5	38.6	37.4
17 Sunny (exp. name)	34	32	25.6	40.0	38.6	36.0
18 Honey (exp. name)	34	31	27.6	38.5	39.0	34.8
19 Zorro (exp. name)	38	31	25.6	37.5	41.8	35.8
20 VA97W-206	36	29	23.6	35.5	39.8	32.5
21 VA98W-591	33	27	24.6	35.0	35.9	31.3
22 VA99W-564	34	24	26.6	34.5	37.8	32.1
23 T123	37	34	25.6	36.0	37.4	33.1
24 T124	35	34	24.6	35.0	39.4	35.0
25 MO 960903	35	34	28.5	41.5	44.1	38.0
26 MO 980525	37	36	29.5	40.0	41.4	36.6
27 91202RB1-3-3-19	32	30	23.6	36.0	38.2	26.6
28 92201D5-2-29	33	32	23.6	34.5	33.5	26.8
29 92212RC4-3-137-2	38	31	27.6	37.5	40.2	30.9
30 B960457	39	33	30.5	40.5	42.2	36.8
31 B961160	34	28	27.6	36.0	39.4	33.7
32 B961416	31	23	22.6	32.0	34.3	27.4
33 OH 684	37	32	28.5	36.5	41.0	35.0
34 OH 687	35	31	26.6	35.0	39.8	34.8
35 G09139	32	25	25.6	31.5	33.1	30.1
36 G09093	37	36	30.5	39.0	43.3	37.8
37 G09107	34	34	28.5	38.5	41.0	36.6
38 G09108	42	34	32.5	40.5	42.2	39.2
39 IL95-4162	40	33	29.5	38.5	39.8	34.8
40 M97-1048	33	32	27.6	38.0	39.4	36.6
41 M97-1171	34	29	21.7	33.0	35.5	31.5
42 M97-1381	35	29	27.6	36.5	39.0	35.0
43 TW97613	38	30	30.5	40.0	40.6	34.8
44 TW005-008	35	31	27.6	39.5	39.0	37.0
LOCATION MEANS	35.4	30.8	26.9	37.6	39.2	34.2

HEIGHT (inches)

	Ridgetown ON	Overton TX	Blacksburg VA	Warsaw VA	Arlington WI
1 Caldwell	40	33	29	33	36.0
2 Foster	40	34	26	37	37.0
3 Patton	39	33	28	35	35.5
4 Roane	37	30	27	32	35.0
5 VA98W-593	36	29	26	31	31.0
6 IL94-1653	41	32	29	36	38.0
7 IL95-947	43	34	30	35	38.0
8 KY90C-292-4-1	37	32	26	33	32.0
9 KY90C-054-6	43	37	29	37	40.0
10 OH645	42	31	31	37	36.0
11 B950770	36	34	27	31	34.0
12 92145E8-7-7-1-9	33	30	26	32	29.0
13 AR839-27-1-3	42	33	31	39	38.5
14 AR584A-3-1-3	40	33	28	32	35.5
15 AR839-28-1-2	38	32	29	38	35.5
16 KY91C-171-24	36	32	26	36	33.5
17 Sunny (exp. name)	37	32	28	35	35.5
18 Honey (exp. name)	37	30	27	35	37.0
19 Zorro (exp. name)	34	32	28	35	32.5
20 VA97W-206	34	30	27	33	34.0
21 VA98W-591	35	32	27	29	32.5
22 VA99W-564	38	35	28	30	35.0
23 T123	36	32	28	35	34.0
24 T124	37	31	26	35	35.5
25 MO 960903	42	35	30	36	39.5
26 MO 980525	41	35	32	38	40.0
27 91202RB1-3-3-19	35	28	27	34	31.5
28 92201D5-2-29	35	30	28	32	32.0
29 92212RC4-3-137-2	40	33	29	34	36.0
30 B960457	40	35	31	35	37.5
31 B961160	36	34	27	33	35.0
32 B961416	34	32	25	31	32.0
33 OH 684	38	34	28	35	37.5
34 OH 687	39	30	28	34	34.0
35 G09139	34	30	25	31	31.0
36 G09093	43	36	28	37	35.0
37 G09107	42	33	28	34	38.5
38 G09108	44	36	33	37	40.0
39 IL95-4162	40	35	30	36	38.0
40 M97-1048	40	34	28	36	36.5
41 M97-1171	35	31	26	34	30.5
42 M97-1381	38	33	28	33	34.0
43 TW97613	42	37	29	36	35.0
44 TW005-008	41	31	28	33	38.0
LOCATION MEANS	38.4	32.6	28.1	34.3	35.3

HEIGHT (inches)

ENTRY MEANS ALL LOCATIONS

			rank
1	Caldwell	33.9	14
2	Foster	33.1	21
3	Patton	33.3	20
4	Roane	30.3	38
5	VA98W-593	29.9	41
6	IL94-1653	33.7	15
7	IL95-947	35.6	3
8	KY90C-292-4-1	31.2	33
9	KY90C-054-6	35.2	6
10	OH645	34.1	13
11	B950770	30.9	35
12	92145E8-7-7-1-9	28.4	44
13	AR839-27-1-3	35.1	7
14	AR584A-3-1-3	32.3	27
15	AR839-28-1-2	33.7	16
16	KY91C-171-24	32.3	26
17	Sunny (exp. name)	32.8	22
18	Honey (exp. name)	32.4	25
19	Zorro (exp. name)	32.4	24
20	VA97W-206	31.4	32
21	VA98W-591	29.9	40
22	VA99W-564	30.9	36
23	T123	31.8	30
24	T124	32.2	28
25	MO 960903	35.5	4
26	MO 980525	35.3	5
27	91202RB1-3-3-19	30.8	37
28	92201D5-2-29	31.0	34
29	92212RC4-3-137-2	34.3	11
30	B960457	34.7	9
31	B961160	31.8	31
32	B961416	29.1	43
33	OH 684	33.7	17
34	OH 687	32.0	29
35	G09139	29.3	42
36	G09093	35.6	2
37	G09107	34.4	10
38	G09108	36.8	1
39	IL95-4162	34.9	8
40	M97-1048	33.6	18
41	M97-1171	30.2	39
42	M97-1381	32.4	23
43	TW97613	34.2	12
44	TW005-008	33.4	19

LOCATION MEANS

LODGING

		Bay AR	Keiser AR	Newark DE	Quincy FL	Griffin GA	Greensburg IN
		0-9	0-9	0-9	0-9		1-9
1	Caldwell	1.7	1	0	3.5		1.5
2	Foster	1.0	0	0	1.0		1.0
3	Patton	1.3	0	0	2.5		3.0
4	Roane	1.0	0	0	7.0		1.5
5	VA98W-593	1.0	0	0	3.0	5	1.5
6	IL94-1653	1.0	1	0	2.5		2.5
7	IL95-947	1.3	1	0	0.5	5	4.3
8	KY90C-292-4-1	1.3	0	0	1.5		1.5
9	KY90C-054-6	1.3	0	0	0.5		1.5
10	OH645	1.0	0	0	0.0		1.0
11	B950770	2.3	0	0	1.0	5	3.0
12	92145E8-7-7-1-9	1.0	0	0	0.0		1.0
13	AR839-27-1-3	1.0	0	0	1.5		1.0
14	AR584A-3-1-3	3.0	1	0	4.5		4.3
15	AR839-28-1-2	1.0	0	0	0.5		1.0
16	KY91C-171-24	1.0	0	0	0.0		1.0
17	Sunny (exp. name)	1.0	0	0	0.0		1.0
18	Honey (exp. name)	1.0	0	0	0.0		3.0
19	Zorro (exp. name)	1.0	0	0	1.0		1.5
20	VA97W-206	1.3	0	0	1.5		2.8
21	VA98W-591	1.0	0	0	0.5		1.0
22	VA99W-564	1.0	0	0	1.5	5	1.5
23	T123	1.0	0	0	1.5		1.0
24	T124	1.0	0	0	2.0		1.5
25	MO 960903	1.3	0	0	4.5	5	2.5
26	MO 980525	1.0	1	0	0.0		1.3
27	91202RB1-3-3-19	1.0	0	0	0.0		2.0
28	92201D5-2-29	1.0	0	0	0.0		1.0
29	92212RC4-3-137-2	1.7	0	0	2.0		1.0
30	B960457	1.0	0	0	5.0	10	2.0
31	B961160	1.3	0	0	1.0	0	1.3
32	B961416	1.0	0	0	1.0	5	2.3
33	OH 684	1.0	0	0	1.5		1.0
34	OH 687	1.0	0	0	2.0		1.0
35	G09139	1.0	0	0	0.5		1.8
36	G09093	1.0	0	0	2.5		3.0
37	G09107	1.0	0	0	0.5		2.5
38	G09108	1.0	1	0	1.0	5	2.0
39	IL95-4162	1.3	0	0	1.0		4.0
40	M97-1048	2.3	1	0	3.0		2.0
41	M97-1171	1.0	0	0	0.0		1.0
42	M97-1381	1.0	0	0	0.5		1.5
43	TW97613	1.0	1	0	0.0		2.0
44	TW005-008	1.0	1	0	3.0		6.5
LOCATION MEANS		1.2	0.2	0.0	1.5		1.9
GROWTH STAGE / DATE					5/8/01		

