

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service

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2001 - 2002

**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

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2001-2002 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	VA 98W-593	IN71761A4-31-5-48//VA7154-147/McNair1813/AL870365(C747*2/Amigo)	Griffey	99-00
6	KY 90C-292-4-1	Madison/Pio.Exptl XW571//2548	Van Sanford	99-00
7	KY 90C-054-6	FFR555W/2548	Van Sanford	99-00
8	AR 839-28-1-2	Terral 101/Pioneer 2580	Bacon	00-01
9	VA 98W-591	VA92-51-39 (IN71761A4-31-5-48//VA71-54-147/McNair1813)/ AL870365 (Coker 747*2/Amigo)	Griffey	00-01
10	T 124	T814*2//Coker 747/Roazon	Wilson	00-01
11	MO 960903	IL85-2872/MO 10501	McKendry	00-01
12	MO 980525	MO 11769/Madison	McKendry	00-01
13	92212RC4-3-137-2	88288C1/881072RA5/3/Grant//Clark/Tyler	Ohm	00-01
14	OH 684	Glory/OH449	Sneller	00-01
15	G 97041	Pacer/OH286	Brown	01-02
16	G 86244	IL84-3010/T812	Brown	01-02
17	G 96332	ABI89-4584A/T814	Brown	01-02
18	IL 96-346	Pio.2510/IL85-3132-1	Kolb	01-02
19	IL 97-2422	Y88-3a/IL90-8458	Kolb	01-02
20	OH 685	Glory/OH449	Sneller	01-02
21	OH 669	BlueboyII/Clark//Howell/OH416	Sneller	01-02
22	KY 90C-42-37-1	LB63/Freedom	VanSanford	01-02
23	MO 980725	MO11769/Madison	McKendry	01-02
24	M94*1549-1	SW85*36/SW85-145	Beazer	01-02
25	M98*2152	Pio.2510/92M*3449	Beazer	01-02
26	M98-2023	Pio.2510/Jackson	Beazer	01-02
27	TW 044-094	Pio.2510/Marilee	Shugar	01-02
28	TW 043-008	Pio.2510/Freedom	Shugar	01-02
29	Daisy exp.	MD80071-56/IN83179A1-6-2-4-1	Lafever	01-02
30	Husky exp.	Glory/Pio.2510	Lafever	01-02
31	Jekyl exp.	T814/OH436//Dynasty	Lafever	01-02
32	VA 98W-706	VA91-54-350//FFR555W/Gore	Griffey	01-02
33	B 961378	PS840061/Saluda//Coker9877	Hancock	01-02
34	B 970123	Coker9803/Coker9134	Hancock	01-02
35	B 970051	Coker9907/IL84-3010	Hancock	01-02
36	961337A13-7-3	91213//92823/9218/3/P107	Ohm	01-02
37	92226E2-5-3	86982/844030//86350/831800	Ohm	01-02
38	Y98-912	XY89-7A1/Y92-21	Moreno-Sevilla	01-02
39	Z98-919	P2580/U89-6A	Moreno-Sevilla	01-02
40	Z98*912	P2580/U89-6A	Moreno-Sevilla	01-02
41	AR 850-1-1	Verne/Ceruga 5	Bacon	01-02
42	AR 910-9-1	AR369-4-2/Bayles	Bacon	01-02
43	T 126	Foster/T814	Wilson	01-02
44	T 127	GA84-1114/2*T814	Wilson	01-02

LOCATION NOTES

Bay, Arkansas

Cooperators: June Hancock, Craig Allen, David Hill
Syngenta Seeds
Planted: October 9, 2001
Harvested: June 18, 2002
Comments: Plots received 6 inches of rain on October 10. Stands were very erratic. Generally wet conditions all through season. April 30 hail storm hit plots with golf ball size stones with considerable damage to heads and stems.

Keiser, Arkansas

Cooperators: Robert Bacon, John Kelly
University of Arkansas
Planted: October 24, 2001
Harvested: June 24, 2002
Fertilizer: 175 N
Comments: Very wet year lowered yields.

Fayetteville, Kibler, Clay County Jackson County, Arkansas

Cooperators: Gene Milus
University of Arkansas
Comments: Freeze damage at Fayetteville was rated 0-2 with 0=no damage. Kibler location with inoculated with leaf rust TNRL. Green leaves rating at Kibler was Septoria tritici blotch as the principal leaf disease, but also some stripe rust, leaf rust, and BYD. Fayetteville location was inoculated with stripe rust from year 2000 field collection. Spindle streak at Clay County rated 0-9 with 0=no symptoms and 3 or higher were susceptible. Soilborne and spindle streak at Jackson County were rated 0-9 with 0=no symptoms and 5 or higher were susceptible.

New Castle County, Delaware

Cooperators: Bob Uniatowski
University of Delaware
Planted: October 24, 2001
Harvested: July 26, 2002
Fertilizer: 120-36-54

Quincy, Florida

Cooperators: Ronald D. Barnett, Lloyd Schell
University of Florida
Planted: November 16, 2001
Harvested: June 4, 2002
Fertilizer: 75-50-75
Comments: Very poor growing season, too warm in January and February, some freeze damage in March after jointing, too hot in April, plants died before maturity from diseases, rain, and high temperatures.

Griffin, Georgia

Cooperators: Jerry Johnson, Barry Cunfer, Dan Bland
University of Georgia
Planted: October 30, 2001
Harvested: May 29, 2002
Fertilizer: 25-50-75, 70 N topdress

Aberdeen, Idaho

Cooperators: Charles Erickson, Scott McNeil, Harold Bockelman
USDA-ARS, National Small Grains Collection
Planted: September 20, 2001
Harvested: August 2, 2002
Fertilizer: 30-0-0

Brownstown, Illinois

Cooperators: Frederick L. Kolb, N.J. Smith, L.K. Boze
University of Illinois
Planted: October 4, 2001
Harvested: June 24, 2002
Fertilizer: 40 N fall, 60 N spring, P & K ok
Comments: Mild winter, wet early spring. Some scab and Septoria leaf blight at this location.

Urbana, Illinois

Cooperators: Frederick L. Kolb, N.J. Smith, L.K. Boze
University of Illinois
Planted: September 28, 2001
Harvested: July 2, 2002
Fertilizer: 40 N fall, 60 N spring, P & K ok
Comments: Mild winter, wet spring. SBMV ratings from 3' long rows in SBMV nursery. BYDV ratings and dwarfing based on two reps of PAV-IL-BYDV inoculated hills. Scab evaluations from misted, inoculated nursery.

Delphi, Indiana

Cooperators: Sam Brown
Genesis Seed Research
Planted: October 30, 2001
Harvested: July 15, 2002
Fertilizer: 100 N spring
Comments: Late planting, wet October, but good stand establishment. These were observation plots, seeded at 90#/acre. Very mild winter, cool spring, ample moisture supplies, limited BYDV pressure here. Leaf rust notes that show resistance may have been escapes as they may have matured early as it became hot and very dry.

Greensburg, Indiana

Cooperators: Sam Brown
Genesis Seed Research
Planted: October 2, 2001
Harvested: June 30, 2002
Fertilizer: 92 N spring
Comments: Fair stand establishment due to rains after planting. Mild winter possibly having BYD infection in the fall. Very wet cool spring, again with BYD pressure, spring freeze damage and topped with head scab. Plots were a mess.

Lafayette, Indiana

Cooperators: Benjamin Moreno-Sevilla
Western Plant Breeders
Comments: Rhizoctonia was scored on a single observation plot at Lafayette.

Wabash, Indiana

Cooperators: Gordon Cisar
Cargill-Goertzen Seed Research
Planted: October 4, 2001
Harvested: July 9, 2002

West Lafayette, Indiana

Cooperators: Herb Ohm
Purdue University
Planted: September 27, 2001
Harvested: July 1, 2002
Fertilizer: 35-90-0 fall, 100-0-0 spring
Comments: Excellent stand establishment; long, warm fall, but little fall disease establishment; very mild winter; little disease. Warm and dry weather during last two weeks of grain fill, so some shriveled kernels in later lines.

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
Comments: Test site received several inches of rain at planting and the seedlings suffocated. No data to report.

Manhattan, Kansas

Cooperators: Allan Fritz
Kansas State University
Comments: Nursery was not harvested. A 90 to 3 temperature swing in March caused significant damage to the early starters.

Parsons, Kansas

Cooperators: Allan Fritz
Kansas State University
Comments: Not a great nursery as we had spotty stands in the fall, a ton of BYDV, and too much rain during harvest. Results reported are from analysis by nearest neighbors.

Winfield, Kansas

Cooperators: Sid Perry
Cargill-Goertzen Seed Research
Planted: September 25, 2002
Harvested: June 17, 2002

Wichita, Kansas

Cooperators: Jim Wilson
Trio Research
Planted: October 3, 2001
Harvested: June 26, 2002
Fertilizer: 60 N
Comments: Very warm winter. Erect types were frosted back with some winter damage.

Lexington, Kentucky

Cooperators: David Van Sanford
University of Kentucky
Comments: Location was besieged by BYDV and severe freeze damage, so the nursery was not harvested.

Logan County, Kentucky

Cooperators: David Van Sanford
University of Kentucky
Planted: October 29, 2001
Harvested: June 20, 2002
Fertilizer: 110 N in split application, P & K acc. to soil test
Comments: An up and down year in Kentucky. Lots of moisture early and some scab, though much less than was anticipated. Good test weights and acceptable yields were recorded throughout most of western Kentucky.

Baton Rouge, Louisiana

Cooperators: Steve Harrison
Louisiana State University
Planted: November 5, 2001
Comments: Leaf blotch may include some bacterial streak and miscellaneous – rated by Gene Milus. Missing data due to failure to vernalize. NV=non-vernalized, PV=partial with some heading, V=fully vernalized. Leaf rust ratings on NV and PV plots may be quirky at best. All ‘adapted’ entries headed first week of April.

Clarksville, Maryland

Cooperators: Jose Costa, Aaron Cooper
University of Maryland
Planted: October 4, 2001
Harvested: June 25, 2002
Fertilizer: 78 N
Comments: Uneven fertility caused high yield CV.

Climax, Michigan

Cooperators: Benjamin Moreno-Sevilla
Western Plant Breeders
Planted: October 20, 2001
Harvested: July 12, 2002
Comments: BYD scores are on a scale of 1-5 with 1=best. Test weight was taken directly in the combine weighing system and should be treated as an estimate since no grain was saved.

Ingham County, Michigan

Cooperators: Rick Ward, Lee Siler
Michigan State University
Fertilizer: 90 N spring

St. Paul, Minnesota

Cooperators: Dave Long, Don McVey
USDA-ARS Cereal Disease Laboratory
Comments: Seedling and adult plant reaction to leaf rust and stem rust.

Columbia, Missouri

Cooperators: Anne L. McKendry, David N. Tague
University of Missouri
Planted: September 27, 2001
Harvested: June 30, 2002
Fertilizer: 40-80 split N
Comments: Freeze damage from record low temperatures in late March after generally mild winter. Wheat spindle streak and BYD were found serologically in samples from same field. Heavy rain during grain fill period, stopped before physiological maturity, grain unweathered. Missouri had the second wettest May on record.

Lincoln, Nebraska

Cooperators: Stephen Baenziger
University of Nebraska
Comments: The yields were very good this year.