LODGING

	W. Lafayette IN	Logan Co. KY	Clarksville MD	Columbia MO	Smithville OH	Wooster OH
	0-9	0-9	0-9	0-9	0-9	1-5
1 Caldwell	3.5	0	4.0	2.7	1.5	1
2 Foster	3.8	4	3.0	0.0	1.5	1
3 Patton	3.8	9	1.7	1.0	2.5	1
4 Roane	2.8	0	1.3	1.0	3.5	1
5 VA98W-593	3.0	6	4.3	0.0	3.5	1
6 IL94-1653	3.8	3	5.7	2.3	3.5	1
7 IL95-947	4.0	6	3.0	1.3	8.0	1
8 KY90C-292-4-1	3.3	7	0.0	0.0	6.5	1
9 KY90C-054-6	4.5	4	2.0	0.7	7.5	1
10 OH645	3.0	9	0.0	0.0	2.5	1
11 B950770	4.3	9	0.0	1.7	1.5	1
12 92145E8-7-7-1-9	2.0	5	0.0	0.0	1.0	1
13 AR839-27-1-3	3.5	0	2.7	0.0	5.0	1
14 AR584A-3-1-3	4.3	9	3.0	1.7	6.0	1
15 AR839-28-1-2	3.5	0	1.0	0.0	6.0	1
16 KY91C-171-24	3.5	5	0.0	0.0	1.0	1
17 Sunny (exp. name)	3.3	0	0.7	0.0	1.5	1
18 Honey (exp. name)	4.3	1	1.7	1.7	0.5	1
19 Zorro (exp. name)	3.0	9	0.0	0.3	0.5	1
20 VA97W-206	3.5	4	0.0	0.7	0.0	1
21 VA98W-591	2.5	9	0.0	0.3	0.5	1
22 VA99W-564	4.5	9	0.0	0.3	0.0	1
23 T123	4.0	5	6.0	0.0	0.5	1
24 T124	3.0	0	0.0	0.0	1.5	1
25 MO 960903	6.3	0	1.7	2.3	0.0	1
26 MO 980525	3.0	0	0.0	0.3	2.0	1
27 91202RB1-3-3-19	3.8	0	0.0	0.0	1.5	1
28 92201D5-2-29	2.3	1	1.0	0.3	1.0	1
29 92212RC4-3-137-2	2.3	4	1.0	0.0	0.5	1
30 B960457	3.5	4	3.0	1.3	2.5	1
31 B961160	4.5	5	3.3	0.7	1.0	1
32 B961416	5.5	8	1.0	1.7	0.0	1
33 OH 684	2.8	0	0.0	0.3	2.0	1
34 OH 687	3.5	5	0.0	0.0	1.5	1
35 G09139	5.5	0	0.0	1.3	0.0	1
36 G09093	3.8	4	2.0	1.3	0.0	1
37 G09107	4.3	0	1.0	1.7	4.5	1
38 G09108	3.5	1	4.0	0.0	1.5	1
39 IL95-4162	3.8	4	5.0	2.0	2.5	1
40 M97-1048	3.8	5	1.3	1.3	0.5	1
41 M97-1171	3.5	0	0.0	0.7	1.5	1
42 M97-1381	4.3	0	2.0	2.3	0.0	1
43 TW97613	3.5	0	0.6	1.0	2.5	1
44 TW005-008	4.5	5	5.3	1.7	1.5	1
LOCATION MEANS	3.7	3.6	1.6	0.8	2.1	1.0
GROWTH STAGE / DATE	6/15/01					

LODGING

	Ridgetown ON	Blacksburg VA	Warsaw VA	Warsaw VA	Arlington WI
	0-9	0.2-10	0-9	0.2-10	0-9
1 Caldwell	0.0	0.6	4	8.0	2
2 Foster	0.0	0.3	1	5.6	0.2
3 Patton	0.0	1.3	2	5.6	0.2
4 Roane	0.3	1.2	0	5.6	0.2
5 VA98W-593	0.0	0.3	2	5.6	0.2
6 IL94-1653	0.0	4.0	1	8.0	1.7
7 IL95-947	0.0	0.9	0	9.0	1.5
8 KY90C-292-4-1	0.0	0.2	0	8.0	0.2
9 KY90C-054-6	0.5	1.7	0	6.4	0.2
10 OH645	0.0	0.2	0	3.0	0.2
11 B950770	0.0	1.5	0	8.0	0.2
12 92145E8-7-7-1-9	0.0	0.2	0	7.0	0.2
13 AR839-27-1-3	0.0	0.5	0	2.4	0.2
14 AR584A-3-1-3	0.5	6.7	6	8.0	0.9
15 AR839-28-1-2	0.0	0.2	0	2.4	0.2
16 KY91C-171-24	0.0	0.2	0	3.6	0.2
17 Sunny (exp. name)	0.0	0.2	0	4.2	0.2
18 Honey (exp. name)	0.0	0.2	1	8.0	2.8
19 Zorro (exp. name)	0.0	0.2	4	6.4	0.2
20 VA97W-206	0.0	0.3	0	7.2	1.3
21 VA98W-591	0.0	0.2	1	8.0	0.2
22 VA99W-564	0.0	0.2	1	5.6	0.7
23 T123	0.0	4.7	3	5.6	0.2
24 T124	0.0	0.2	0	6.4	0.2
25 MO 960903	0.0	0.2	2	6.4	0.2
26 MO 980525	0.0	0.5	0	6.4	0.2
27 91202RB1-3-3-19	0.0	0.2	0	4.0	0.2
28 92201D5-2-29	0.0	0.2	0	5.6	0.2
29 92212RC4-3-137-2	0.0	0.2	0	6.4	0.2
30 B960457	0.3	2.8	2	8.0	0.2
31 B961160	0.0	1.8	0	7.0	0.2
32 B961416	0.3	1.0	1	7.0	0.2
33 OH 684	0.0	0.2	0	3.6	0.2
34 OH 687	0.0	0.2	0	5.6	0.2
35 G09139	0.3	0.2	0	5.6	0.2
36 G09093	0.5	0.7	0	4.8	2.1
37 G09107	1.0	0.4	0	6.4	0.2
38 G09108	0.0	2.4	0	2.4	0.2
39 IL95-4162	0.0	2.4	2	5.6	1.5
40 M97-1048	0.0	0.2	4	5.6	0.2
41 M97-1171	0.0	0.2	0	7.0	0.2
42 M97-1381	0.0	2.5	0	4.8	0.2
43 TW97613	0.3	1.1	0	4.0	0.2
44 TW005-008	0.0	2.9	4	8.0	2.5
LOCATION MEANS	0.1	1.1	0.9	6.0	0.5
GROWTH STAGE / DATE			5/16/01	prior to harvest	

WINTER KILL

	Bay AR	Urbana IL	W. Lafayette IN	Woodburn IN	Logan Co. KY	Columbia MO
	1-9	survival 0-9	0-9	0-9	survival %	survival %
1 Caldwell	3.3	6.0	0	2	100	63
2 Foster	3.3	8.0	0	3	100	29
3 Patton	2.0	4.5	0	2	100	49
4 Roane	3.0	1.5	0	3	100	86
5 VA98W-593	3.7	4.0	0	2	100	41
6 IL94-1653	3.3	8.5	0	1	100	53
7 IL95-947	2.7	8.0	0	2	100	31
8 KY90C-292-4-1	3.0	8.0	0	1	100	34
9 KY90C-054-6	3.7	5.0	0	3	100	53
10 OH645	3.3	8.5	0	4	100	13
11 B950770	4.0	4.5	0	4	100	36
12 92145E8-7-7-1-9	3.0	6.0	0	2	100	45
13 AR839-27-1-3	2.3	8.0	0	2	100	36
14 AR584A-3-1-3	2.0	4.0	0	3	100	22
15 AR839-28-1-2	2.3	5.0	0	2	100	44
16 KY91C-171-24	3.0	5.0	0	3	100	60
17 Sunny (exp. name)	3.7	8.0	0	3	100	24
18 Honey (exp. name)	3.3	9.0	0	3	100	49
19 Zorro (exp. name)	3.0	9.0	0	2	100	58
20 VA97W-206	3.7	3.5	0	3	100	55
21 VA98W-591	3.3	6.5	0	4	100	38
22 VA99W-564	2.7	2.0	0	4	100	42
23 T123	4.0	7.5	0	5	100	54
24 T124	3.0	7.0	0	3	100	38
25 MO 960903	3.0	7.5	0	2	100	63
26 MO 980525	3.3	8.5	0	2	100	68
27 91202RB1-3-3-19	3.3	2.0	0	3	100	33
28 92201D5-2-29	4.0	4.5	0	2	100	66
29 92212RC4-3-137-2	4.0	4.0	0	2	100	44
30 B960457	3.3	5.5	0	3	100	78
31 B961160	3.7	1.5	0	3	100	22
32 B961416	3.3	2.0	0	3	100	53
33 OH 684	4.0	5.0	0	4	100	52
34 OH 687	3.0	8.0	0	4	100	39
35 G09139	3.7	5.0	0	5	100	43
36 G09093	3.0	8.5	0	2	100	27
37 G09107	3.0	7.5	0	2	100	33
38 G09108	4.3	8.5	0	2	100	73
39 IL95-4162	3.7	8.5	0	3	100	61
40 M97-1048	3.0	6.5	0	2	100	42
41 M97-1171	3.0	8.0	0	3	100	71
42 M97-1381	3.0	6.5	0	2	100	63
43 TW97613	5.0	5.0	0	1	100	48
44 TW005-008	2.0	5.0	0	3	100	28
LOCATION MEANS	3.3	6.0	0.0	2.7	100.0	46.8
GROWTH STAGE / DATE				3/7/01		

WINTER KILL

	Lincoln NE	Nairn ON	Blacksburg VA	Arlington WI
	0-9	survival %	freeze damage	0-9
1 Caldwell	8	70.0		0
2 Foster	7	82.0	*	0
3 Patton	9	71.7		0
4 Roane	5	86.7		0
5 VA98W-593	5	90.7		0
6 IL94-1653	9	79.3		0
7 IL95-947	9	51.7		0
8 KY90C-292-4-1	7	56.7	***	0
9 KY90C-054-6	5	70.0		0
10 OH645	9	71.3		0
11 B950770	3	85.0	**	0
12 92145E8-7-7-1-9	8	61.7	***	0
13 AR839-27-1-3	9	61.7		0
14 AR584A-3-1-3	7	41.7	*	0
15 AR839-28-1-2	9	46.7		0
16 KY91C-171-24	8	75.0	***	0
17 Sunny (exp. name)	9	90.7		0
18 Honey (exp. name)	8	85.0		0
19 Zorro (exp. name)	9	61.7		0
20 VA97W-206	7	86.0		0
21 VA98W-591	6	91.3		0
22 VA99W-564	3	80.7	***	0
23 T123	9	94.0		0
24 T124	9	83.3		0
25 MO 960903	4	80.3	**	0
26 MO 980525	8	70.0		0
27 91202RB1-3-3-19	9	31.7		0
28 92201D5-2-29	3	16.7	**	0
29 92212RC4-3-137-2	4	20.0		0
30 B960457	7	36.7		0
31 B961160	3	48.3		0
32 B961416	2	45.0		0
33 OH 684	8	80.0		0
34 OH 687	8	78.3		0
35 G09139	7	66.0	*	0
36 G09093	8	75.0	***	0
37 G09107	8	51.7		0
38 G09108	8	46.7		0
39 IL95-4162	8	51.7		0
40 M97-1048	8	74.0	***	0
41 M97-1171	8	74.3	***	0
42 M97-1381	7	83.3	*	0
43 TW97613	2	61.7	***	0
44 TW005-008	8	73.0		0
LOCATION MEANS	6.9	66.8		0.0
GROWTH STAGE / DATE			May	

LEAF RUST

	Fayetteville AR	Kibler AR	Logan Co. KY	Blacksburg VA	Blacksburg VA	Blacksburg VA
	%	%		MCRQ	TLGG	0-9
1 Caldwell	11	4	5	3S	3S	0
2 Foster	19	4	2	;2	0;	4
3 Patton	9	4	T	;12	0;	0
4 Roane	4	4	T	23	23;	0
5 VA98W-593	15	33	0	0;	0;	0
6 IL94-1653	15	7	-	3S	23	0
7 IL95-947	2	5	0	23	2l	0
8 KY90C-292-4-1	60	40	10	3S	23	5
9 KY90C-054-6	30	8	T	3S	0;	3
10 OH645	8	15	5	23	3S	1
11 B950770	7	0	T	3S	;1-	0
12 92145E8-7-7-1-9	1	0	0	0;	0;	0
13 AR839-27-1-3	19	15	T	3S	;23	4
14 AR584A-3-1-3	23	23	-	0;	;1	0
15 AR839-28-1-2	15	7	0	23	3;	1
16 KY91C-171-24	23	50	T	3S	2;	1
17 Sunny (exp. name)	30	40	T	3S	23	3
18 Honey (exp. name)	60	70	10	23	;2	7
19 Zorro (exp. name)	40	60	5	3S	3S	4
20 VA97W-206	29	8	10	;12	12;	0
21 VA98W-591	15	33	0	0;	0;	0
22 VA99W-564	16	0	T	;23	;23	0
23 T123	8	1	0	3S	;12	0
24 T124	9	2	T	0;	3S	0
25 MO 960903	9	0	T	23;	;12	0
26 MO 980525	9	0	0	3S	3S	2
27 91202RB1-3-3-19	9	0	T	;12	0;	0
28 92201D5-2-29	0	0	T	2;	;2	0
29 92212RC4-3-137-2	7	0	T	23;	0;/TS	2
30 B960457	5	1	T	0;	0;	0
31 B961160	5	0	T	3S	0;	1
32 B961416	9	0	T	3S	3S	0
33 OH 684	23	5	40	3S	3S	8
34 OH 687	33	15	10	3S	23	2
35 G09139	19	0	T	3S	3S	0
36 G09093	30	1	0	3S	3S	1
37 G09107	23	15	T	3S	3S	0
38 G09108	9	0	0	3S	3S/T0;	1
39 IL95-4162	19	0	-	0;	;2	0
40 M97-1048	40	0	T	23	;23	3
41 M97-1171	50	1	T	2	;2	2
42 M97-1381	40	0	-	23;	0;	0
43 TW97613	11	0	T	23	;1	0
44 TW005-008	23	1	-	0;	0;	0

LOCATION MEANS	19.1	10.7				1.3
GROWTH STAGE / DATE	5/23/01	5/18/01		greenhouse	greenhouse	

LEAF RUST

St. Paul
MN

Reactions produced by NA race*

		CBGJ	CDBD	LBBR	CLLR	FBRP	MBRK	TLGF	TLGJ	SCGF	Postulated genes***
1	Caldwell	3	3	3	2c2	3	3	3	3	3	+
2	Foster	;	;	;	;	;	2c;	;1c	;	3	26,+
3	Patton	;-3	;	;	;	;	;1c	;3	;	-	+
4	Raone	3	3;	;	;	3	3	2c;-3	3	3	11
5	VA98W-593	;	;	;	;1c	;	;	;	;	;	+
6	IL94-1653	3	3	3;	3	3	3	3	3	3	0
7	IL95-947	;-3	;-3	3-;	;1c-3	2c-3	;-3	;	3	3	+
8	KY90C-292-4-1	3	;1	3;	;1c	3	3	;	3	3;	10,11
9	KY90C-054-6	3	;	31c	3	;	3	;-3	3	;	10,+
10	OH645	3;	3;	;	;	;2c3	;1-3	;3	;2c2	-	+
11	B950770	21c	;	;	;	;	3	;	;1c2	;	1,3,10,18
12	92145E8-7-7-1-9	;	;1c	;	;1cn	;1cn	;1cn	;	;1cn	;	+
13	AR839-27-1-3	2c;	;	;	;	;	3	;	;2c2	-	1,3,10,18
14	AR584A-3-1-3	;	;	;	;1c-2c	;	;	;	3	;	9,10,11+
15	AR839-28-1-2	2c;	;	;2	;	;	3	-	;2c2	3	1,11,18
16	KY91C-171-24	3	3	2c;	3	23;	3	;	;2c2	;	+
17	Sunny (exp. name)	3	;1c	-	-	-	;3	;3	3	3	11,+
18	Honey (exp. name)	3	3	3	-	3	3	;3	3	3	0
19	Zorro (exp. name)	3	3	3	3	3	3	3	3	3-;	0
20	VA97W-206	;1c	;	;	;	;	;	;	;1	;	+
21	VA98W-591	;	3	;	;1c	;	;	;	;	;	24,+
22	VA99W-564	3-2c;	3-;	;-2c	;	;1c	;1c	;	3-;	;	+
23	T123	3	3-;	3	3	3	3	;	3-;	;-3	+
24	T124	;	;	;	;	;1cn	;	;	3	;-3	1,10,11
25	MO 960903	;	;	;	;	;	;	;	;	;2c	+
26	MO 980525	;-3	;	;	3-;	3-;	;	;-3	;-3	3-;	11,+
27	91202RB1-3-3-19	;	;	;	;	;	;	;	;	;1c	+
28	92201D5-2-29	;1c	;1c	;	;1c	;1c	;2c	;2c	2;c	;1c	+
29	92212RC4-3-137-2	;	;	;	;	;	;1c	;	;	;1c	+
30	B960457	;	;	;	;	;	;	;	;	-	+
31	B961160	;1c2-3	;	3	3;	;1c	3	;-3	3;	;-3	10,18,+
32	B961416	;1c2-3	3;	;	;1	3	3	3	3	3,1c;	11,+
33	OH 684	3	;1c2	;1c	;1c2	-	3	;	3	3;	10,11,+
34	OH 687	-	;1c	;	;1c2	;1c	3;	;1c	3;	3	26,+
35	G09139	3	1c;-3	3	3	3	3;	3	3	3;	+
36	G09093	;3	;	;3	;	;	3	3	3	3	1,11,+
37	G09107	3	3	;	;1c	;	3	;	3	3	+
38	G09108	-	;	3-;	-	;	3	;-3	3	-	10,11,+
39	IL95-4162	;	;	;	;	;	;	;	3;	3	26,+
40	M97-1048	3	2;	2c;	3	2c;	3	;-3	3	;1c	3,10
41	M97-1171	;	;	;1c	;	;	3-;	;	;23	3	0
42	M97-1381	3	;	3	;2c2	;1c	3	;	3	;3	10,+
43	TW97613	3	-	3	3	3	;3	;	3	3;	+
44	TW005-008	;	;	;	;	;	;	;	;	;	+

* Single genes tested = *Lr1, 2a, 2c, 3, 3ka, 9, 10, 11, 14a, 16, 17, 18, 24, 26, 30, B*

**Virulence formula:

CBGJ = 3,11,14a,18	MBRK = 1,3,3ka,10,11,14a,18,30
CDBD = 3,14a,24	TLGF = 1,2a,2c,3,9,11,14a,18
LBBR = 1,10,18,B	TLGJ = 1,2a,2c,3,10,11,14a
CLLR = 3,3Ka,9,10,18,B	SCJF = 1,2a,2c,11,14a,17,18,26
FBRP = 2c,3,3ka,11,14a,18,B	

*** 0 = no gene(s) detected with these Lr combinations; += Lr gene(s) present but unable to identify with these Lr virulence

STEM RUST

St. Paul
MN

		80-BRA 38A TTRS	72-MEX 53A RTQQ	69-MN 399 QTHJ	70-MN 142 RTHJ	74-MN 1409 TPMK	Post.
1	Caldwell	S	;	2	S	2	17,+
2	Foster	S?	2=	2=	2=	2=	+
3	Patton	;1	;;2=	2=	2=	2=	17seg,24?
4	Roane	S	S	S	S	S	none
5	VA98W-593	2=	2=	2=	2-	2=	24
6	IL94-1653	2	;	2	2	2+	17,+
7	IL95-947	2,S	S	2+	S	2-	+
8	KY90C-292-4-1	S	2=,S	2+	S	2	+
9	KY90C-054-6	2+	2+	2+	2+	2+	?
10	OH645	2	;	2	2	S	17,+
11	B950770	2	0	0	0	22+	17,36,+
12	92145E8-7-7-1-9	2+	;1-n	21c	21c	2-	10,+
13	AR839-27-1-3	2+	S	2+	2+	2	+
14	AR584A-3-1-3	2	Xn	22+	2+	S	10,+
15	AR839-28-1-2	2	S	S	S	2-	8a,+
16	KY91C-171-24	S	S	S	S	---	none
17	Sunny (exp.name)	2+	2+	---	22+	0	6,+
18	Honey (exp.name)	2	---	2	2	0	6,+
19	Zorro (exp.name)	2-	1	0	0	S	36,+
20	VA97W-206	2	22-	2	2	2	31
21	VA98W-591	2=	;	2-	2=	0	6,17,24
22	VA99W-564	2=,2	2	2-,S	2-	2=	24?
23	T123	2=	2	2	2	0,2	seg6,24?
24	T124	2+	;	S	S	0,S	6seg,17,+
25	MO 960903	2+	X-n	2+	22+	22+	10,+
26	MO980525	2	2	2	2	2	24?
27	9120RB1-3-3-19	2=	;	2=	2=	2=	17,24?
28	92201D5-2-29	22+	;11+n	22+	Xc	22+	10,+
29	9221RC4-3-137-2	;	;	2-	2-	2-	8a,17,+
30	B960457	2	2	2	2+	2	24
31	B961160	22+	2	0	0	2	24?,36
32	B961416	2	;1-	2=	0	0,2	6seg,+
33	OH684	2	2	2	2	22+	24?
34	OH687	2	2	2	2	2	24?
35	GO9139	22-	;1-n	0	0	22+	10,36,+
36	G09093	S	S	2	S	2	+
37	G09107	2	2-2	22+	2+	2	+
38	G09108	2-,S	S	S	S	2b	9b
39	IL95-4162	2	Xn	22+	2	2	10,9a?
40	M97-1048	2+	2+	2+	2+	2	+
41	M97-1171	2+	2	2,0	0,2-	S	36seg,+
42	M97-1381	2+	S	2+	2+	2	+
43	TW97613	2	---	S	22+	S	+
44	TW005-008	1	---	2=	2=	2-	+