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 4, 2001
Harvested: July 22, 2002
Fertilizer: 20-40-40 + 100# amm. nitrate

Plymouth, North Carolina

Cooperators: Paul Murphy
North Carolina State University
Planted: November 7, 2001
Harvested: June 7, 2002
Fertilizer: 130 N
Comments: Very mild fall and winter. High temperatures in May hastened maturity by one week. Leaf rust overwintered at site. Plymouth was unforgiving of leaf rust susceptibility this year.

Raleigh, North Carolina

Cooperators:

Lynda Whitcher, David Marshall
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:

Hal Lafever, Rob Gooding
Sunbeam Extract Co.

Comments:

Severe lodging occurred early in the heading season.

Wooster, Ohio

Cooperators:

Clay Sneller
Ohio State University, OARDC

Comments:

Mild winter and mild disease pressure.

Wooster, Ohio

Cooperators:

Charles Gaines
USDA-ARS Soft Wheat Quality Lab

Comments:

Quality data.

Enid, Oklahoma

Cooperators:

Brett Carver
Oklahoma State University

Comments:

Plots were lost to severe drought and then blow-out.

Nairn, Ontario

Cooperators:

Mark Etienne, Les Shugar
Hyland Seeds

Planted:

October 22, 2001

Fertilizer:

12-48-48 fall, 34-0-0 spring

Comments:

Planted a week later than normal for this area. Open fall that allowed for good establishment up to mid-December. Above average temperatures over winter with below

average precipitation. Good overall disease pressure. No 'visual' damage from Fusarium – most escaped infection.

Ridgetown, Ontario

Cooperators: Arend E. Smid
Ridgetown College, University of Guelph
Planted: October 3, 2001
Harvested: July 22, 2002
Fertilizer: 12-48-48, topdress 55 N as amm nitrate
Comments: No winter kill on account of mild winter. Excellent growing conditions. Little or no rain after May.

Knoxville, Tennessee

Cooperators: Dennis West
University of Tennessee
Planted: October 17, 2001
Harvested: June 17, 2002
Fertilizer: 60-45-45
Comments: Dry for six weeks after planting resulting in poor stands. Estimate of stand percent (% ground cover) on April 12, tillering was not adequate to compensate for stand differences in plots with low stands. Late freeze and disease further reduced yields.

Blacksburg, Virginia

Cooperators: Carl A. Griffey, T. Pridgen, W. Rohrer
Virginia Tech
Planted: October 11, 2002
Harvested: July 6, 2002
Fertilizer: 25-80-100 on Oct. 1, 85-0-0 on Apr. 5
Comments: 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).

Warsaw, Virginia

Cooperators: Carl A. Griffey, J. Kenner
Virginia Tech
Planted: October 17, 2001
Harvested: June 19, 2002
Fertilizer: 30-80-80-5 on Oct. 11, 55# 24-0-0-3 on Feb. 6
Comments: Early plant height serves as an indicator for spring growth type. 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).

Pullman, Washington

Cooperators:

Kim Campbell, Xianming Chen
USDA-ARS, Wheat Genetics, Quality, Physiology &
Disease

Comments:

Adult stripe rust reactions recorded on July 5 at the soft
dough to maturing stages. Due to dry spots and poor
growth in part of plots some zero readings are not reliable
and therefore, excluded from the overall readings.

Arlington, Wisconsin

Cooperators:

Joe Lauer, Mark Martinka
University of Wisconsin

Planted:

September 27, 2001

Harvested:

July 19, 2002

Fertilizer:

60 N mid-April

Comments:

Isolated severe lodging affected yields on several entries,
thus trial had higher CV and LSD.

YIELD (bu/acre)

		Bay AR		Keiser AR		New Castle DE		Quincy FL		Griffin GA		Aberdeen ID		Brownstown IL	
		#	rank	#	rank	#@	rank		rank		rank		rank	#@	rank
1	Caldwell	30.4	43	53.2	34	74.0	42	14.1	34	28.0	42	85.5	43	54.5	38
2	Foster	38.6	26	58.1	22	91.0	15	13.8	35	38.5	30	101.4	26	61.1	19
3	Patton	35.8	31	54.9	31	93.4	10	24.3	19	39.1	26	98.6	31	54.6	37
4	Roane	23.3	44	64.8	6	83.1	27	17.9	30	61.0	1	87.8	39	62.9	13
5	VA 98W-593	48.8	5	63.8	7	103.3	3	19.9	27	32.5	39	95.5	36	58.5	29
6	KY 90C-292-4-1	46.9	8	61.7	10	99.7	4	26.9	13	31.0	40	113.0	9	60.4	22
7	KY 90C-054-6	43.8	14	58.9	17	82.7	29	13.7	36	33.2	36	115.8	3	68.6	3
8	AR 839-28-1-2	52.9	2	58.6	19	76.1	38	31.2	4	38.0	31	100.9	28	56.5	34
9	VA 98W-591	52.4	3	65.5	5	98.8	5	27.3	11	30.2	41	83.8	44	68.4	4
10	T 124	47.8	6	68.1	2	88.6	19	26.2	15	26.6	43	105.4	21	58.8	27
11	MO 960903	46.1	10	60.0	13	95.3	9	20.5	25	37.2	32	95.0	37	57.9	31
12	MO 980525	42.7	17	59.9	14	96.0	8	28.5	9	32.9	38	107.5	16	63.2	12
13	92212RC4-3-137-2	30.4	42	53.2	35	78.7	35	31.0	6	40.0	25	97.7	32	55.2	36
14	OH 684	47.4	7	59.0	16	81.7	31	19.5	29	38.6	29	109.8	14	59.6	24
15	G 97041	33.7	35	57.5	25	88.9	17	16.7	33	33.3	35	115.4	5	64.2	11
16	G 86244	33.9	34	57.5	26	87.0	21	24.6	18	33.1	37	97.0	33	61.8	16
17	G 96332	40.5	23	54.0	33	75.5	40	22.7	21	41.9	23	90.1	38	58.7	28
18	IL 96-346	46.5	9	58.6	20	75.7	39	10.3	41	45.1	17	121.3	1	68.9	2
19	IL 97-2422	41.7	20	51.2	37	78.3	37	13.5	37	47.3	12	114.1	8	60.6	21
20	OH 685	36.5	30	45.5	42	86.0	22	21.4	22	43.3	21	85.7	42	54.3	40
21	OH 669	32.2	41	43.4	44	80.9	33	1.3	44	45.7	15	111.1	12	54.5	39
22	KY 90C-42-37-1	42.6	18	51.1	38	92.9	13	25.7	16	42.8	22	104.6	23	59.2	25
23	MO 980725	39.4	24	65.9	4	83.5	25	23.4	20	41.7	24	98.9	30	62.8	14
24	M94*1549-1	41.5	21	56.6	28	97.7	6	21.1	24	16.0	44	102.9	25	50.7	44
25	M98*2152	43.1	15	70.7	1	92.2	14	21.2	23	48.6	8	104.1	24	64.3	10
26	M98-2023	55.7	1	51.5	36	88.5	20	27.0	12	47.4	10	106.4	18	70.0	1
27	TW 044-094	33.1	38	61.3	12	71.2	44	5.9	43	38.7	28	117.0	2	65.2	9
28	TW 043-008	33.7	36	51.0	39	93.0	12	13.1	39	44.2	18	115.5	4	61.0	20
29	Daisy exp.	33.3	37	46.6	41	74.1	41	10.4	40	36.8	34	110.5	13	51.5	43
30	Husky exp.	45.8	11	58.7	18	81.0	32	10.3	42	45.5	16	114.7	7	68.3	5
31	Jekyl exp.	32.3	40	45.3	43	110.4	1	13.2	38	37.1	33	96.8	34	66.9	6
32	VA 98W-706	45.6	12	62.1	9	107.6	2	30.8	7	47.4	11	104.6	22	59.1	26
33	B 961378	35.3	32	58.1	23	93.4	11	29.8	8	46.1	14	86.4	41	65.7	7
34	B 970123	41.0	22	58.2	21	83.3	26	24.8	17	53.4	6	105.6	20	62.7	15
35	B 970051	38.1	28	56.6	29	91.0	16	32.4	3	48.2	9	107.4	17	65.6	8
36	961337A13-7-3	35.0	33	49.0	40	78.6	36	16.8	31	46.5	13	87.8	40	54.2	41
37	92226E2-5-3	44.2	13	59.8	15	81.9	30	28.4	10	59.5	2	101.0	27	55.7	35
38	Y98-912	38.2	27	54.1	32	83.0	28	16.8	32	50.8	7	105.9	19	56.9	33
39	Z98-919	50.2	4	63.3	8	88.9	18	19.6	28	56.5	5	111.3	11	59.7	23
40	Z98*912	42.5	19	58.0	24	85.0	23	36.5	2	38.9	27	111.8	10	57.2	32
41	AR 850-1-1	42.8	16	56.6	30	78.8	34	36.9	1	43.4	19	100.3	29	53.5	42
42	AR 910-9-1	32.7	39	61.6	11	97.4	7	31.2	5	57.5	4	95.9	35	61.5	17
43	T 126	36.7	29	57.3	27	73.1	43	26.9	14	57.9	3	109.3	15	58.1	30
44	T 127	38.8	25	66.5	3	84.9	24	20.2	26	43.4	20	115.3	6	61.3	18
LOCATION MEANS		40.3		57.4		87.0		21.5		41.9		103.3		60.3	
LSD (.05)		9.8		10.2		9.1		6.8				19.35		5.3	
CV %		15		10.9		6.4		15.7				13.64		6.5	
REPS		3		3		3		2		1		4		3	
Harvest Plot Size (sq.ft.)		63.4		77.1		56.35		60		50		22.17		32	

YIELD (bu/acre)