STRIPE RUST

	Fayetteville AR	W. Lafayette IN	Lincoln NE	Ridgetown ON
	%	% flag	1-4	
1 Caldwell	11	Tr	4	0.0
2 Foster	50	25	4	0.0
3 Patton	50	30	4	0.0
4 Roane	9	Tr	4	0.0
5 VA98W-593	7	Tr	2	0.0
6 IL94-1653	7	1	3	0.0
7 IL95-947	0	0	1	0.0
8 KY90C-292-4-1	1	Tr	2	0.0
9 KY90C-054-6	2	Tr	1	0.0
10 OH645	0	0	3	0.0
11 B950770	29	1	3	0.0
12 92145E8-7-7-1-9	0	0	1	0.0
13 AR839-27-1-3	1	0	1	0.0
14 AR584A-3-1-3	2	0	1	0.0
15 AR839-28-1-2	1	0	1	0.5
16 KY91C-171-24	5	0	1	0.0
17 Sunny (exp. name)	1	1	2	1.0
18 Honey (exp. name)	23	3	3	1.0
19 Zorro (exp. name)	2	Tr	1	0.0
20 VA97W-206	7	Tr	4	0.0
21 VA98W-591	1	0	1	0.0
22 VA99W-564	15	7	1	0.0
23 T123	11	1	2	0.0
24 T124	4	0	2	0.5
25 MO 960903	11	15	2	0.0
26 MO 980525	0	0	1	0.0
27 91202RB1-3-3-19	15	1	4	0.0
28 92201D5-2-29	1	0	1	0.0
29 92212RC4-3-137-2	2	Tr	2	0.0
30 B960457	1	0	1	0.0
31 B961160	9	2	3	0.0
32 B961416	15	15	2	0.0
33 OH 684	1	0	1	0.0
34 OH 687	4	0	2	0.0
35 G09139	9	5	4	0.0
36 G09093	5	0	2	0.0
37 G09107	0	0	2	0.5
38 G09108	15	2	3	0.0
39 IL95-4162	0	0	1	0.0
40 M97-1048	1	0	2	0.0
41 M97-1171	23	5	3	0.0
42 M97-1381	2	0	2	0.5
43 TW97613	4	0	2	0.0
44 TW005-008	19	Tr	2	0.0
LOCATION MEANS	8.5		2.1	0.1
GROWTH STAGE / DATE	5/17/01	5/9/01		

SEPTORIA

	Fayetteville AR	Wabash IN	W. Lafayette IN	Baton Rouge LA	Columbia MO	Wooster OH
	leaf blotch %	nodorum 0-9	0-9	leaf blotch 0-9		leaf blotch 0-9
1 Caldwell	30	2.0	5	4	29	3.3
2 Foster	15	3.0	6	3	21	2.3
3 Patton		3.0	6	4	29	2.0
4 Roane	15	2.0	4	3	24	2.0
5 VA98W-593	15	2.5	2	6	11	2.0
6 IL94-1653	23	2.5	4	2	28	5.0
7 IL95-947	7	1.5	2	3	14	2.0
8 KY90C-292-4-1	30	2.0	4	5	33	2.0
9 KY90C-054-6	15	1.0	2	4	22	1.7
10 OH645	23	4.5	5	6	41	2.0
11 B950770	23	2.5	6	3	23	2.7
12 92145E8-7-7-1-9	23	5.5	3	7	41	2.0
13 AR839-27-1-3	11	1.5	3	5	26	3.3
14 AR584A-3-1-3	7	2.0	6	3	17	2.3
15 AR839-28-1-2	15	2.0	4	5	35	2.0
16 KY91C-171-24	15	3.0	4	5	29	4.7
17 Sunny (exp. name)	15	3.5	4	4	25	3.7
18 Honey (exp. name)	30	1.5	5	3	46	4.0
19 Zorro (exp. name)	15	4.0	3	2	35	2.0
20 VA97W-206	23	2.5	4	7	25	2.3
21 VA98W-591	11	2.5	2	4	13	1.7
22 VA99W-564	15	3.0	4	6	26	2.0
23 T123	15	2.0	4	2	16	2.0
24 T124	30	2.5	4	7	22	3.0
25 MO 960903	15	2.0	5	2	24	4.3
26 MO 980525	7	1.5	4	3	22	2.3
27 91202RB1-3-3-19	15	5.5	2	4	20	2.3
28 92201D5-2-29	7	2.5	2	4	44	3.0
29 92212RC4-3-137-2	11	4.0	2	5	17	3.0
30 B960457	7	2.5	3	4	19	2.3
31 B961160	23	2.5	5	3	15	2.7
32 B961416	33	2.5	7	4	17	2.0
33 OH 684	11	2.0	2	3	18	2.0
34 OH 687	23	3.5	4	6	38	3.0
35 G09139	30	3.0	7	6	35	3.0
36 G09093	23	2.0	3	2	25	3.7
37 G09107	23	2.5	3	3	21	3.7
38 G09108	19	2.0	3	4	27	4.3
39 IL95-4162	30	2.5	3	5	23	5.3
40 M97-1048	23	3.0	4	3	18	3.7
41 M97-1171	30	3.5	4	4	32	3.7
42 M97-1381	30	1.0	5		31	3.0
43 TW97613	15	3.0	3	7	18	3.0
44 TW005-008	15	1.5	4	3	14	2.0
LOCATION MEANS	18.9	2.6	3.9	4.1	25.2	2.8
GROWTH STAGE / DATE	5/23/01		6/15/01	5/1/01		

SEPTORIA

		Nairn ON	Knoxville TN	Overton TX
		0-9	0-9	
1	Caldwell	6.0	6.3	5
2	Foster	4.0	2.7	3
3	Patton	5.5	4.0	4
4	Roane	5.5	3.3	4
5	VA98W-593	4.5	1.7	5
6	IL94-1653	5.0	3.3	5
7	IL95-947	3.5	2.7	5
8	KY90C-292-4-1	5.0	2.0	5
9	KY90C-054-6	5.0	2.3	4
10	OH645	4.5	6.7	5
11	B950770	4.5	6.3	3
12	92145E8-7-7-1-9	4.0	6.0	5
13	AR839-27-1-3	4.0	0.7	3
14	AR584A-3-1-3	3.5	4.7	4
15	AR839-28-1-2	4.0	2.3	4
16	KY91C-171-24	5.0	1.7	5
17	Sunny (exp. name)	5.5	1.8	6
18	Honey (exp. name)	4.0	2.7	4
19	Zorro (exp. name)	5.5	5.7	5
20	VA97W-206	5.0	7.0	5
21	VA98W-591	4.0	1.0	5
22	VA99W-564	5.5	5.3	4
23	T123	4.5	0.2	3
24	T124	4.5	3.3	4
25	MO 960903	5.5	3.0	4
26	MO 980525	5.5	0.2	4
27	91202RB1-3-3-19	3.5	5.7	5
28	92201D5-2-29	3.0	5.0	3
29	92212RC4-3-137-2	3.0	2.0	3
30	B960457	5.0	1.7	3
31	B961160	4.0	3.0	3
32	B961416	5.0	6.0	3
33	OH 684	4.0	1.0	3
34	OH 687	5.0	2.0	3
35	G09139	5.5	7.0	4
36	G09093	4.5	2.7	3
37	G09107	4.5	3.0	4
38	G09108	5.5	0.7	3
39	IL95-4162	4.5	2.7	4
40	M97-1048	6.0	2.7	3
41	M97-1171	6.5	6.3	5
42	M97-1381	6.0	5.7	4
43	TW97613	6.0	4.0	4
44	TW005-008	5.0	0.8	4
LOCATION MEANS		4.8	3.4	4.0
GROWTH STAGE / DATE				

POWDERY MILDEW

	Quincy FL	Greensburg IN	Wabash IN	Lexington KY	Smithville OH	Wooster OH
	0-9	1-9	0-9	0-9	0-9	0-9
1 Caldwell	4	6	0.0		6.5	1.0
2 Foster	4	6	2.5	7	0.5	1.0
3 Patton	3	6	2.5	7	3.5	1.3
4 Roane	0	3	0.0	6	0.0	0.0
5 VA98W-593	0	3	0.0	6	0.0	0.0
6 IL94-1653	1	6	3.5	7	1.0	1.7
7 IL95-947	1	3	2.5	5	0.0	0.0
8 KY90C-292-4-1	1	3	0.0		0.5	0.0
9 KY90C-054-6	4	3	0.0	6	0.0	1.3
10 OH645	1	5	2.0		0.0	0.0
11 B950770	2	3	0.0	7	0.0	0.7
12 92145E8-7-7-1-9	1	3	0.0	7	0.0	0.0
13 AR839-27-1-3	3	9	2.5	6	0.0	0.0
14 AR584A-3-1-3	3	4	1.0		0.0	1.0
15 AR839-28-1-2	3	9	3.0		0.5	0.0
16 KY91C-171-24	2	6	2.5	7	0.0	0.3
17 Sunny (exp. name)	0	4	0.0	6	1.0	0.0
18 Honey (exp. name)	0	4	0.0	7	0.0	0.3
19 Zorro (exp. name)	0	4	0.0		0.0	0.0
20 VA97W-206	2	4	0.0	6	0.0	0.0
21 VA98W-591	0	3	0.0	6	0.0	0.0
22 VA99W-564	2	3	0.0	7	0.0	0.0
23 T123	1	6	2.0	5	0.0	0.3
24 T124	1	6	0.5	7	0.0	1.0
25 MO 960903	0	4	0.0	7	0.0	0.0
26 MO 980525	2	6	2.0	6	0.0	0.7
27 91202RB1-3-3-19	0	3	0.0	6	0.0	0.0
28 92201D5-2-29	0	3	0.0	7	0.0	0.0
29 92212RC4-3-137-2	0	4	0.0	7	0.0	0.3
30 B960457	0	4	0.5	7	0.0	1.0
31 B961160	2	3	0.0	6	0.0	0.7
32 B961416	3	3	0.5		0.0	1.3
33 OH 684	1	3	1.5	6	0.0	0.3
34 OH 687	1	6	1.0	7	0.0	0.3
35 G09139	0	5	0.5		0.0	2.3
36 G09093	3	7	2.0	6	3.5	1.7
37 G09107	4	5	1.5	7	2.0	2.0
38 G09108	5	9	6.0	6	0.0	2.0
39 IL95-4162	2	9	2.0		2.0	1.7
40 M97-1048	0	6	1.0	6	0.0	0.7
41 M97-1171	0	8	2.0		0.5	1.0
42 M97-1381	0	9	3.0	7	1.0	1.0
43 TW97613	2	5	1.5	6	0.0	1.0
44 TW005-008	0	4	0.0	6	0.0	0.0
LOCATION MEANS	1.5	5.0	1.1	6.4	0.5	0.6
GROWTH STAGE / DATE	4/17/01	9				

POWDERY MILDEW

	Nairn ON	Ridgetown ON	Blacksburg VA	Blacksburg VA	Blacksburg VA	Warsaw VA
	0-9		PM composite	Roane	0-9	0-9
1 Caldwell	4.5	2.0	34S	3MS	3	4
2 Foster	2.5	2.5	1R	1R	3	5
3 Patton	4.0	1.0	2I	1R	2	3
4 Roane	1.0	0.0	1R	3MS	1	6
5 VA98W-593	2.0	0.0	0R	0R	1	0
6 IL94-1653	4.0	1.5	4S	4S	2	4
7 IL95-947	3.0	0.0	3MS	4S	3	4
8 KY90C-292-4-1	1.5	0.0	23MSI	3MS	2	3
9 KY90C-054-6	1.0	0.5	23MSI	23IMS	4	6
10 OH645	2.0	0.0	4S	4S	1	3
11 B950770	1.5	0.0	4S	23MSI	2	4
12 92145E8-7-7-1-9	1.5	0.0	1R	23MSI	1	2
13 AR839-27-1-3	4.0	1.5	4S	4S	2	6
14 AR584A-3-1-3	3.0	0.0	4S	34MS	3	8
15 AR839-28-1-2	4.5	0.5	4S	4S	3	5
16 KY91C-171-24	4.0	0.5	34MS	4S	3	5
17 Sunny (exp. name)	2.0	0.5	4S	23IMS	1	2
18 Honey (exp. name)	0.5	0.0	0R	34MS	1	3
19 Zorro (exp. name)	2.0	0.0	1R	12MRI	1	1
20 VA97W-206	2.0	0.0	23MSI	3MS	1	2
21 VA98W-591	2.0	0.0	0R	0R	1	0
22 VA99W-564	2.0	0.0	2MR	2I	1	1
23 T123	3.5	0.0	3MS	4S	2	4
24 T124	1.0	0.0	4S	3MS	3	4
25 MO 960903	2.5	0.0	12MR	2I	1	1
26 MO 980525	4.5	2.5	4S	4S	2	6
27 91202RB1-3-3-19	2.0	0.0	12MR	34MS	1	0
28 92201D5-2-29	1.5	0.0	12MR	4S	2	9
29 92212RC4-3-137-2	3.5	0.5	12MR	0R	1	1
30 B960457	2.0	0.5	23MSI	2I	2	4
31 B961160	1.0	0.0	34MS	23IMS	2	5
32 B961416	1.5	0.0	4S	23IMS	4	7
33 OH 684	3.5	0.0	2I	34MS	2	3
34 OH 687	2.5	0.0	2I	3MS	2	4
35 G09139	1.5	0.0	23IMS	23IMS	3	8
36 G09093	2.5	0.5	3MS	2I	4	7
37 G09107	3.5	0.0	3MS	3MS	5	4
38 G09108	5.5	2.5	3MS	4S	5	8
39 IL95-4162	4.0	1.0	4S	4S	2	4
40 M97-1048	3.0	0.5	4S	0R	1	2
41 M97-1171	4.5	2.0	4S	4S	3	6
42 M97-1381	4.5	1.5	34MS	4S	4	7
43 TW97613	2.5	0.0	34MS	2I	2	5
44 TW005-008	1.5	0.0	0R	0R	1	0
LOCATION MEANS	2.6	0.5			2.2	4.0
GROWTH STAGE / DATE			greenhouse	greenhouse		

POWDERY MILDEW

Raleigh
NC

	ABK	Aso	E2-15	E3-14	F7-11	F7-12	Mo10	Pm4	Yuma	WKin91
14 AR584A-3-1-3	S	S	S	S	S	S	S	S	S	S
15 AR839-28-1-2	S	S	S	S	S	S	S	S	S	S
16 KY91C-171-24	S	S	S	S	S	S	S	SR	S	S
17 Sunny	M	R	S	S	S	R	R	R	S	S
18 Honey	R	R	R	R	R	R	RM	RM	R	RM
19 Zorro	R	M	M	S	S	S	M	S	S	S
20 VA97W-206	RM	S	S	S	S	S	S	S	S	S
21 VA98W-591	R	R	R	M	M	R	RM	M	R	M
22 VA99W-564	R	RM	S	S	SR	S	M	S	RM	S
23 T123	M	S	S	S	S	S	S	S	S	S
24 T124	M	S	S	S	S	S	M	S	S	S
25 MO960903	M	S	S	S	S	S	RM	S	S	S
26 MO980525	M	S	S	S	S	S	S	S	S	S
27 91202RB1-3319	R	R	R	R	R	R	R	R	R	R
28 92201D5-229	R	RM	R	R	R	R	R	R	R	R
Chancellor	M	M	S	S	S	S	S	S	S	S
29 92212RC4-31372	R	R	M	M	R	R	S	S	R	M
30 B960457	M	S	S	S	S	S	S	S	S	S
31 B961160	M	S	S	S	S	M	S	S	S	S
32 B961416	R	S	S	S	S	M	S	S	M	S
33 OH 684	S	S	S	S	S	S	S	S	S	S
34 OH 687	S	S	S	S	S	S	S	S	S	S
35 G09139	SR	S	S	S	S	S	S	S	S	S
36 G09093	SR	M	S	S	S	S	S	S	S	S
37 G09107	S	S	S	S	S	S	S	S	S	S
38 G09108										
39 IL95-4162	SR	S	S	S	S	S	S	S	S	S
40 M97-1048	S	R	S	S	R	R	R	R	R	S
41 M97-1171	S	S	S	S	S	S	S	S	S	S
42 M97-1381	M	S	S	S	S	R	S	S	S	S
43 TW97613	MR	R	S	S	S	S	R	R	S	S
44 TW005-008	R	R	RM	R	R	R	R	R	R	R
Chancellor	S	S	S	S	S	S	S	S	S	SR

POWDERY MILDEW

Raleigh
NC

	W72-27	3a	6	127	144	85063	#5	#7	#8	#9
14 AR584A-3-1-3	R	M	S	S	S	S	S	S	RS	R
15 AR839-28-1-2	S	M	S	S	SR	M	S	S	S	R
16 KY91C-171-24	RM	RM	S	R	R	M	R	S	R	RM
17 Sunny	M	R	RM	R	R	M	RM	S	R	R
18 Honey	R	R	R	S	M	M	R	S	S	R
19 Zorro	R	RM	S	M	M	R	M	M	R	R
20 VA97W-206	R	M	RS	R	R	R	R	S	R	R
21 VA98W-591	R	RM	R	RM	M	S	M	M	M	R
22 VA99W-564	M	S	S	RM	RM	M	M	S	M	R
23 T123	S	S	S	RM	S	S	RS	S	S	R
24 T124	R	S	S	RM	M	M	M	S	M	M
25 MO960903	RM	S	S	R	R	S	R	M	RS	RM
26 MO980525	M	S	S	RM	S	S	S	S	S	M
27 91202RB1-3319	R	R	R	RM	RM	R	RM	M	S	RM
28 92201D5-229	R	R	R	R	R	R	RM	RM	RM	RM
Chancellor	M	S	S	M	S	S	S	M	S	RM
29 92212RC4-31372	R	RM	RM	R	S	S	SR	S	S	S
30 B960457	S	S	S	M	S	S	S	S	S	S
31 B961160	R	S	S	R	RM	M	M	M	S	M
32 B961416	R	S	S	M	M	M	S	S	S	M
33 OH 684	R	S	S	R	R	R	R	S	R	S
34 OH 687	R	S	S	R	R	R	R	S	R	S
35 G09139	R	S	M	RM	M	RM	R	S	S	M
36 G09093	M	M	M	RM	S	S	S	S	S	S
37 G09107	RM	M	M	RM	S	S	M	S	S	S
38 G09108										
39 IL95-4162	RM	M	S	RM	S	M	S	S	S	S
40 M97-1048	S	R	R	RM	R	S	RM	R	S	R
41 M97-1171	S	RM	M	R	S	S	S	S	S	S
42 M97-1381	S	RM	S	RM	S	S	S	S	S	S
43 TW97613	R	R	R	R	R	R	R	S	R	S
44 TW005-008	R	R	R	R	RM	R	R	M	M	R
Chancellor	S	RM	S	RM	S	S	S	S	S	S

POWDERY MILDEW

Raleigh
NC

	#10	43a1	43a2	73b2	101a2	153a2	156b1	169-1b	209a2	216a
14 AR584A-3-1-3	M	S	RM	S	S	S	S	M	S	M
15 AR839-28-1-2	S	S	R	S	S	S	S	S	S	S
16 KY91C-171-24	R	SR	RM	S	R	S	S	R	S	S
17 Sunny	R	S		R	R	S	S	S	R	R
18 Honey	R	RM		R	S	M	R	MR	RM	R
19 Zorro	R	S		M	M	S	S	M	S	M
20 VA97W-206	R	S		S	R	S	S	R	S	S
21 VA98W-591	R	M		RM	S	M	M	RM	RM	R
22 VA99W-564	M	RS		S	M	S	RM	S	RS	S
23 T123	S	S		S	S	S	S	RS	S	S
24 T124	M	S	RM	S	M	S	S	S	S	S
25 MO960903	R	S	M	S	RS	S	S	R	S	S
26 MO980525	S	S	S	S	S	S	S	S	S	S
27 91202RB1-3319	R	R	R	R	M	R	R	R	R	R
28 92201D5-229	R	R	R	R	R	R	R	R	R	R
Chancellor	S	S	S	S	S	S	S	S	S	S
29 92212RC4-31372	S	R	R	S	S	M	R	S	R	RM
30 B960457	S	S	S	S	S	S	S	S	S	S
31 B961160	M	S	RS	S	S	S	M	S	M	S
32 B961416	M	S	S	S	M	S	S	S	S	S
33 OH 684	R	S	S	S	R	S	S	R	S	S
34 OH 687	R	S	S	S	R	S	S	R	S	S
35 G09139	RM	S	S	S	R	S	S	S	S	S
36 G09093	RM	S	S	S	M	S	S	S	S	S
37 G09107	S	S	S	S	S	S	S	S	S	S
38 G09108										
39 IL95-4162	S	S	S	S	S	S	S	S	S	S
40 M97-1048	R	R	R	R	S	S	R	R	R	RM
41 M97-1171	S	S	S	S	S	S	S	S	S	S
42 M97-1381	S	S	RS	S	S	S	S	S	S	S
43 TW97613	RS	S	S	R	R	S	S	S	R	R
44 TW005-008	M	R	R	R	M	R	R	RM	R	R
Chancellor	S	S	S	S	S	S	S	S	S	R

FUSARIUM HEAD BLIGHT (SCAB)