		Urbana		Delphi		Greensburg		Wabash		W. Lafayette		Parsons		Winfield	
		IL		IN		IN		IN		IN		KS		KS	
		#@	rank	#	rank	#	rank	#	rank	#@	rank		rank		rank
1	Caldwell	42.4	44	94.8	25	49.0	27	98.9	13	82.3	22	37.4	26	36.9	9
2	Foster	76.9	9	92.5	29	60.7	12	89.1	34	81.1	25	34.0	37	30.4	23
3	Patton	68.6	28	96.7	22	58.6	14	102.6	2	88.0	9	43.6	15	35.6	12
4	Roane	79.3	7	96.9	21	52.8	22	94.8	22	88.7	5	51.4	1	32.1	19
5	VA 98W-593	74.8	13	100.6	13	40.7	37	99.9	8	77.7	36	44.4	13	47.4	1
6	KY 90C-292-4-1	69.1	25	102.6	10	35.9	43	93.9	26	85.8	13	42.4	17	31.5	21
7	KY 90C-054-6	61.6	37	104.4	7	52.0	23	76.3	43	83.6	18	45.7	10	20.3	42
8	AR 839-28-1-2	76.3	10	90.6	33	38.9	38	99.2	11	79.7	27	44.1	14	28.5	29
9	VA 98W-591	75.9	11	98.1	18	41.7	36	99.1	12	84.1	16	35.5	32	40.1	6
10	T 124	67.3	29	97.8	19	50.7	25	94.1	25	84.7	15	39.3	22	24.3	40
11	MO 960903	68.9	27	97.0	20	55.1	18	99.7	9	81.7	23	37.6	24	31.8	20
12	MO 980525	51.7	42	94.6	26	68.3	8	102.3	3	71.4	41	50.2	3	33.8	17
13	92212RC4-3-137-2	65.4	33	89.9	35	45.6	34	99.9	7	77.1	38	46.7	6	29.5	26
14	OH 684	72.7	20	84.5	40	51.3	24	93.1	27	79.6	30	40.3	20	25.8	36
15	G 97041	48.8	43	99.0	14	47.3	30	96.2	20	84.1	17	37.3	27	26.8	32
16	G 86244	73.5	18	107.9	3	55.0	19	91.9	30	88.2	7	31.8	40	28.5	28
17	G 96332	60.6	39	101.6	11	48.4	29	83.2	40	79.7	29	45.9	8	30.2	24
18	IL 96-346	73.9	16	94.0	27	66.2	9	98.3	16	80.0	26	45.6	12	34.4	15
19	IL 97-2422	75.3	12	98.5	17	65.2	10	95.4	21	87.0	10	37.7	23	38.2	8
20	OH 685	56.9	40	90.4	34	49.3	26	87.7	37	83.6	19	34.5	34	26.7	33
21	OH 669	78.9	8	91.6	30	64.1	11	97.8	17	76.3	39	28.5	44	22.1	41
22	KY 90C-42-37-1	66.2	32	89.3	36	44.8	35	74.3	44	78.4	34	36.6	28	34.9	14
23	MO 980725	56.8	41	80.1	43	72.7	4	84.4	39	78.1	35	50.9	2	46.0	3
24	M94*1549-1	72.4	21	85.3	39	46.0	32	92.3	28	67.2	43	45.7	9	30.6	22
25	M98*2152	88.9	1	103.6	8	76.7	1	111.0	1	96.5	1	36.0	31	40.5	5
26	M98-2023	73.6	17	105.1	6	69.2	7	98.6	14	93.3	3	49.9	4	25.1	39
27	TW 044-094	65.4	34	95.9	23	71.1	5	94.2	24	86.7	11	34.1	36	16.3	44
28	TW 043-008	69.3	24	85.4	38	53.2	21	88.5	35	83.0	21	29.1	43	36.0	11
29	Daisy exp.	60.7	38	91.3	32	46.4	31	89.3	33	73.0	40	30.5	41	25.5	37
30	Husky exp.	66.3	31	91.4	31	55.3	17	90.7	32	84.7	14	33.6	38	29.8	25
31	Jekyl exp.	70.6	22	103.0	9	72.8	3	97.8	18	77.2	37	37.5	25	27.3	30
32	VA 98W-706	74.2	15	107.6	4	36.6	42	99.6	10	89.3	4	30.4	42	33.6	18
33	B 961378	74.8	14	98.7	15	70.7	6	94.2	23	68.7	42	34.3	35	40.8	4
34	B 970123	70.6	23	93.4	28	38.2	40	86.0	38	79.7	28	36.5	29	26.8	31
35	B 970051	79.7	6	98.7	16	76.0	2	90.9	31	78.5	33	49.7	5	25.8	35
36	961337A13-7-3	82.6	3	82.0	42	53.3	20	98.5	15	81.3	24	40.3	21	34.0	16
37	92226E2-5-3	72.8	19	85.6	37	31.4	44	92.2	29	94.6	2	34.8	33	46.7	2
38	Y98-912	87.7	2	114.8	1	57.1	16	100.2	6	86.6	12	36.2	30	35.3	13
39	Z98-919	81.0	4	106.3	5	59.0	13	101.2	4	88.2	8	45.6	11	25.3	38
40	Z98*912	67.0	30	100.9	12	45.9	33	87.8	36	79.6	31	32.3	39	36.7	10
41	AR 850-1-1	64.7	35	83.0	41	38.8	39	78.6	41	65.0	44	41.9	18	17.3	43
42	AR 910-9-1	63.2	36	114.6	2	49.0	28	97.6	19	83.3	20	42.7	16	39.1	7
43	T 126	69.0	26	95.5	24	38.1	41	77.6	42	78.5	32	41.4	19	26.6	34
44	T 127	80.0	5	75.6	44	58.2	15	101.0	5	88.6	6	46.0	7	29.4	27
LOCATION MEANS		69.9		95.7		53.6		93.6		81.9		39.8		31.5	
LSD (.05)		9.1				7.43		6.9		6.7		6.16		5.62	
CV %		8				10.12		12.4		5.9		11.42		10.6	
REPS		3		2		2		2		4				2	
Harvest Plot Size (sq.ft.)		32		32		32								50	

YIELD (bu/acre)

		Wichita		Logan Co.		Clarksville		Climax		Ingham Co.		Columbia		Plymouth	
		KS		KY		MD		MI		MI		MO		NC	
		#@		#@		#		#@		#@		#@		#@	
		rank		rank		rank		rank		rank		rank		rank	
1	Caldwell	42.0	44	65.4	41	61.0	39	75.1	38	71.4	37	41.6	43	49.3	15
2	Foster	47.6	35	89.0	4	63.7	33	77.1	31	76.2	30	53.1	19	42.3	28
3	Patton	55.3	24	77.3	20	76.7	8	80.8	20	79.7	24	57.2	8	56.3	5
4	Roane	53.3	26	77.1	22	62.7	37	85.0	11	85.3	7	52.7	22	52.8	10
5	VA 98W-593	69.6	2	82.6	13	74.3	14	79.6	27	88.7	3	54.2	15	57.8	3
6	KY 90C-292-4-1	48.8	34	76.7	24	79.2	5	72.2	43	84.8	9	49.9	30	37.9	33
7	KY 90C-054-6	46.2	39	67.9	39	82.0	2	79.3	28	84.5	10	48.9	31	37.1	35
8	AR 839-28-1-2	47.0	37	71.0	36	61.6	38	73.6	42	74.8	32	51.5	27	44.3	25
9	VA 98W-591	66.8	4	77.3	21	84.2	1	79.9	25	89.8	1	51.7	25	52.6	11
10	T 124	57.0	20	72.0	33	62.7	36	80.0	23	75.2	31	53.1	20	50.9	12
11	MO 960903	64.8	7	76.0	27	73.3	16	84.7	12	85.3	8	61.3	3	53.5	9
12	MO 980525	66.0	6	87.3	6	68.6	21	86.8	7	76.3	29	71.6	1	32.9	36
13	92212RC4-3-137-2	49.5	32	76.3	25	56.1	43	74.9	41	84.5	11	54.9	12	48.2	16
14	OH 684	57.9	18	85.5	10	71.0	18	76.3	35	81.5	21	51.3	28	26.3	43
15	G 97041	63.3	8	79.8	17	64.4	32	82.6	16	68.0	42	47.8	33	40.7	31
16	G 86244	52.8	27	86.8	7	68.1	23	80.0	24	70.0	39	52.8	21	45.9	20
17	G 96332	55.2	25	77.1	23	65.7	29	76.2	36	84.5	12	47.8	34	42.0	29
18	IL 96-346	62.4	11	91.5	3	69.8	20	82.7	15	61.9	44	57.7	7	46.6	18
19	IL 97-2422	60.0	16	88.2	5	66.4	28	80.3	22	70.9	38	57.0	9	55.0	7
20	OH 685	46.1	40	71.0	37	75.0	11	75.7	37	78.0	27	53.8	17	37.6	34
21	OH 669	49.1	33	84.1	11	60.7	41	82.1	17	82.5	18	43.0	42	32.3	37
22	KY 90C-42-37-1	56.1	22	83.0	12	74.3	13	77.1	32	82.8	16	51.6	26	54.1	8
23	MO 980725	70.6	1	81.5	16	67.8	25	85.5	9	68.7	40	61.4	2	26.8	42
24	M94*1549-1	50.2	30	71.2	35	74.6	12	80.3	21	81.2	22	46.0	38	43.5	27
25	M98*2152	66.2	5	103.0	1	67.8	24	90.4	3	87.3	5	47.7	35	43.9	26
26	M98-2023	61.8	12	86.6	9	79.3	4	94.4	1	82.7	17	59.8	4	44.8	23
27	TW 044-094	44.3	43	62.7	42	66.8	27	86.9	6	80.6	23	52.5	23	30.2	40
28	TW 043-008	52.0	28	81.6	15	65.5	31	89.3	5	83.1	14	50.7	29	29.1	41
29	Daisy exp.	44.8	41	72.3	32	63.1	34	76.4	34	87.4	4	44.0	40	31.9	38
30	Husky exp.	62.5	10	92.4	2	74.0	15	81.6	18	78.2	25	53.7	18	21.7	44
31	Jekyl exp.	61.5	13	78.1	19	76.4	9	85.5	10	85.5	6	48.1	32	45.6	22
32	VA 98W-706	44.6	42	86.7	8	80.6	3	79.6	26	82.4	20	54.2	16	50.6	13
33	B 961378	57.4	19	73.7	31	60.5	42	68.6	44	73.3	33	47.4	36	57.6	4
34	B 970123	56.3	21	67.9	40	75.5	10	76.8	33	82.5	19	51.9	24	47.1	17
35	B 970051	49.8	31	74.0	30	68.3	22	81.3	19	68.3	41	56.1	10	44.6	24
36	961337A13-7-3	47.5	36	71.7	34	65.5	30	75.1	39	73.3	34	54.5	14	46.5	19
37	92226E2-5-3	67.2	3	82.4	14	77.1	7	79.0	29	89.5	2	59.6	5	66.8	1
38	Y98-912	61.2	14	79.4	18	62.9	35	92.8	2	83.1	15	54.6	13	49.6	14
39	Z98-919	50.5	29	76.1	26	72.8	17	84.5	13	84.0	13	55.9	11	62.5	2
40	Z98*912	61.0	15	74.1	29	60.9	40	77.5	30	72.4	35	47.1	37	30.8	39
41	AR 850-1-1	46.9	38	51.0	43	53.1	44	75.1	40	63.5	43	43.4	41	55.3	6
42	AR 910-9-1	56.0	23	68.7	38	67.2	26	83.9	14	78.2	26	37.5	44	45.9	21
43	T 126	62.6	9	48.3	44	70.9	19	89.7	4	77.0	28	44.6	39	40.9	30
44	T 127	59.5	17	74.8	28	77.7	6	85.9	8	72.1	36	58.3	6	40.2	32
LOCATION MEANS		55.7		77.3		69.3		81.0		78.9		52.1		44.4	
LSD (.05)		17		10.9		17.7		4.77		4.3		6		7.7	
CV %		11.4		8.4		15.7		5.4		2.6		6.2		8.7	
REPS		2		2		3		2		2		3		2	
Harvest Plot Size (sq.ft.)		40		40		55		50				55		55	

YIELD (bu/acre)