		Urbana IL			Ridgetown ON	
		Incidence	Severity	Index	Quality	
		%	%	0-100	0-9	0-9
1	Caldwell	16.3	12.3	2.2	3.0	6.0
2	Foster	32.0	11.0	3.5	3.3	3.0
3	Patton	13.3	9.7	1.3	4.3	3.0
4	Roane	19.7	9.7	1.9	2.0	1.2
5	VA98W-593	15.3	18.7	2.7	4.0	1.2
6	IL94-1653	17.7	9.0	1.6	2.7	2.0
7	IL95-947	15.3	9.3	1.4	2.7	1.0
8	KY90C-292-4-1	22.0	14.3	3.3	4.3	2.2
9	KY90C-054-6	39.3	9.7	3.8	3.0	2.2
10	OH645	40.7	20.7	8.9	3.0	3.5
11	B950770	17.7	9.0	1.6	3.3	2.5
12	92145E8-7-7-1-9	20.3	10.3	2.2	4.3	4.0
13	AR839-27-1-3	37.7	18.3	7.0	5.0	3.5
14	AR584A-3-1-3	45.7	19.0	9.4	5.3	3.0
15	AR839-28-1-2	29.0	19.3	5.6	4.7	3.2
16	KY91C-171-24	54.3	25.0	14.4	4.3	3.0
17	Sunny (exp. name)	50.0	26.7	10.0	6.3	3.5
18	Honey (exp. name)	23.3	15.0	3.5	3.0	3.0
19	Zorro (exp. name)	30.7	14.3	4.4	5.7	3.5
20	VA97W-206	68.3	60.0	42.0	5.3	3.2
21	VA98W-591	18.7	8.7	1.7	3.5	1.8
22	VA99W-564	25.0	13.0	3.3	3.7	2.8
23	T123	98.0	65.0	63.7	6.3	4.5
24	T124	60.0	33.3	20.0	5.7	3.2
25	MO 960903	41.7	17.0	8.8	4.7	3.0
26	MO 980525	19.7	22.7	4.5	1.3	0.5
27	91202RB1-3-3-19	28.7	12.0	3.7	3.3	2.8
28	92201D5-2-29	16.7	9.7	1.7	2.7	3.0
29	92212RC4-3-137-2	29.0	23.0	7.1	4.0	4.0
30	B960457	56.7	31.7	18.8	5.3	4.0
31	B961160	32.3	19.3	6.3	4.7	2.8
32	B961416	27.7	11.7	3.4	4.3	2.8
33	OH 684	44.3	21.7	9.7	2.7	2.5
34	OH 687	19.0	11.3	2.2	3.7	2.8
35	G09139	21.3	12.0	2.6	5.7	2.8
36	G09093	50.0	17.7	9.3	2.3	2.2
37	G09107	10.7	8.0	0.9	2.7	2.8
38	G09108	97.5	30.0	39.2	3.0	3.2
39	IL95-4162	10.3	10.7	1.1	1.7	1.0
40	M97-1048	58.3	41.7	24.3	5.0	4.0
41	M97-1171	14.7	11.7	1.7	3.7	3.2
42	M97-1381	12.0	8.3	1.0	1.7	3.2
43	TW97613	20.3	10.0	2.1	3.7	2.8
44	TW005-008	39.3	22.3	8.9	4.3	2.8
LOCATION MEANS		33.2	18.5	8.6	3.8	2.9
GROWTH STAGE / DATE						6/29/01

BYDV

Urbana
IL

		% dwarfing	rating '0-9
1	Caldwell	41.5	7.5
2	Foster	39.3	8.0
3	Patton	26.4	5.5
4	Roane	41.5	8.0
5	VA98W-593	23.6	6.5
6	IL94-1653	67.2	8.0
7	IL95-947	57.6	8.0
8	KY90C-292-4-1	30.5	6.0
9	KY90C-054-6	49.9	7.5
10	OH645	29.3	7.0
11	B950770	29.3	7.5
12	92145E8-7-7-1-9	35.8	7.5
13	AR839-27-1-3	27.7	6.0
14	AR584A-3-1-3	47.5	9.0
15	AR839-28-1-2	28.9	7.5
16	KY91C-171-24	32.8	7.5
17	Sunny (exp. name)	26.2	7.0
18	Honey (exp. name)	21.7	6.0
19	Zorro (exp. name)	61.1	8.0
20	VA97W-206	33.3	7.0
21	VA98W-591	14.6	5.5
22	VA99W-564	26.0	7.0
23	T123	39.0	7.5
24	T124	17.2	6.0
25	MO 960903	20.0	6.0
26	MO 980525	25.2	6.0
27	91202RB1-3-3-19	37.5	8.0
28	92201D5-2-29	39.8	8.0
29	92212RC4-3-137-2	20.8	7.0
30	B960457	29.0	7.0
31	B961160	71.7	8.5
32	B961416	33.3	7.0
33	OH 684	30.6	7.0
34	OH 687	29.4	7.0
35	G09139	23.6	6.5
36	G09093	28.8	7.5
37	G09107	23.9	6.0
38	G09108	26.6	6.0
39	IL95-4162	67.1	8.0
40	M97-1048	33.9	6.5
41	M97-1171	23.4	6.0
42	M97-1381	22.7	6.5
43	TW97613	29.2	6.5
44	TW005-008	29.4	7.0
LOCATION MEANS		33.9	7.0

SBMV

	Wichita KS	Winfield KS
	1-5	
1 Caldwell	1	3
2 Foster	1	2
3 Patton	1	3
4 Roane	3	3
5 VA98W-593	5	8
6 IL94-1653	5	3
7 IL95-947	1	3
8 KY90C-292-4-1	1	2
9 KY90C-054-6	1	3
10 OH645	1	2
11 B950770	1	5
12 92145E8-7-7-1-9	1	8
13 AR839-27-1-3	1	3
14 AR584A-3-1-3	1	3
15 AR839-28-1-2	1	2
16 KY91C-171-24	5	8
17 Sunny (exp. name)	3	6
18 Honey (exp. name)	1	5
19 Zorro (exp. name)	1	5
20 VA97W-206	1	2
21 VA98W-591	1	1
22 VA99W-564	1	2
23 T123	1	3
24 T124	1	2
25 MO 960903	1	3
26 MO 980525	1	2
27 91202RB1-3-3-19	1	2
28 92201D5-2-29	1	2
29 92212RC4-3-137-2	1	1
30 B960457	5	9
31 B961160	1	2
32 B961416	1	1
33 OH 684	1	1
34 OH 687	3	7
35 G09139	1	1
36 G09093	1	1
37 G09107	1	2
38 G09108	1	2
39 IL95-4162	1	1
40 M97-1048	1	1
41 M97-1171	1	2
42 M97-1381	3	8
43 TW97613	5	9
44 TW005-008	1	2
LOCATION MEANS	1.6	3.3

SPINDLE STREAK

		Bay
		AR
		1-9
1	Caldwell	5.0
2	Foster	4.7
3	Patton	2.3
4	Roane	4.0
5	VA98W-593	4.7
6	IL94-1653	5.0
7	IL95-947	4.0
8	KY90C-292-4-1	6.0
9	KY90C-054-6	4.7
10	OH645	2.3
11	B950770	4.0
12	92145E8-7-7-1-9	2.3
13	AR839-27-1-3	2.7
14	AR584A-3-1-3	2.7
15	AR839-28-1-2	3.3
16	KY91C-171-24	2.0
17	Sunny (exp. name)	3.3
18	Honey (exp. name)	3.0
19	Zorro (exp. name)	2.7
20	VA97W-206	5.0
21	VA98W-591	4.0
22	VA99W-564	4.7
23	T123	4.7
24	T124	5.3
25	MO 960903	4.0
26	MO 980525	6.3
27	91202RB1-3-3-19	3.0
28	92201D5-2-29	5.0
29	92212RC4-3-137-2	2.0
30	B960457	5.0
31	B961160	4.0
32	B961416	2.7
33	OH 684	6.0
34	OH 687	6.0
35	G09139	4.3
36	G09093	5.3
37	G09107	5.3
38	G09108	6.3
39	IL95-4162	5.3
40	M97-1048	6.0
41	M97-1171	3.3
42	M97-1381	2.0
43	TW97613	5.0
44	TW005-008	2.0
	LOCATION MEANS	4.1

HESSIAN FLY

W. Lafayette
IN

		Biotype B	Biotype C	Biotype D	Biotype E	Biotype L
1	Caldwell	13 - 0	0 - 15	0 - 13	12 - 1	0 - 13
2	Foster	0 - 12	0 - 14	0 - 14	0 - 15	0 - 12
3	Patton	0 - 11	10 - 3	12 - 1	12 - 2	0 - 12
4	Roane	12 - 0	12 - 1	0 - 14	18 - 0	0 - 13
5	VA98W-593	0 - 15	0 - 16	0 - 13	0 - 13	0 - 12
6	IL94-1653	15 - 1	1 - 9	0 - 12	14 - 0	0 - 11
7	IL95-947	9 - 1	10 - 6	0 - 12	19 - 0	6 - 8
8	KY90C-292-4-1	0 - 13	12 - 4	0 - 12	0 - 16	0 - 12
9	KY90C-054-6	0 - 16	8 - 4	0 - 14	0 - 17	0 - 13
10	OH645	0 - 13	16 - 0	11 - 2	9 - 9	4 - 15
11	B950770	0 - 12	0 - 16	0 - 12	0 - 16	0 - 12
12	92145E8-7-7-1-9	0 - 12	0 - 10	0 - 13	1 - 11	0 - 17
13	AR839-27-1-3	0 - 14	16 - 0	0 - 10	0 - 16	4 - 12
14	AR584A-3-1-3	0 - 13	0 - 18	0 - 15	0 - 16	0 - 13
15	AR839-28-1-2	0 - 14	0 - 16	0 - 14	0 - 17	0 - 10
16	KY91C-171-24	0 - 10	9 - 0	0 - 11	0 - 14	0 - 14
17	Sunny (exp. name)	0 - 10	12 - 1	0 - 15	12 - 2	0 - 14
18	Honey (exp. name)	0 - 13	0 - 11	0 - 15	0 - 14	0 - 15
19	Zorro (exp. name)	0 - 15	12 - 0	0 - 16	12 - 0	1 - 12
20	VA97W-206	0 - 18	0 - 15	0 - 15	0 - 17	0 - 10
21	VA98W-591	0 - 16	0 - 17	0 - 12	0 - 15	0 - 10
22	VA99W-564	1 - 14	0 - 14	0 - 13	0 - 12	0 - 11
23	T123	6 - 10	3 - 15	0 - 15	4 - 14	0 - 16
24	T124	0 - 13	0 - 18	0 - 16	0 - 16	0 - 11
25	MO 960903	0 - 12	0 - 15	0 - 12	0 - 14	0 - 10
26	MO 980525	0 - 12	0 - 11	0 - 14	0 - 13	0 - 10
27	91202RB1-3-3-19	9 - 5	13 - 0	0 - 12	15 - 0	0 - 12
28	92201D5-2-29	0 - 13	0 - 14	0 - 15	0 - 16	0 - 10
29	92212RC4-3-137-2	1 - 12	11 - 0	14 - 0	15 - 0	0 - 15
30	B960457	0 - 12	7 - 10	0 - 13	15 - 0	0 - 12
31	B961160	0 - 12	0 - 15	0 - 12	0 - 16	0 - 20
32	B961416	10 - 2	0 - 15	0 - 16	16 - 3	0 - 12
33	OH 684	0 - 13	0 - 17	0 - 15	10 - 8	1 - 13
34	OH 687	0 - 14	3 - 14	0 - 16	0 - 14	4 - 11
35	G09139	0 - 14	0 - 16	0 - 15	0 - 11	0 - 13
36	G09093	12 - 1	14 - 1	0 - 16	18 - 0	3 - 2
37	G09107	0 - 12	0 - 18	0 - 16	1 - 15	0 - 10
38	G09108	0 - 15	17 - 1	0 - 15	0 - 16	2 - 12
39	IL95-4162	0 - 13	0 - 15	0 - 17	0 - 16	0 - 18
40	M97-1048	0 - 10	0 - 11	0 - 13	0 - 18	0 - 10
41	M97-1171	0 - 15	0 - 17	0 - 14	0 - 18	0 - 11
42	M97-1381	0 - 14	15 - 1	0 - 12	13 - 1	5 - 5
43	TW97613	0 - 13	0 - 13	0 - 13	0 - 13	0 - 9
44	TW005-008	0 - 12	7 - 11	0 - 12	4 - 11	0 - 11