		Lincoln NE			Ithaca NY #@			Smithville OH #			Wooster OH #@			Nairn ON #@			Ridgetown ON #@			Knoxville TN #	
			rank			rank			rank			rank			rank			rank			rank
1	Caldwell				64.1	43		27.7	43		60.5	43		77.5	42		86	42		36.2	24
2	Foster	73.3	38		77.5	30		58.6	10		73.9	35		81.5	38		95	37		35.4	28
3	Patton	83.6	17		85.7	16		71.2	1		87.3	7		88.9	23		114	9		35.5	27
4	Roane	85.0	13		87.9	13		37.1	37		68.2	40		94.1	9		117	4		52.8	2
5	VA 98W-593	85.0	14		75.4	34		43.0	27		76.9	24		97.8	3		112	12		58.0	1
6	KY 90C-292-4-1	80.5	25		82.2	23		42.8	29		87.4	6		90.9	18		122	1		41.9	11
7	KY 90C-054-6	82.7	19		94.2	4		70.3	3		74.1	32		92.6	12		111	17		46.3	7
8	AR 839-28-1-2	84.7	15		78.3	28		39.4	35		76.1	27		86.1	29		109	22		37.6	20
9	VA 98W-591	86.5	10		92.8	5		27.6	44		75.2	30		95.7	7		113	11		48.3	5
10	T 124	92.9	5		75.5	33		41.9	30		81.5	17		83.3	31		94	39		31.7	34
11	MO 960903	81.1	24		76.7	32		40.2	32		79.2	20		92.1	14		112	13		39.0	19
12	MO 980525	81.6	23		81.8	24		50.0	21		82.1	14		87.4	26		108	24		41.2	13
13	92212RC4-3-137-2	68.1	41		83.6	19		30.9	40		78.5	23		82.6	33		114	10		29.4	40
14	OH 684	78.1	28		83.4	20		63.7	7		85.3	12		90.4	20		110	18		24.6	43
15	G 97041	76.4	36		74.3	36		41.2	31		69.2	39		78.5	41		95	38		32.3	32
16	G 86244	76.6	34		67.0	41		51.2	19		74.1	33		86.2	28		101	31		39.4	15
17	G 96332	76.8	33		70.9	37		50.3	20		76.8	26		81.8	37		97	34		34.3	30
18	IL 96-346	98.0	2		66.5	42		48.2	23		71.4	38		80.7	39		97	35		34.5	29
19	IL 97-2422	75.7	37		84.9	18		53.5	16		86.0	10		86.2	27		108	25		30.2	39
20	OH 685	67.0	42		88.1	12		57.5	12		78.5	21		92.2	13		105	27		32.1	33
21	OH 669	77.8	29		83.2	22		43.0	28		80.8	18		90.5	19		110	19		32.7	31
22	KY 90C-42-37-1	77.8	30		85.4	17		55.8	15		72.3	36		66.4	44		110	20		47.3	6
23	MO 980725	81.9	22		70.6	38		38.7	36		74.0	34		87.7	25		107	26		31.6	36
24	M94*1549-1	76.6	35		81.6	25		53.3	17		65.9	41		91.4	16		112	14		39.2	16
25	M98*2152	95.6	4		85.8	15		58.4	11		94.0	2		95.0	8		119	2		52.2	3
26	M98-2023	99.9	1		90.1	8		47.4	25		86.6	9		93.8	10		116	6		45.8	8
27	TW 044-094	84.6	16		95.1	3		39.4	34		88.8	4		97.4	4		112	15		37.4	21
28	TW 043-008	90.4	6		92.7	6		47.7	24		81.9	15		88.2	24		112	16		44.8	9
29	Daisy exp.	80.0	26		88.5	11		63.7	8		80.7	19		79.1	40		105	28		24.2	44
30	Husky exp.	83.2	18		80.1	27		60.4	9		81.9	16		81.9	35		93	41		35.8	25
31	Jekyl exp.	73.3	39		98.7	2		52.3	18		87.7	5		99.9	2		118	3		41.8	12
32	VA 98W-706	82.5	20		85.9	14		36.7	38		95.4	1		89.4	21		117	5		43.2	10
33	B 961378	77.2	31		67.9	40		33.8	39		62.8	42		83.0	32		97	36		30.6	38
34	B 970123	86.5	11		75.1	35		44.6	26		72.2	37		89.0	22		94	40		36.5	23
35	B 970051	82.3	21		83.3	21		56.6	13		75.2	29		74.0	43		99	32		39.2	17
36	961337A13-7-3	78.8	27		70.5	39		28.2	42		76.8	25		81.8	36		105	29		35.6	26
37	92226E2-5-3	85.1	12		98.8	1		49.3	22		85.4	11		91.4	17		116	7		40.1	14
38	Y98-912	89.7	7		89.3	10		69.3	4		89.0	3		105.0	1		115	8		39.2	18
39	Z98-919	97.1	3		91.7	7		65.4	5		85.2	13		95.9	6		110	21		49.0	4
40	Z98*912	87.4	8		77.4	31		56.4	14		78.5	22		93.4	11		104	30		28.5	41
41	AR 850-1-1	61.8	43		59.2	44		29.2	41		47.3	44		83.9	30		83	44		30.8	37
42	AR 910-9-1	77.0	32		80.5	26		64.0	6		86.6	8		96.1	5		109	23		37.0	22
43	T 126	70.7	40		89.5	9		40.0	33		75.3	28		91.7	15		98	33		27.8	42
44	T 127	86.6	9		78.0	29		71.0	2		74.3	31		82.5	34		84	43		31.7	35
LOCATION MEANS		81.8			81.6			48.9			78.2			88.1			106.0			37.8	
LSD (.05)					9						6.9			6.86			8			13.6	
CV %					5.96						5.4			4.8			5.2			22.1	
REPS					3			2						3			4			3	
Harvest Plot Size (sq.ft.)					41			10						44.55			48.28			36	

YIELD (bu/acre)

		Blacksburg		Warsaw		Arlington		ENTRY MEANS		ENTRY MEANS	
		VA		VA		WI		ALL LOCATIONS		IN-REGION	
		#@	rank	#	rank	#@	rank		rank	#	rank
1	Caldwell	64.3	39	79.1	34	73.4	44	58.5	43	63.0	43
2	Foster	78.6	6	81.0	29	92.6	23	66.6	30	71.9	23
3	Patton	75.4	18	84.1	24	85.6	35	70.6	10	75.4	11
4	Roane	82.6	2	79.7	33	80.9	40	69.4	14	73.4	16
5	VA 98W-593	80.6	3	114.6	1	100.9	9	72.9	4	77.7	4
6	KY 90C-292-4-1	72.6	25	90.5	13	92.5	25	69.5	13	74.1	14
7	KY 90C-054-6	76.6	14	91.0	11	101.8	6	69.3	17	74.6	12
8	AR 839-28-1-2	76.1	17	76.3	38	101.0	7	66.4	32	70.2	34
9	VA 98W-591	78.1	10	100.5	5	89.5	30	71.3	8	76.7	7
10	T 124	80.3	5	87.1	17	101.0	8	67.7	24	72.0	22
11	MO 960903	73.6	22	102.0	4	104.1	5	70.4	11	75.6	10
12	MO 980525	76.6	15	79.7	32	100.4	11	70.4	12	74.2	13
13	92212RC4-3-137-2	63.8	40	82.3	26	99.2	13	65.1	37	68.9	36
14	OH 684	77.4	12	84.2	23	96.7	20	68.0	22	72.4	20
15	G 97041	69.7	33	78.1	35	74.0	42	64.0	41	67.3	41
16	G 86244	73.8	21	81.2	27	81.8	39	66.5	31	71.5	26
17	G 96332	70.6	31	82.6	25	91.2	28	65.0	38	68.8	37
18	IL 96-346	61.7	43	77.7	36	90.3	29	68.3	21	70.8	31
19	IL 97-2422	70.8	30	80.7	30	91.5	27	69.3	16	73.4	15
20	OH 685	76.9	13	93.7	8	97.4	18	65.4	35	70.9	28
21	OH 669	76.3	16	91.8	10	88.0	32	65.7	34	70.9	30
22	KY 90C-42-37-1	72.0	28	90.2	14	73.4	43	66.9	28	70.6	32
23	MO 980725	72.5	26	81.2	28	92.6	24	67.2	27	69.6	35
24	M94*1549-1	65.8	36	89.6	15	98.1	17	66.0	33	71.0	27
25	M98*2152	80.6	4	88.7	16	99.9	12	76.5	1	81.7	1
26	M98-2023	86.4	1	94.7	7	104.4	4	75.3	2	79.9	2
27	TW 044-094	70.1	32	85.0	21	82.8	37	66.9	29	72.2	21
28	TW 043-008	78.4	7	91.0	12	91.8	26	68.6	19	72.7	18
29	Daisy exp.	65.2	37	80.1	31	82.4	38	62.9	42	67.1	42
30	Husky exp.	72.0	29	75.4	39	97.3	19	67.8	23	71.7	24
31	Jekyl exp.	78.2	8	85.8	19	96.5	21	71.0	9	77.3	6
32	VA 98W-706	72.2	27	104.8	3	98.5	15	72.0	7	77.5	5
33	B 961378	74.0	20	70.8	41	78.1	41	64.9	39	68.3	39
34	B 970123	78.2	9	98.7	6	98.9	14	67.5	26	70.9	29
35	B 970051	64.4	38	92.8	9	92.7	22	69.0	18	72.7	19
36	961337A13-7-3	68.9	34	84.9	22	87.7	33	64.3	40	68.4	38
37	92226E2-5-3	63.6	41	107.3	2	107.6	1	72.7	5	76.3	9
38	Y98-912	68.6	35	63.1	43	98.5	16	72.1	6	76.6	8
39	Z98-919	78.0	11	69.0	42	104.9	3	73.8	3	78.4	3
40	Z98*912	75.1	19	87.0	18	106.7	2	67.7	25	70.6	33
41	AR 850-1-1	56.6	44	46.2	44	83.9	36	57.1	44	59.3	44
42	AR 910-9-1	72.7	24	76.7	37	86.2	34	69.4	15	73.0	17
43	T 126	62.4	42	85.4	20	100.5	10	65.2	36	67.7	40
44	T 127	73.2	23	74.8	40	88.0	31	68.4	20	71.7	25
LOCATION MEANS		72.9		85.0		92.8					
LSD (.05)		6.8				17.7					
CV %		6.9				9.5					
REPS		3		1		2					
Harvest Plot Size (sq.ft.)		45		45		105					

YIELD (bu/acre)

		ENTRY MEANS	
		CV <10%	
		@	
			rank
1	Caldwell	67.9	43
2	Foster	78.6	27
3	Patton	83.6	13
4	Roane	84.2	10
5	VA 98W-593	85.0	9
6	KY 90C-292-4-1	84.0	11
7	KY 90C-054-6	81.6	17
8	AR 839-28-1-2	79.3	24
9	VA 98W-591	85.2	8
10	T 124	78.5	28
11	MO 960903	83.9	12
12	MO 980525	81.7	16
13	92212RC4-3-137-2	80.3	21
14	OH 684	81.0	18
15	G 97041	73.9	42
16	G 86244	78.4	30
17	G 96332	75.5	39
18	IL 96-346	76.5	36
19	IL 97-2422	82.1	15
20	OH 685	79.1	25
21	OH 669	80.2	22
22	KY 90C-42-37-1	79.1	26
23	MO 980725	77.8	32
24	M94*1549-1	79.3	23
25	M98*2152	89.8	1
26	M98-2023	88.4	2
27	TW 044-094	80.7	19
28	TW 043-008	82.9	14
29	Daisy exp.	75.4	40
30	Husky exp.	77.7	33
31	Jekyl exp.	87.2	3
32	VA 98W-706	86.8	5
33	B 961378	75.3	41
34	B 970123	77.5	35
35	B 970051	78.0	31
36	961337A13-7-3	77.6	34
37	92226E2-5-3	86.9	4
38	Y98-912	86.4	6
39	Z98-919	86.3	7
40	Z98*912	78.5	29
41	AR 850-1-1	66.5	44
42	AR 910-9-1	80.5	20
43	T 126	76.0	38
44	T 127	76.1	37

LOCATION MEANS

LSD (.05)

CV %

REPS

Harvest Plot Size (sq.ft.)

TEST WEIGHT (lbs/bu)

		Bay AR	Keiser AR	New Castle Co. DE	Quincy FL	Griffin GA
1	Caldwell	55.5	55.6	57.8	48.6	48.8
2	Foster	54.8	55.3	60.4	51.2	47.9
3	Patton	53.9	55.9	61.0	51.2	47.7
4	Roane	56.2	57.5	61.9	52.5	54.5
5	VA 98W-593	56.2	58.6	62.5	52.5	51.4
6	KY 90C-292-4-1	55.4	55.6	61.8	52.5	48.3
7	KY 90C-054-6	55.2	56.1	58.8	47.4	46.3
8	AR 839-28-1-2	54.6	55.7	58.0	52.5	54.2
9	VA 98W-591	56.9	58.5	62.4	52.5	48.3
10	T 124	53.2	55.0	59.6	49.9	43.5
11	MO 960903	53.4	56.5	60.2	49.9	46.5
12	MO 980525	55.1	58.1	60.5	51.2	50.9
13	92212RC4-3-137-2	54.1	53.7	58.3	51.2	42.9
14	OH 684	55.2	56.4	59.2	49.9	51.7
15	G 97041	55.4	56.5	60.8	49.9	49.9
16	G 86244	55.5	56.3	58.9	52.5	47.3
17	G 96332	54.9	55.8	58.0	51.2	50.4
18	IL 96-346	56.5	56.8	56.3	51.2	53.2
19	IL 97-2422	56.8	55.7	58.9	52.5	53.6
20	OH 685	55.3	54.9	57.8	49.9	51.8
21	OH 669	52.6	54.2	57.3		54.0
22	KY 90C-42-37-1	55.5	57.3	60.5	53.8	55.7
23	MO 980725	55.8	57.8	59.5	52.5	50.9
24	M94*1549-1	54.1	56.5	61.9	49.9	50.9
25	M98*2152	53.4	55.9	57.4	48.6	49.8
26	M98-2023	55.6	57.5	59.9	49.9	53.0
27	TW 044-094	55.5	57.2	55.9		50.6
28	TW 043-008	54.4	56.9	60.2	49.9	52.2
29	Daisy exp.	52.7	53.7	58.4	48.6	55.1
30	Husky exp.	56.1	55.1	60.6	43.5	51.8
31	Jekyl exp.	55.1	56.0	59.4	46.1	48.6
32	VA 98W-706	55.6	57.7	61.6	52.5	53.8
33	B 961378	54.5	55.2	59.1	53.8	51.3
34	B 970123	56.7	57.7	60.6	55.0	57.1
35	B 970051	54.5	56.8	57.6	51.2	48.1
36	961337A13-7-3	52.4	53.6	56.9	46.1	48.7
37	92226E2-5-3	54.2	54.6	60.3	47.4	51.3
38	Y98-912	56.1	57.5	59.9	52.5	43.3
39	Z98-919	54.0	56.3	58.3	49.9	53.9
40	Z98*912	54.5	55.4	55.6	52.5	49.9
41	AR 850-1-1	56.0	56.0	59.8	53.8	56.0
42	AR 910-9-1	54.0	57.1	60.7	53.8	51.8
43	T 126	56.3	56.8	56.9	52.5	55.9
44	T 127	52.6	54.8	55.5	48.6	49.9
LOCATION MEANS		54.9	56.2	59.2	50.8	50.7

TEST WEIGHT (lbs/bu)

		Aberdeen ID	Brownstown IL	Urbana IL	Greensburg IN	Wabash IN
1	Caldwell	59.1	56.4	57.5	58.7	61.4
2	Foster	58.0	57.0	59.8	59.8	58.2
3	Patton	58.1	56.3	57.5	59.6	58.6
4	Roane	59.6	58.6	62.1	62.6	62.0
5	VA 98W-593	60.5	59.0	62.8	61.6	54.9
6	KY 90C-292-4-1	58.4	55.3	60.2	57.6	58.3
7	KY 90C-054-6	55.9	56.4	57.7	57.1	56.2
8	AR 839-28-1-2	56.6	54.9	60.0	56.9	57.6
9	VA 98W-591	60.3	58.0	62.0	61.5	60.6
10	T 124	56.3	56.2	56.6	58.2	53.7
11	MO 960903	58.3	58.4	59.9	61.2	56.3
12	MO 980525	58.4	57.7	60.0	60.5	56.2
13	92212RC4-3-137-2	53.4	55.5	58.4	58.2	54.9
14	OH 684	57.7	55.5	59.4	61.3	59.4
15	G 97041	57.3	55.7	57.1	59.6	54.5
16	G 86244	57.6	56.5	60.1	57.6	56.1
17	G 96332	57.9	56.9	59.1	59.1	54.2
18	IL 96-346	58.2	56.6	60.2	57.9	54.4
19	IL 97-2422	57.9	58.4	60.8	60.1	58.0
20	OH 685	58.4	56.4	57.3	57.7	59.0
21	OH 669	58.3	56.4	59.4	57.6	56.1
22	KY 90C-42-37-1	57.7	56.1	58.9	57.4	55.5
23	MO 980725	58.1	57.6	59.6	58.0	57.5
24	M94*1549-1	57.8	56.0	59.7	55.4	58.7
25	M98*2152	55.0	54.3	59.3	55.4	59.3
26	M98-2023	58.6	56.5	60.0	58.2	60.4
27	TW 044-094	57.7	56.2	58.9	57.9	60.4
28	TW 043-008	59.7	56.4	59.3	59.9	58.9
29	Daisy exp.	57.0	54.9	57.5	56.8	55.2
30	Husky exp.	58.7	56.8	58.8	59.5	55.6
31	Jekyl exp.	57.2	56.3	59.8	56.8	59.0
32	VA 98W-706	59.0	57.3	59.7	58.8	61.0
33	B 961378	58.9	57.5	60.6	61.5	60.7
34	B 970123	59.6	57.5	61.4	59.8	55.2
35	B 970051	55.2	55.4	59.7	60.4	55.5
36	961337A13-7-3	55.6	53.7	58.7	58.2	57.9
37	92226E2-5-3	57.9	54.3	57.4	56.9	57.6
38	Y98-912	58.1	57.2	61.0	61.5	59.7
39	Z98-919	56.9	54.5	59.1	57.1	54.0
40	Z98*912	57.0	54.5	59.4	57.9	55.2
41	AR 850-1-1	57.9	55.9	60.2	55.2	60.0
42	AR 910-9-1	58.1	55.5	58.7	59.6	59.7
43	T 126	59.3	57.2	60.3	46.9	61.1
44	T 127	56.0	54.3	56.1	58.8	49.2
LOCATION MEANS		57.8	56.3	59.4	58.5	57.5

TEST WEIGHT (lbs/bu)

		W. Lafayette IN	Logan Co. KY	Clarksville MD	Climax MI	Ingham Co. MI
1	Caldwell	60.9	62.0	59.6	58.7	57.7
2	Foster	61.4	61.0	58.6	57.4	57.9
3	Patton	60.9	60.2	59.3	59.6	61.7
4	Roane	63.0	63.1	60.3	58.5	62.2
5	VA 98W-593	63.0	62.0	61.6	59.6	62.1
6	KY 90C-292-4-1	62.7	59.4	59.3	61.0	59.2
7	KY 90C-054-6	59.9	58.8	58.1	58.6	57.5
8	AR 839-28-1-2	61.5	59.1	59.0	58.5	58.4
9	VA 98W-591	62.7	63.3	61.4	59.5	62.4
10	T 124	60.4	60.3	54.5	54.9	55.7
11	MO 960903	61.5	60.8	59.3	58.6	59.8
12	MO 980525	61.7	60.8	58.2	57.2	58.2
13	92212RC4-3-137-2	60.9	59.3	55.1	56.4	61.0
14	OH 684	61.6	61.2	58.7	58.6	58.9
15	G 97041	59.9	60.6	57.3	56.9	56.1
16	G 86244	61.4	59.3	58.7	59.1	58.0
17	G 96332	60.4	60.4	57.5	57.3	61.0
18	IL 96-346	60.7	59.9	58.0	56.5	54.2
19	IL 97-2422	62.3	62.3	59.4	59.2	57.9
20	OH 685	62.1	60.0	58.4	59.5	58.7
21	OH 669	61.1	61.7	58.7	54.7	57.4
22	KY 90C-42-37-1	60.7	61.0	59.6	57.8	59.0
23	MO 980725	61.6	62.3	58.7	57.6	56.7
24	M94*1549-1	61.6	60.3	60.2	60.8	61.8
25	M98*2152	60.8	59.7	56.7	57.5	56.9
26	M98-2023	62.3	62.1	59.4	60.1	59.2
27	TW 044-094	60.9	59.1	58.7	54.6	57.9
28	TW 043-008	61.4	60.2	57.8	56.9	59.3
29	Daisy exp.	60.2	60.4	59.0	58.4	58.8
30	Husky exp.	62.7	62.4	60.2	57.5	59.4
31	Jekyl exp.	59.1	60.8	58.4	54.4	56.2
32	VA 98W-706	62.0	60.8	59.9	60.6	61.2
33	B 961378	61.1	62.0	58.4	54.6	56.5
34	B 970123	63.1	59.2	59.3	60.6	61.4
35	B 970051	60.6	60.1	57.3	58.4	54.3
36	961337A13-7-3	59.1	58.9	57.7	56.6	57.6
37	92226E2-5-3	60.2	58.0	58.4	57.1	58.5
38	Y98-912	61.3	61.8	58.2	55.0	59.4
39	Z98-919	59.5	60.1	57.2	56.7	57.4
40	Z98*912	60.4	59.6	57.4	58.4	56.9
41	AR 850-1-1	60.7	60.7	57.6	59.1	59.2
42	AR 910-9-1	59.8	59.7	57.7	58.3	58.8
43	T 126	61.9	56.2	58.0	56.0	59.7
44	T 127	59.5	57.3	57.5	55.1	54.7
LOCATION MEANS		61.1	60.4	58.5	57.8	58.6

TEST WEIGHT (lbs/bu)

		Columbia Mo	Plymouth NC	Ithaca NY	Smithville OH	Wooster OH
1	Caldwell	54.9	57.9	55.8		58.4
2	Foster	58.6	55.6	57.8	58.5	61.9
3	Patton	57.7	56.8	59.6	59.0	61.6
4	Roane	60.2	60.8	61.0		63.3
5	VA 98W-593	61.1	62.0	61.7	60.2	63.0
6	KY 90C-292-4-1	58.1	56.4	58.4	55.5	61.5
7	KY 90C-054-6	56.9	56.6	58.7	59.0	60.0
8	AR 839-28-1-2	56.5	56.9	57.1	55.0	60.5
9	VA 98W-591	60.3	60.6	60.4		64.0
10	T 124	55.9	56.2	57.9	53.6	60.6
11	MO 960903	58.3	57.7	60.5	58.7	61.4
12	MO 980525	59.3	56.2	58.7	57.8	62.5
13	92212RC4-3-137-2	57.9	56.7	58.6		61.8
14	OH 684	56.8	55.4	58.9	59.0	61.3
15	G 97041	56.8	57.2	58.3	56.5	59.2
16	G 86244	57.9	57.5	56.3	58.1	61.3
17	G 96332	56.6	57.2	56.4	59.2	60.3
18	IL 96-346	57.6	58.8	55.3	59.1	60.1
19	IL 97-2422	59.2	60.4	58.9	59.0	61.9
20	OH 685	57.4	57.2	57.0	58.1	61.7
21	OH 669	56.0	55.4	57.1	58.4	61.3
22	KY 90C-42-37-1	57.1	59.9	58.3	58.5	60.5
23	MO 980725	59.5	55.1	59.0	58.7	61.4
24	M94*1549-1	57.7	57.6	59.9	59.6	62.0
25	M98*2152	55.4	55.8	56.3	59.0	60.6
26	M98-2023	58.2	57.6	57.9	59.0	62.6
27	TW 044-094	57.3	57.7	58.5	58.7	62.1
28	TW 043-008	56.4	56.8	57.4	57.4	61.9
29	Daisy exp.	56.6	55.9	57.0	59.0	61.1
30	Husky exp.	57.2	53.3	58.1	59.3	62.9
31	Jekyl exp.	55.3	56.6	58.2	60.7	60.4
32	VA 98W-706	59.0	58.9	60.7	58.6	62.4
33	B 961378	57.5	60.3	60.5	56.3	61.4
34	B 970123	60.1	59.1	59.9	60.4	62.7
35	B 970051	57.3	55.7	57.0	59.0	60.8
36	961337A13-7-3	56.4	55.7	56.0		59.7
37	92226E2-5-3	57.1	57.4	57.9	57.3	61.3
38	Y98-912	58.8	58.6	58.2	58.8	61.5
39	Z98-919	55.5	58.3	56.5	58.2	60.9
40	Z98*912	56.6	56.5	57.3	58.1	60.1
41	AR 850-1-1	56.6	59.9	57.1		59.9
42	AR 910-9-1	56.4	58.2	59.5	58.6	60.5
43	T 126	56.9	57.3	58.2	58.8	61.8
44	T 127	54.7	54.9	54.3	57.9	58.3
LOCATION MEANS		57.4	57.4	58.1	58.3	61.2