MATURITY

	Keiser AR	Ridgetown ON
	julian	julian
1 Caldwell	143	190
2 Foster	147	193
3 Patton	144	190
4 Roane	142	191
5 VA98W-593	146	194
6 IL94-1653	144	191
7 IL95-947	145	194
8 KY90C-292-4-1	142	192
9 KY90C-054-6	147	193
10 OH645	143	194
11 B950770	140	190
12 92145E8-7-7-1-9	141	191
13 AR839-27-1-3	145	195
14 AR584A-3-1-3	142	194
15 AR839-28-1-2	145	195
16 KY91C-171-24	143	192
17 Sunny (exp. name)	150	193
18 Honey (exp. name)	143	193
19 Zorro (exp. name)	143	191
20 VA97W-206	143	193
21 VA98W-591	144	194
22 VA99W-564	141	192
23 T123	158	193
24 T124	148	194
25 MO 960903	143	191
26 MO 980525	152	193
27 91202RB1-3-3-19	143	190
28 92201D5-2-29	142	193
29 92212RC4-3-137-2	143	194
30 B960457	144	190
31 B961160	144	194
32 B961416	141	190
33 OH 684	144	193
34 OH 687	143	194
35 G09139	139	189
36 G09093	144	192
37 G09107	141	190
38 G09108	152	192
39 IL95-4162	139	190
40 M97-1048	141	191
41 M97-1171	139	191
42 M97-1381	138	189
43 TW97613	142	191
44 TW005-008	146	192
LOCATION MEANS	143.8	192.1

SPRING PHENOTYPE

		Baton Rouge LA	Warsaw VA
		phenotype 0-9	early plant height
1	Caldwell	6	11.0
2	Foster	6	14.5
3	Patton	4	15.0
4	Roane	6	13.0
5	VA98W-593	5	14.0
6	IL94-1653	6	12.0
7	IL95-947	6	9.5
8	KY90C-292-4-1	4	15.5
9	KY90C-054-6	3	12.5
10	OH645	7	14.0
11	B950770	5	13.5
12	92145E8-7-7-1-9	3	13.5
13	AR839-27-1-3	4	12.5
14	AR584A-3-1-3	6	15.5
15	AR839-28-1-2	5	12.5
16	KY91C-171-24	6	16.5
17	Sunny (exp. name)	8	9.0
18	Honey (exp. name)	3	13.5
19	Zorro (exp. name)	6	14.0
20	VA97W-206	6	16.5
21	VA98W-591	4	13.5
22	VA99W-564	6	15.0
23	T123	6	11.0
24	T124	6	12.5
25	MO 960903	5	18.0
26	MO 980525	6	14.5
27	91202RB1-3-3-19	7	11.5
28	92201D5-2-29	5	15.0
29	92212RC4-3-137-2	3	13.5
30	B960457	3	15.0
31	B961160	6	16.0
32	B961416	7	16.5
33	OH 684	5	14.0
34	OH 687	5	14.0
35	G09139	6	13.5
36	G09093	5	14.0
37	G09107	6	11.5
38	G09108	7	11.5
39	IL95-4162	5	15.0
40	M97-1048	6	18.0
41	M97-1171	4	16.0
42	M97-1381		14.0
43	TW97613	8	14.5
44	TW005-008	7	12.0
LOCATION MEANS		5.4	13.8

ACID SOIL TOLERANCE

		Enid OK	
		1-5	1-5
1	Caldwell		
2	Foster		
3	Patton		
4	Roane		
5	VA98W-593		
6	IL94-1653		
7	IL95-947	2	2
8	KY90C-292-4-1		
9	KY90C-054-6		
10	OH645	3	3
11	B950770		
12	92145E8-7-7-1-9		
13	AR839-27-1-3		
14	AR584A-3-1-3	1	1
15	AR839-28-1-2	2	2
16	KY91C-171-24	4	4
17	Sunny (exp. name)	2	1
18	Honey (exp. name)	2	3
19	Zorro (exp. name)	2	3
20	VA97W-206	2	1
21	VA98W-591	3	2
22	VA99W-564	3	1
23	T123	3	3
24	T124	3	3
25	MO 960903	2	2
26	MO 980525	2	1
27	91202RB1-3-3-19	3	3
28	92201D5-2-29	4	5
29	92212RC4-3-137-2	4	4
30	B960457	2	2
31	B961160	2	2
32	B961416	2	3
33	OH 684	2	2
34	OH 687	4	5
35	G09139	3	4
36	G09093	3	3
37	G09107	2	2
38	G09108	2	1
39	IL95-4162	4	3
40	M97-1048	4	4
41	M97-1171	4	4
42	M97-1381	1	1
43	TW97613	4	3
44	TW005-008	3	2
LOCATION MEANS		2.7	2.6
GROWTH STAGE / DATE		4/18/01	5/8/01

1RS STATUS

Lincoln
NE

1	Caldwell	Non.1RS
2	Foster	1BL.1RS
3	Patton	1BL.1RS
4	Roane	Non.1RS
5	VA98W-593	1AL.1RS
6	IL94-1653	Non.1RS
7	IL95-947	Non.1RS
8	KY90C-292-4-1	Non.1RS
9	KY90C-054-6	Non.1RS
10	OH645	Non.1RS
11	B950770	Non.1RS
12	92145E8-7-7-1-9	Non.1RS
13	AR839-27-1-3	Non.1RS
14	AR584A-3-1-3	Non.1RS
15	AR839-28-1-2	Non.1RS
16	KY91C-171-24	Non.1RS
17	Sunny (exp. name)	Non.1RS
18	Honey (exp. name)	Non.1RS
19	Zorro (exp. name)	Non.1RS
20	VA97W-206	Non.1RS
21	VA98W-591	1AL.1RS
22	VA99W-564	Non.1RS
23	T123	Non.1RS
24	T124	Non.1RS
25	MO 960903	Non.1RS
26	MO 980525	Non.1RS
27	91202RB1-3-3-19	1BL.1RS
28	92201D5-2-29	Non.1RS
29	92212RC4-3-137-2	1BL.1RS
30	B960457	Non.1RS
31	B961160	Non.1RS
32	B961416	Non.1RS
33	OH 684	Non.1RS
34	OH 687	Non.1RS
35	G09139	Non.1RS
36	G09093	Non.1RS
37	G09107	Non.1RS
38	G09108	Non.1RS
39	IL95-4162	Non.1RS
40	M97-1048	Non.1RS
41	M97-1171	Non.1RS
42	M97-1381	Non.1RS
43	TW97613	Non.1RS
44	TW005-008	1BL.1RS

**2001 Crop
Advanced Nursery Evaluation**

MBQ – Uniform Eastern Nursery

Locations included in evaluation: Urbana, Illinois; Woodburn, Indiana; and Wooster, Ohio.

Patton was used as a quality check for evaluation purposes. Patton has average qualities. Lines scoring below Patton for milling or baking scores, would obviously have below average qualities. Of the other cultivars included, Foster has excellent milling characteristics and Roane has relatively poor characteristics.

Some specific observations can be made. Purdue (P) 92145E8-7-7-1-9 appears to be lower in test weight from Caldwell by about 1.5#. Caldwell is not especially high in TW genetically. Milling seems to be marginal, while AWRC and cookie spread is similar to Caldwell, Foster and Patton.

Three other sets have shown P9220ID5-2-29 will likely be similar to Foster in TW. Foster is usually about .5# to 1# higher in TW than Caldwell. This test line displays very marginal milling quality. AWRC' S are 4-5 percentage points higher than Caldwell and Foster, while the cookie spread may be very small.

P92212RC4-3-137-2 from two other sets presents contradictory TW data in contrast to this set. However, in the two prior sets the milling information seems to eliminate any doubt pertaining to the obvious inferior milling properties of this line. The average of the entries showed a flour yield that was three percentage points below Caldwell. AWRC may be slightly higher. There was no prior baking data.

VA 98W-591 appears to be similar to Roane in test weight. In our data bank, there are only 15 varieties that exceed the TW of Roane. The milling data from three other sets confirms the lower milling quality demonstrated by this line in this set. The flour yield could be 1-1.5 percentage points below Caldwell which would rank around 500 out of 531 cultivars. The AWRC is inconsistent among the four sets observed. The cookie spread may be similar to that of Caldwell, Foster and Patton.

VA 98W-593 is higher in test weight than VA 98W-591 by almost 1#. It is possible that this variety would average nearly 4# higher than the so-called reference wheats. There are only three cultivars that possess a test weight that would be 1# higher than VA 98W-593. It is suspected that the three cultivars are could be three different names for the same wheat. There is mixed information concerning the milling quality of VA 98W-593. This set of 44 Quad milled entries and a previously analyzed set from Virginia (also Quad milled) indicate that this

test line possesses poor milling quality, about 2-2.5 percentage points less than Caldwell or Sisson. In two Quad milled USN sets VA 98W-593 displayed yields that were only 0.5-1.2 percentage points below Coker 9835. Coker 9835 is similar to Caldwell in milling quality. Two Allis Chalmers milling of this test line suggest a milling quality 0.5-1.0 percentage points lower in flour yield compared with Caldwell and Sisson. AWRC is likely to be 4-5 points higher than Caldwell and Foster. Cookie spread probably will be small, about 1 cm below Caldwell and Foster.

Test weight for VA 97W-206 in another set was 0.5# lower than Caldwell, while in this set the test line was 1# higher than Caldwell. The milling quality is likely significantly inferior to Caldwell. AWRC will be moderately high and the cookie spread will be small.

Test weight was erratic in two different sets for VA 99W-564. Milling, AWRC and cookie will probably be similar to Caldwell.

This set along with two USN groups indicate the milling yield of AR 839-27-1-3 will be about 1 percentage point higher than Caldwell. The AWRC appears to be similar to Caldwell, while the cookie spread will be about 0.6 cm smaller than Caldwell and Foster.

In this set B 960457 displayed a flour yield that was 1.5 percentage points lower than Caldwell. However, in two other sets B 960457 possessed a flour yield similar to Caldwell. AWRC is likely to be similar to Caldwell and Foster. Cookie spread may be a little smaller than Caldwell and Foster.

Zorro has displayed very low and very atypical Softness Equivalence values in other sets.

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

STD = #2603, PATTON

LAB NO.	ENTRY	MILLING QUALITY SCORE		BAKING QUALITY SCORE		COMBINED QUALITY SCORE		MICRO T.W. LB/BU	SOFT. EQUIV. %	
****	STANDARD	100.0	A	100.0	A	100.0	A	62.2	55.4	
2601	1 Caldwell	104.1	A	110.0	A	104.1	A	61.6	57.8	
2602	2 Foster	104.5	A	107.0	A	104.5	A	61.8	54.8	
2603	3 Patton	100.0	A	99.9	A	99.9	A	62.2	55.4	
2604	4 Roane	91.6	C	78.4	F	78.4	F	64.3	55.7	
2605	5 VA98W-593	91.6	C	82.1	E	82.1	E	64.9	51.4	*
2606	6 IL94-1653	95.8	B	96.7	B	95.8	B	62.8	55.7	
2607	7 IL95-947	102.1	A	99.5	B	99.5	B	62.3	56.9	
2608	8 KY90C-292-4-1	86.2	D	76.0	F	76.0	F	62.4	55.2	
2609	9 KY90C-054-6	102.3	A	106.3	A	102.3	A	61.8	60.2	
2610	10 OH645	105.1	A	110.0	A	105.1	A	62.5	58.2	
2611	11 B950770	97.3	B	104.3	A	97.3	B	63.3	54.5	
2612	12 92145E8-7-7-1-9	97.9	B	109.6	A	97.9	B	60.5	57.5	*
2613	13 AR839-27-1-3	103.6	A	98.8	B	98.8	B	62.5	53.5	
2614	14 AR584A-3-1-3	98.1	B	105.5	A	98.1	B	62.1	53.4	
2615	15 AR839-28-1-2	101.6	A	99.4	B	99.4	B	62.5	53.7	
2616	16 KY91C-171-24	90.9	C	76.8	F	76.8	F	64.1	56.9	
2617	17 Sunny (exp. name)	95.9	B	105.9	A	95.9	B	62.2	58.2	
2618	18 Honey (exp. name)	103.4	A	105.1	A	103.4	A	61.1	54.5	
2619	19 Zorro (exp. name)	88.1	D	33.4	F	33.4	F	62.3	38.2	Q
2620	20 VA97W-206	93.8	C	91.7	C	91.7	C	62.6	51.8	*
2621	21 VA98W-591	96.4	B	90.1	C	90.1	C	64.0	55.4	
2622	22 VA99W-564	105.0	A	107.8	A	105.0	A	63.6	55.6	
2623	23 T123	93.5	C	91.5	C	91.5	C	61.9	56.9	
2624	24 T124	84.7	E	86.9	D	84.7	E	61.4	58.2	
2625	25 MO 960903	87.9	D	90.7	C	87.9	D	61.8	52.9	
2626	26 MO 980525	94.0	C	100.6	A	94.0	C	62.6	52.9	
2627	27 91202RB1-3-3-19	90.9	C	84.8	E	84.8	E	62.8	54.3	
2628	28 92201D5-2-29	88.8	D	78.1	F	78.1	F	62.7	56.3	
2629	29 92212RC4-3-137-2	85.1	D	82.9	E	82.9	E	61.9	52.6	
2630	30 B960457	96.9	B	94.7	C	94.7	C	61.1	55.5	
2631	31 B961160	100.0	A	106.3	A	100.0	A	62.3	54.8	
2632	32 B961416	94.6	C	98.7	B	94.6	C	62.5	53.9	
2633	33 OH 684	85.5	D	81.7	E	81.7	E	61.2	52.5	
2634	34 OH 687	87.5	D	84.4	E	84.4	E	62.1	54.9	
2635	35 G09139	90.6	C	80.2	E	80.2	E	60.7	56.2	*
2636	36 G09093	106.3	A	109.3	A	106.3	A	61.2	57.9	
2637	37 G09107	101.9	A	96.5	B	96.5	B	61.2	60.8	
2638	38 G09108	95.3	B	97.7	B	95.3	B	61.9	55.5	
2639	39 IL95-4162	90.4	C	80.0	E	80.0	E	62.9	49.8	*
2640	40 M97-1048	94.6	C	88.1	D	88.1	D	61.6	53.3	
2641	41 M97-1171	90.4	C	90.5	C	90.4	C	62.8	54.5	
2642	42 M97-1381	92.8	C	82.1	E	82.1	E	62.4	50.5	*
2643	43 TW97613	86.7	D	85.6	D	85.6	D	63.1	55.6	
2644	44 TW005-008	97.4	B	80.2	E	80.2	E	63.2	53.6	

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

STD = #2603, PATTON

LAB NO.	ENTRY	FLOUR YIELD %	FLOUR PROT. %	MICRO AWRC %	COOKIE DIAM. CM.	TOP GR.
****	STANDARD	72.0	8.86	60.4	18.15	4
2601	1 Caldwell	72.7	8.35	56.93	18.69	6
2602	2 Foster	74.4	9.31	56.89	18.46	5
2603	3 Patton	72.0	8.86	60.44	18.15	4
2604	4 Roane	69.6	Q 8.44	61.71	17.24	Q 2
2605	5 VA98W-593	70.2	Q 8.26	63.50	* 17.84	* 4
2606	6 IL94-1653	70.8	* 7.84	61.72	18.13	4
2607	7 IL95-947	72.3	8.05	58.55	17.93	4
2608	8 KY90C-292-4-1	68.5	Q 8.46	63.20	* 17.32	Q 3
2609	9 KY90C-054-6	71.8	7.99	60.90	18.55	5
2610	10 OH645	72.8	8.45	57.81	18.60	6
2611	11 B950770	71.3	9.04	58.64	18.28	4
2612	12 92145E8-7-7-1-9	71.3	8.25	57.52	18.45	5
2613	13 AR839-27-1-3	73.2	9.26	57.05	18.06	3
2614	14 AR584A-3-1-3	71.9	9.27	57.72	18.53	5
2615	15 AR839-28-1-2	72.7	9.33	55.06	18.08	5
2616	16 KY91C-171-24	69.2	Q 8.25	64.35	Q 17.41	Q 2
2617	17 Sunny (exp. name)	70.5	Q 8.04	59.51	18.21	4
2618	18 Honey (exp. name)	73.2	8.37	58.35	18.32	5
2619	19 Zorro (exp. name)	71.9	11.34	65.44	Q 16.35	Q 2
2620	20 VA97W-206	71.0	* 8.72	60.24	17.90	* 3
2621	21 VA98W-591	70.9	* 8.52	61.03	17.74	* 4
2622	22 VA99W-564	73.1	9.13	56.36	18.47	4
2623	23 T123	70.1	Q 8.47	58.15	17.54	Q 3
2624	24 T124	67.7	Q 8.62	62.23	* 17.61	Q 4
2625	25 MO 960903	69.3	Q 8.62	59.16	17.70	* 3
2626	26 MO 980525	70.9	* 8.42	59.61	18.21	3
2627	27 91202RB1-3-3-19	69.8	Q 9.29	63.75	Q 17.86	* 4
2628	28 92201D5-2-29	68.9	Q 8.14	62.17	* 17.25	Q 3
2629	29 92212RC4-3-137-2	68.7	Q 9.41	62.35	* 17.68	* 3
2630	30 B960457	71.3	8.97	60.44	17.89	* 3
2631	31 B961160	72.1	8.81	58.39	18.36	4
2632	32 B961416	70.9	* 9.32	58.64	18.04	4
2633	33 OH 684	68.9	Q 8.29	59.94	17.35	Q 4
2634	34 OH 687	68.9	Q 8.36	59.63	17.33	Q 3
2635	35 G09139	69.6	Q 9.36	57.14	17.03	Q 2
2636	36 G09093	73.4	8.75	54.82	18.36	6
2637	37 G09107	71.7	8.71	57.49	17.74	* 4
2638	38 G09108	70.8	* 8.80	57.63	17.91	5
2639	39 IL95-4162	70.4	Q 8.91	58.06	17.33	Q 3
2640	40 M97-1048	71.0	* 9.05	56.25	17.55	Q 4
2641	41 M97-1171	69.6	Q 9.36	56.68	17.61	Q 5
2642	42 M97-1381	71.0	* 9.48	55.82	17.40	Q 2
2643	43 TW97613	68.4	Q 8.98	59.88	17.38	Q 2
2644	44 TW005-008	71.5	8.43	62.14	* 17.48	Q 3

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

STD = #2603, PATTON

LAB NO.	ENTRY	LACTIC ACID RET'N
****	STANDARD	80.9
2601	1 Caldwell	104.7
2602	2 Foster	102.1
2603	3 Patton	80.8
2604	4 Roane	113.2
2605	5 VA98W-593	120.6
2606	6 IL94-1653	130.0
2607	7 IL95-947	116.8
2608	8 KY90C-292-4-1	101.6
2609	9 KY90C-054-6	105.2
2610	10 OH645	90.1
2611	11 B950770	104.6
2612	12 92145E8-7-7-1-9	92.9
2613	13 AR839-27-1-3	92.5
2614	14 AR584A-3-1-3	87.7
2615	15 AR839-28-1-2	92.9
2616	16 KY91C-171-24	127.7
2617	17 Sunny (exp. name)	116.1
2618	18 Honey (exp. name)	68.6
2619	19 Zorro (exp. name)	71.6
2620	20 VA97W-206	85.1
2621	21 VA98W-591	117.2
2622	22 VA99W-564	97.8
2623	23 T123	116.8
2624	24 T124	142.5
2625	25 MO 960903	88.0
2626	26 MO 980525	104.3
2627	27 91202RB1-3-3-19	82.1
2628	28 92201D5-2-29	120.5
2629	29 92212RC4-3-137-2	106.2
2630	30 B960457	88.9
2631	31 B961160	98.5
2632	32 B961416	83.8
2633	33 OH 684	108.8
2634	34 OH 687	91.5
2635	35 G09139	106.3
2636	36 G09093	84.5
2637	37 G09107	97.4
2638	38 G09108	78.2
2639	39 IL95-4162	114.4
2640	40 M97-1048	123.4
2641	41 M97-1171	116.0
2642	42 M97-1381	122.3
2643	43 TW97613	135.8
2644	44 TW005-008	90.1