TEST WEIGHT (lbs/bu)

		Nairn ON	Ridgetown ON	Knoxville TN	Blacksburg VA	Warsaw VA
1	Caldwell	54.4	58.3	50.1	55.5	55.9
2	Foster	56.7	58.0	53.3	56.5	56.1
3	Patton	56.4	60.0	53.0	57.0	55.7
4	Roane	58.9	61.4	57.8	59.0	58.1
5	VA 98W-593	60.3	63.1	58.9	59.2	58.2
6	KY 90C-292-4-1	56.5	58.0	55.7	56.2	56.5
7	KY 90C-054-6	56.2	56.7	54.5	56.0	54.6
8	AR 839-28-1-2	56.9	60.0	56.4	57.2	56.9
9	VA 98W-591	58.7	60.4	54.8	58.4	56.5
10	T 124	54.4	57.8	53.7	55.5	52.6
11	MO 960903	55.6	59.4	55.7	58.0	55.9
12	MO 980525	57.2	58.3	53.6	57.3	56.0
13	92212RC4-3-137-2	56.9	58.7	52.4	56.1	55.2
14	OH 684	57.6	58.3	54.1	57.6	55.9
15	G 97041	55.6	56.7	56.2	56.7	56.5
16	G 86244	55.5	59.8	54.2	56.2	54.9
17	G 96332	57.7	57.5	56.1	57.0	56.1
18	IL 96-346	54.9	55.0	56.4	55.9	58.4
19	IL 97-2422	58.1	59.4	56.9	57.8	57.5
20	OH 685	57.4	57.6	53.0	56.8	56.6
21	OH 669	56.6	58.9	52.5	57.5	57.2
22	KY 90C-42-37-1	56.2	58.6	58.2	57.1	55.0
23	MO 980725	56.5	60.1	54.9	56.9	56.2
24	M94*1549-1	58.1	60.9	53.6	56.1	55.4
25	M98*2152	54.9	57.6	56.0	55.5	54.2
26	M98-2023	55.0	57.5	55.2	56.7	55.7
27	TW 044-094	56.9	61.4	56.1	57.0	57.6
28	TW 043-008	55.0	58.1	58.1	57.3	55.5
29	Daisy exp.	52.6	55.8	53.4	54.3	55.0
30	Husky exp.	55.6	56.7	55.4	57.0	57.3
31	Jekyl exp.	56.0	56.6	53.7	56.9	53.9
32	VA 98W-706	56.5	60.8	57.8	57.7	56.9
33	B 961378	57.8	58.6	55.7	57.8	56.4
34	B 970123	57.1	60.1	56.2	57.4	56.9
35	B 970051	54.1	57.0	54.5	55.7	54.3
36	961337A13-7-3	52.8	55.8	52.8	53.8	54.8
37	92226E2-5-3	53.9	56.7	53.0	55.0	56.0
38	Y98-912	58.0	58.7	57.2	57.6	56.6
39	Z98-919	54.2	56.6	55.1	55.3	54.7
40	Z98*912	55.9	56.7	52.8	56.6	56.2
41	AR 850-1-1	55.8	59.0	54.9	57.7	56.7
42	AR 910-9-1	55.5	59.4	54.6	56.4	56.5
43	T 126	57.1	60.9	54.4	57.2	56.9
44	T 127	51.4	55.5	51.6	54.4	53.0
LOCATION MEANS		56.1	58.5	54.9	56.7	56.0

TEST WEIGHT (lbs/bu)

		Arlington WI	ENTRY MEANS ALL LOCATIONS	rank
1	Caldwell	55.2	56.6	32
2	Foster	58.8	57.3	24
3	Patton	58.1	57.6	19
4	Roane	60.4	59.8	2
5	VA 98W-593	61.7	59.9	1
6	KY 90C-292-4-1	59.5	57.6	17
7	KY 90C-054-6	57.1	56.4	38
8	AR 839-28-1-2	59.1	57.3	25
9	VA 98W-591	59.8	59.4	3
10	T 124	58.1	55.5	42
11	MO 960903	58.4	57.7	15
12	MO 980525	59.4	57.7	14
13	92212RC4-3-137-2	58.4	56.2	41
14	OH 684	57.0	57.6	18
15	G 97041	54.1	56.6	31
16	G 86244	57.5	57.1	28
17	G 96332	57.9	57.2	27
18	IL 96-346	57.6	56.9	30
19	IL 97-2422	56.8	58.5	6
20	OH 685	58.4	57.2	26
21	OH 669	56.4	57.1	29
22	KY 90C-42-37-1	56.5	57.8	11
23	MO 980725	59.1	57.7	13
24	M94*1549-1	60.5	58.0	8
25	M98*2152	57.2	56.3	40
26	M98-2023	59.3	58.0	7
27	TW 044-094	55.4	57.6	16
28	TW 043-008	57.5	57.5	22
29	Daisy exp.	56.3	56.3	39
30	Husky exp.	59.1	57.3	23
31	Jekyl exp.	57.5	56.5	34
32	VA 98W-706	59.0	58.8	5
33	B 961378	56.1	57.8	10
34	B 970123	60.2	59.0	4
35	B 970051	57.1	56.4	35
36	961337A13-7-3	56.5	55.4	43
37	92226E2-5-3	57.7	56.4	37
38	Y98-912	58.0	57.9	9
39	Z98-919	57.6	56.4	36
40	Z98*912	58.7	56.5	33
41	AR 850-1-1	58.9	57.8	12
42	AR 910-9-1	57.0	57.5	20
43	T 126	60.3	57.5	21
44	T 127	53.4	54.6	44
LOCATION MEANS		57.9		

KERNEL WEIGHT (grams)

		Nairn ON	Ridgetown ON
		100 count	100 count
1	Caldwell	2.55	2.46
2	Foster	3.03	2.90
3	Patton	3.65	3.20
4	Roane	2.70	2.73
5	VA 98W-593	3.48	3.35
6	KY 90C-292-4-1	2.78	3.00
7	KY 90C-054-6	2.75	2.89
8	AR 839-28-1-2	2.85	2.87
9	VA 98W-591	3.00	2.93
10	T 124	2.83	3.10
11	MO 960903	2.98	3.13
12	MO 980525	2.90	3.02
13	92212RC4-3-137-2	3.33	3.44
14	OH 684	3.23	3.28
15	G 97041	3.15	2.82
16	G 86244	3.08	3.05
17	G 96332	3.18	3.15
18	IL 96-346	2.95	2.78
19	IL 97-2422	3.13	3.04
20	OH 685	3.33	3.15
21	OH 669	3.45	3.35
22	KY 90C-42-37-1	2.90	3.10
23	MO 980725	2.73	3.22
24	M94*1549-1	3.05	3.25
25	M98*2152	2.83	3.19
26	M98-2023	2.60	2.90
27	TW 044-094	3.30	3.24
28	TW 043-008	3.33	3.45
29	Daisy exp.	2.53	2.90
30	Husky exp.	2.90	2.87
31	Jekyl exp.	2.85	2.81
32	VA 98W-706	2.55	3.12
33	B 961378	2.68	2.88
34	B 970123	2.68	2.82
35	B 970051	2.78	2.88
36	961337A13-7-3	3.13	3.25
37	92226E2-5-3	3.28	3.66
38	Y98-912	3.18	3.16
39	Z98-919	2.78	2.74
40	Z98*912	3.05	3.10
41	AR 850-1-1	2.65	3.17
42	AR 910-9-1	3.15	3.60
43	T 126	3.10	3.40
44	T 127	2.38	2.50
LOCATION MEANS		2.97	3.06

HEADING DATE (Julian)

		Bay AR	Keiser AR	New Castle Co. DE	Quincy FL	Griffin GA
1	Caldwell	114.3	118	127	NV	108
2	Foster	112.0	115	128	NV	107
3	Patton	111.0	115	127	98	105
4	Roane	112.0	117	128	NV	107
5	VA 98W-593	111.7	115	126	95	105
6	KY 90C-292-4-1	110.0	116	128	97	106
7	KY 90C-054-6	112.0	118	129	NV	106
8	AR 839-28-1-2	111.7	116	127	96	106
9	VA 98W-591	111.0	116	128	97	106
10	T 124	111.0	117	129	94	105
11	MO 960903	112.3	114	128	97	106
12	MO 980525	115.3	122	126	NV	109
13	92212RC4-3-137-2	109.3	113	126	93	103
14	OH 684	112.0	115	128	NV	107
15	G 97041	111.0	116	128	NV	107
16	G 86244	109.7	114	127	97	106
17	G 96332	109.3	115	129	93	104
18	IL 96-346	116.0	120	131	NV	109
19	IL 97-2422	113.7	118	130	NV	109
20	OH 685	110.0	113	126	101	104
21	OH 669	114.7	116	129	NV	109
22	KY 90C-42-37-1	114.3	116	128	101	106
23	MO 980725	111.7	116	126	99	106
24	M94*1549-1	108.7	111	127	91	103
25	M98*2152	114.0	118	131	NV	109
26	M98-2023	110.0	116	128	92	107
27	TW 044-094	117.0	119	132	NV	110
28	TW 043-008	115.7	118	131	NV	108
29	Daisy exp.	111.3	116	129	NV	107
30	Husky exp.	112.3	114	128	NV	107
31	Jekyl exp.	118.0	121	130	NV	109
32	VA 98W-706	110.0	112	126	97	103
33	B 961378	109.3	115	129	95	102
34	B 970123	108.7	111	127	93	102
35	B 970051	113.7	116	130	92	105
36	961337A13-7-3	111.3	115	130	102	107
37	92226E2-5-3	109.3	113	129	100	106
38	Y98-912	111.3	116	128	103	107
39	Z98-919	110.0	115	127	NV	108
40	Z98*912	111.3	114	127	93	103
41	AR 850-1-1	113.0	116	128	93	106
42	AR 910-9-1	108.0	111	125	92	102
43	T 126	111.0	115	128	93	103
44	T 127	111.3	116	129	93	105
LOCATION MEANS		111.8	115.7	128.1		106.0

HEADING DATE (Julian)

		Aberdeen ID	Urbana IL	Delphi IN	Greensburg IN	W. Lafayette IN
1	Caldwell	150.0	142.3	142	133	140.0
2	Foster	152.3	142.3	142	131	138.0
3	Patton	151.8	139.0	141	130	133.5
4	Roane	152.0	144.0	143	131	140.5
5	VA 98W-593	151.5	142.3	143	131	138.0
6	KY 90C-292-4-1	153.0	138.3	143	130	137.0
7	KY 90C-054-6	154.8	142.3	145	134	141.5
8	AR 839-28-1-2	154.5	137.0	144	130	138.0
9	VA 98W-591	151.0	141.0	142	133	140.5
10	T 124	154.8	141.0	143	131	134.5
11	MO 960903	152.5	138.3	141	131	139.5
12	MO 980525	155.0	146.7	146	139	143.0
13	92212RC4-3-137-2	153.3	136.0	140	127	131.0
14	OH 684	154.0	139.7	141	130	139.5
15	G 97041	154.0	141.0	140	130	138.5
16	G 86244	152.8	138.3	140	130	138.0
17	G 96332	151.5	139.7	142	130	135.5
18	IL 96-346	153.3	145.3	144	136	143.5
19	IL 97-2422	154.5	144.0	144	134	141.5
20	OH 685	150.8	138.7	139	131	134.5
21	OH 669	155.8	144.7	145	134	143.5
22	KY 90C-42-37-1	153.0	143.3	145	132	141.5
23	MO 980725	152.5	136.7	143	138	134.5
24	M94*1549-1	152.5	139.7	144	130	134.5
25	M98*2152	154.0	146.0	145	135	144.0
26	M98-2023	152.5	142.0	143	131	135.0
27	TW 044-094	154.8	146.7	Late	137	144.5
28	TW 043-008	154.5	145.7	145	136	143.5
29	Daisy exp.	154.0	143.0	142	133	137.0
30	Husky exp.	155.5	142.0	143	132	139.5
31	Jekyl exp.	154.0	146.3	149	138	144.0
32	VA 98W-706	153.5	135.7	143	127	133.0
33	B 961378	157.3	142.7	146	133	137.0
34	B 970123	152.0	137.0	140	128	132.5
35	B 970051	156.3	143.7	148	134	139.0
36	961337A13-7-3	153.3	140.7	144	133	134.5
37	92226E2-5-3	149.3	138.3	143	129	132.0
38	Y98-912	155.3	141.7	144	133	140.0
39	Z98-919	154.3	138.7	143	130	136.0
40	Z98*912	154.8	142.0	143	131	135.0
41	AR 850-1-1	155.5	146.7	145	134	140.5
42	AR 910-9-1	151.3	137.3	143	138	133.0
43	T 126	152.8	139.7	144	130	134.0
44	T 127	155.8	144.3	145	134	140.5
LOCATION MEANS		153.4	141.4		132.3	138.1

HEADING DATE (Julian)

		Wichita KS	Logan Co. KY	Clarksville MD	Ingham Co. MI	Columbia MO
1	Caldwell	120	131	128	159.0	131.0
2	Foster	122	128	129	159.0	130.0
3	Patton	120	129	127	157.0	128.7
4	Roane	121	128	129	159.0	133.0
5	VA 98W-593	121	131	127	158.0	129.7
6	KY 90C-292-4-1	121	130	127	158.5	127.7
7	KY 90C-054-6	122	128	128	158.5	131.0
8	AR 839-28-1-2	122	128	127	159.0	130.7
9	VA 98W-591	121	129	127	157.5	130.3
10	T 124	122	128	127	158.5	130.0
11	MO 960903	121	129	127	157.5	127.7
12	MO 980525	123	131	131	159.5	134.0
13	92212RC4-3-137-2	121	130	125	156.5	125.7
14	OH 684	121	131	128	159.0	131.0
15	G 97041	120	129	128	159.0	130.0
16	G 86244	121	128	127	158.0	127.3
17	G 96332	121	126	127	156.5	128.3
18	IL 96-346	122	133	130	159.0	134.0
19	IL 97-2422	122	132	130	159.0	132.3
20	OH 685	120	127	127	157.5	126.3
21	OH 669	123	129	130	159.0	134.3
22	KY 90C-42-37-1	121	128	127	158.5	131.0
23	MO 980725	121	128	127	157.5	128.7
24	M94*1549-1	118	127	125	158.5	128.0
25	M98*2152	123	131	131	160.5	135.7
26	M98-2023	121	132	128	158.5	130.3
27	TW 044-094	123	132	130	159.0	135.3
28	TW 043-008	121	132	130	159.0	134.3
29	Daisy exp.	121	129	128	157.0	129.3
30	Husky exp.	122	129	128	159.0	130.7
31	Jekyl exp.	124	132	131	161.5	136.7
32	VA 98W-706	121	129	125	158.0	128.0
33	B 961378	123	128	128	160.5	130.3
34	B 970123	119	128	124	157.0	126.3
35	B 970051	122	132	130	159.5	133.0
36	961337A13-7-3	121	129	127	157.0	129.0
37	92226E2-5-3	119	128	124	156.0	126.3
38	Y98-912	122	128	128	159.0	130.7
39	Z98-919	121	128	128	159.0	129.0
40	Z98*912	121	128	127	158.5	130.3
41	AR 850-1-1	122	129	127	158.5	134.3
42	AR 910-9-1	120	126	123	157.0	126.3
43	T 126	121	128	127	159.5	129.0
44	T 127	122	132	128	158.5	131.7
LOCATION MEANS		121.3	129.3	127.7	158.4	130.4

HEADING DATE (Julian)

		Lincoln NE	Ithaca NY	Smithville OH	Wooster OH	Nairn ON
1	Caldwell	146	154	145.0	144	158.7
2	Foster	146	155	141.5	144	160.3
3	Patton	145	153	137.5	142	157.3
4	Roane	146	155	143.5	144	161.0
5	VA 98W-593	143	153	139.0	143	158.7
6	KY 90C-292-4-1	146	153	136.0	140	159.3
7	KY 90C-054-6	146	156	140.0	144	160.0
8	AR 839-28-1-2	146	154	138.5	141	160.3
9	VA 98W-591	146	153	140.0	144	159.0
10	T 124	146	154	143.5	143	162.0
11	MO 960903	144	153	141.5	143	158.3
12	MO 980525	147	156	140.5	146	162.3
13	92212RC4-3-137-2	143	152	144.5	138	159.7
14	OH 684	145	154	139.0	142	160.0
15	G 97041	143	155	142.5	144	159.3
16	G 86244	146	155	139.0	142	159.3
17	G 96332	143	154	139.5	141	161.3
18	IL 96-346	146	156	146.0	146	162.0
19	IL 97-2422	146	155	146.0	146	161.0
20	OH 685	142	153	138.5	141	157.7
21	OH 669	146	156	144.5	145	162.0
22	KY 90C-42-37-1	142	155	143.5	144	161.3
23	MO 980725	145	153	137.5	139	160.0
24	M94*1549-1	142	154	139.5	140	161.0
25	M98*2152	148	157	146.0	146	161.0
26	M98-2023	145	153	142.5	144	159.7
27	TW 044-094	147	156	146.0	147	161.7
28	TW 043-008	147	155	145.5	146	161.0
29	Daisy exp.	143	154	144.0	144	159.3
30	Husky exp.	146	155	140.0	144	159.0
31	Jekyl exp.	147	155	146.0	147	159.7
32	VA 98W-706	145	152	133.0	138	158.3
33	B 961378	147	157	141.0	144	163.7
34	B 970123	143	153	140.0	140	159.7
35	B 970051	146	155	144.0	144	162.7
36	961337A13-7-3	143	153	139.5	143	158.7
37	92226E2-5-3	141	150	138.0	140	157.3
38	Y98-912	146	155	140.0	144	159.3
39	Z98-919	146	153	141.5	144	159.0
40	Z98*912	145	153	142.5	143	160.0
41	AR 850-1-1	146	155	146.0	144	159.0
42	AR 910-9-1	145	153	138.5	138	158.0
43	T 126	143	155	140.0	140	160.0
44	T 127	146	154	144.0	144	161.3
LOCATION MEANS		145.0	154.2	141.5	143.0	160.0

HEADING DATE (Julian)

		Ridgetown ON	Knoxville TN	Blacksburg VA	Warsaw VA	ENTRY MEANS ALL LOCATIONS	rank
1	Caldwell	155	118	126	114	135.0	34
2	Foster	156	118	126	115	134.7	32
3	Patton	154	117	124	110	131.4	8
4	Roane	156	118	127	113	135.1	35
5	VA 98W-593	154	117	123	110	131.9	13
6	KY 90C-292-4-1	154	118	123	111	131.8	11
7	KY 90C-054-6	155	119	126	114	135.2	36
8	AR 839-28-1-2	155	119	126	114	132.5	19
9	VA 98W-591	154	118	123	111	132.4	17
10	T 124	156	119	124	111	132.7	21
11	MO 960903	155	117	124	111	132.0	14
12	MO 980525	156	127	130	119	137.6	43
13	92212RC4-3-137-2	154	117	122	106	130.2	3
14	OH 684	155	119	128	113	134.4	30
15	G 97041	156	119	125	113	134.3	28
16	G 86244	156	118	124	111	131.8	12
17	G 96332	155	119	125	111	131.5	9
18	IL 96-346	159	121	130	116	137.3	40
19	IL 97-2422	158	119	129	116	136.5	37
20	OH 685	153	116	124	110	130.9	7
21	OH 669	159	119	130	115	136.7	38
22	KY 90C-42-37-1	156	119	128	112	133.6	23
23	MO 980725	153	119	125	113	132.1	16
24	M94*1549-1	154	117	120	107	130.5	6
25	M98*2152	158	121	129	116	137.4	41
26	M98-2023	156	118	124	112	132.5	18
27	TW 044-094	159	120	130	119	137.5	42
28	TW 043-008	159	120	129	115	137.0	39
29	Daisy exp.	155	118	126	113	134.5	31
30	Husky exp.	157	118	128	114	134.9	33
31	Jekyl exp.	159	122	130	117	138.1	44
32	VA 98W-706	153	117	123	109	130.4	4
33	B 961378	159	120	127	111	133.6	22
34	B 970123	154	116	122	108	130.0	2
35	B 970051	157	120	128	113	134.3	29
36	961337A13-7-3	155	119	125	111	132.5	20
37	92226E2-5-3	152	117	124	109	130.4	5
38	Y98-912	157	118	128	113	133.6	24
39	Z98-919	156	117	124	112	133.9	26
40	Z98*912	154	119	124	110	132.1	15
41	AR 850-1-1	156	121	125	114	133.9	27
42	AR 910-9-1	152	115	122	106	130.0	1
43	T 126	155	118	125	109	131.7	10
44	T 127	156	119	126	112	133.7	25
LOCATION MEANS		155.6	118.6	125.7	112.3		

HEIGHT (inches)

		Keiser AR	New Castle Co. DE	Quincy FL	Griffin GA	Aberdeen ID
1	Caldwell	33	40	26.0	41	36.3
2	Foster	30	38	26.5	38	32.8
3	Patton	32	40	30.0	42	36.3
4	Roane	29	38	24.0	38	31.3
5	VA 98W-593	27	35	26.0	36	31.3
6	KY 90C-292-4-1	26	40	25.0	35	32.8
7	KY 90C-054-6	28	41	27.0	36	39.8
8	AR 839-28-1-2	30	38	27.0	38	35.5
9	VA 98W-591	26	34	26.5	30	29.8
10	T 124	27	38	26.0	34	33.0
11	MO 960903	34	42	35.0	39	39.5
12	MO 980525	33	40	33.0	39	37.3
13	92212RC4-3-137-2	33	41	32.0	39	38.5
14	OH 684	32	40	32.5	40	36.5
15	G 97041	33	43	30.5	40	40.5
16	G 86244	32	42	34.5	40	40.0
17	G 96332	28	37	28.0	34	32.3
18	IL 96-346	27	36	26.0	38	33.0
19	IL 97-2422	31	37	29.0	38	36.0
20	OH 685	31	38	33.5	37	33.3
21	OH 669	32	40	22.5	38	39.3
22	KY 90C-42-37-1	26	39	32.0	42	32.5
23	MO 980725	31	38	31.0	34	34.8
24	M94*1549-1	25	39	26.0	33	33.0
25	M98*2152	30	39	28.5	35	32.5
26	M98-2023	29	37	29.5	35	32.0
27	TW 044-094	30	39	23.0	40	38.8
28	TW 043-008	35	41	26.5	44	37.3
29	Daisy exp.	29	37	26.0	37	35.0
30	Husky exp.	29	36	25.5	37	34.8
31	Jekyl exp.	33	41	29.5	39	36.8
32	VA 98W-706	27	37	26.0	32	32.8
33	B 961378	25	38	26.0	32	34.0
34	B 970123	27	35	28.5	34	32.3
35	B 970051	28	34	28.0	33	32.3
36	961337A13-7-3	29	38	27.0	37	37.3
37	92226E2-5-3	27	34	28.5	37	28.3
38	Y98-912	32	41	30.5	38	36.0
39	Z98-919	29	37	29.0	39	35.5
40	Z98*912	32	40	33.5	36	36.8
41	AR 850-1-1	27	39	30.0	35	34.5
42	AR 910-9-1	33	41	31.0	36	36.8
43	T 126	23	35	25.5	34	34.8
44	T 127	29	36	28.0	34	37.0
LOCATION MEANS		29.5	38.4	28.4	36.9	35.0

HEIGHT (inches)

		Brownstown IL	Urbana IL	Delphi IN	W. Lafayette IN	Logan Co. KY
1	Caldwell	35.0	39.1	40	39.3	37
2	Foster	35.9	39.7	38	41.0	37
3	Patton	35.3	36.3	38	39.8	40
4	Roane	32.7	37.3	35	38.3	34
5	VA 98W-593	30.8	34.1	35	35.3	32
6	KY 90C-292-4-1	34.7	32.8	37	36.3	35
7	KY 90C-054-6	36.0	39.3	42	42.0	39
8	AR 839-28-1-2	32.5	37.3	39	40.3	37
9	VA 98W-591	31.4	40.6	34	36.3	32
10	T 124	35.1	37.3	37	36.3	32
11	MO 960903	38.2	39.8	42	43.5	38
12	MO 980525	38.0	38.9	39	42.3	40
13	92212RC4-3-137-2	34.6	39.5	38	39.0	36
14	OH 684	35.3	39.6	38	40.3	37
15	G 97041	36.2	38.4	41	43.8	39
16	G 86244	36.8	41.6	41	43.3	40
17	G 96332	32.8	37.4	38	38.5	36
18	IL 96-346	34.7	38.2	36	37.0	37
19	IL 97-2422	35.2	40.1	38	41.0	37
20	OH 685	35.8	36.4	38	39.8	37
21	OH 669	34.6	41.2	39	37.3	38
22	KY 90C-42-37-1	35.3	35.7	38	40.8	37
23	MO 980725	37.5	37.3	39	43.3	39
24	M94*1549-1	32.5	37.1	38	36.0	34
25	M98*2152	35.6	40.8	39	39.3	37
26	M98-2023	32.1	36.9	36	37.0	35
27	TW 044-094	35.0	41.5	39	42.3	38
28	TW 043-008	35.9	42.6	42	42.8	39
29	Daisy exp.	31.2	38.7	37	38.5	35
30	Husky exp.	32.8	37.7	36	37.8	35
31	Jekyl exp.	37.8	41.9	39	43.8	41
32	VA 98W-706	30.7	32.9	36	35.3	30
33	B 961378	30.6	35.9	36	36.5	35
34	B 970123	30.5	34.2	35	35.8	30
35	B 970051	32.0	36.6	34	36.3	32
36	961337A13-7-3	33.7	35.3	40	38.0	38
37	92226E2-5-3	29.8	38.0	33	35.5	32
38	Y98-912	35.4	40.4	41	42.8	39
39	Z98-919	33.3	39.2	39	39.8	37
40	Z98*912	34.2	38.9	40	39.5	34
41	AR 850-1-1	34.3	34.3	40	37.3	32
42	AR 910-9-1	36.3	36.9	41	39.8	35
43	T 126	32.3	35.2	36	35.3	32
44	T 127	32.9	37.2	35	39.8	34
LOCATION MEANS		34.2	38.0	38.0	39.1	35.9

HEIGHT (inches)

		Clarksville MD	Ingham Co. MI	Columbia MO	Lincoln NE	Ithaca NY
1	Caldwell	38.3	38.0	39	40	40.0
2	Foster	36.0	39.0	40	39	39.0
3	Patton	37.0	41.6	37	40	39.9
4	Roane	34.3	37.0	35	36	37.7
5	VA 98W-593	34.0	35.5	35	36	36.5
6	KY 90C-292-4-1	36.0	37.0	38	36	39.4
7	KY 90C-054-6	39.7	44.1	38	41	44.2
8	AR 839-28-1-2	36.7	38.5	39	42	39.4
9	VA 98W-591	33.7	35.3	36	35	35.4
10	T 124	34.3	37.0	35	36	36.7
11	MO 960903	39.3	42.7	43	41	44.2
12	MO 980525	36.3	38.1	42	38	39.8
13	92212RC4-3-137-2	37.3	40.3	39	38	39.8
14	OH 684	38.7	40.0	39	38	39.4
15	G 97041	39.3	40.7	42	42	42.0
16	G 86244	39.3	42.6	42	40	40.0
17	G 96332	35.0	40.3	36	35	38.3
18	IL 96-346	36.7	34.4	35	38	35.4
19	IL 97-2422	37.3	39.6	40	36	38.7
20	OH 685	37.0	39.6	39	36	39.6
21	OH 669	38.7	39.4	37	37	40.6
22	KY 90C-42-37-1	39.3	40.9	38	37	41.9
23	MO 980725	38.7	37.1	41	39	39.0
24	M94*1549-1	34.7	39.1	35	35	39.0
25	M98*2152	37.3	40.0	39	37	39.8
26	M98-2023	35.7	34.0	36	35	35.7
27	TW 044-094	39.0	39.5	38	37	41.3
28	TW 043-008	39.7	42.6	39	40	42.3
29	Daisy exp.	36.7	39.0	36	34	38.7
30	Husky exp.	35.7	36.0	37	36	35.4
31	Jekyl exp.	39.7	41.5	40	40	41.3
32	VA 98W-706	34.0	35.6	37	34	36.7
33	B 961378	34.7	35.5	33	32	35.3
34	B 970123	32.7	34.5	35	33	35.0
35	B 970051	34.3	33.6	34	33	35.8
36	961337A13-7-3	37.3	39.5	37	37	39.0
37	92226E2-5-3	33.0	34.8	35	30	35.7
38	Y98-912	38.0	41.0	41	41	42.0
39	Z98-919	37.0	38.2	39	39	39.0
40	Z98*912	37.3	39.6	37	39	41.3
41	AR 850-1-1	35.0	38.4	36	35	37.9
42	AR 910-9-1	38.7	40.9	40	41	40.0
43	T 126	33.7	37.6	35	33	36.1
44	T 127	37.3	38.6	36	36	38.3
LOCATION MEANS		36.7	38.6	37.7	37.1	38.9

HEIGHT (inches)

		Smithville OH	Wooster OH	Nairn ON	Ridgetown ON	Blacksburg VA
1	Caldwell	35.0	42	31.9	45	33
2	Foster	36.0	43	33.3	44	32
3	Patton	41.0	42	32.5	45	32
4	Roane	35.0	41	30.3	41	31
5	VA 98W-593	32.0	40	29.5	41	30
6	KY 90C-292-4-1	37.5	37	31.5	42	30
7	KY 90C-054-6	42.0	43	37.2	46	35
8	AR 839-28-1-2	35.5	41	33.5	44	34
9	VA 98W-591	30.5	40	30.7	40	30
10	T 124	27.5	40	30.7	44	32
11	MO 960903	34.5	43	34.6	49	35
12	MO 980525	38.0	43	32.9	44	34
13	92212RC4-3-137-2	36.5	43	31.5	44	32
14	OH 684	38.0	43	31.3	44	35
15	G 97041	38.5	43	32.1	47	35
16	G 86244	41.0	45	36.0	47	35
17	G 96332	39.0	39	32.5	41	32
18	IL 96-346	40.5	41	31.7	40	30
19	IL 97-2422	36.5	43	31.9	42	33
20	OH 685	38.0	42	34.4	43	34
21	OH 669	38.0	44	31.9	43	35
22	KY 90C-42-37-1	37.5	42	33.9	45	33
23	MO 980725	33.0	40	35.0	45	33
24	M94*1549-1	37.0	38	31.3	43	28
25	M98*2152	49.0	42	35.4	42	34
26	M98-2023	32.5	40	30.9	40	31
27	TW 044-094	36.0	45	35.4	44	33
28	TW 043-008	38.0	46	34.4	45	36
29	Daisy exp.	37.0	42	31.9	43	30
30	Husky exp.	37.0	42	32.7	41	31
31	Jekyl exp.	35.0	43	34.8	46	34
32	VA 98W-706	30.5	38	30.1	40	29
33	B 961378	33.5	39	31.5	41	31
34	B 970123	30.5	37	28.5	39	29
35	B 970051	37.0	38	28.1	39	29
36	961337A13-7-3	35.0	43	34.3	42	35
37	92226E2-5-3	35.0	38	27.6	38	29
38	Y98-912	41.0	43	35.6	44	35
39	Z98-919	39.0	42	34.3	42	31
40	Z98*912	34.0	41	33.9	45	33
41	AR 850-1-1	38.0	37	31.5	42	32
42	AR 910-9-1	38.0	42	35.6	44	34
43	T 126	30.5	40	31.3	41	30
44	T 127	34.0	41	32.5	42	32
LOCATION MEANS		36.3	41.3	32.6	42.9	32.3

HEIGHT (inches)

		Warsaw VA	Arlington WI	ENTRY MEANS ALL LOCATIONS	rank
1	Caldwell	37	44.0	37.7	14
2	Foster	35	39.0	36.9	24
3	Patton	35	42.0	37.9	10
4	Roane	32	37.5	34.8	33
5	VA 98W-593	31	36.5	33.6	38
6	KY 90C-292-4-1	33	40.5	35.1	32
7	KY 90C-054-6	37	42.5	39.1	6
8	AR 839-28-1-2	35	43.0	37.1	22
9	VA 98W-591	30	37.0	33.4	41
10	T 124	31	39.5	34.5	36
11	MO 960903	37	42.0	39.8	2
12	MO 980525	36	41.0	38.3	8
13	92212RC4-3-137-2	34	45.5	37.8	13
14	OH 684	35	42.0	37.9	11
15	G 97041	38	41.5	39.4	4
16	G 86244	37	44.5	40.0	1
17	G 96332	33	38.0	35.5	28
18	IL 96-346	35	38.5	35.4	29
19	IL 97-2422	36	41.0	37.2	21
20	OH 685	35	42.5	37.3	20
21	OH 669	36	40.0	37.4	16
22	KY 90C-42-37-1	34	41.0	37.4	17
23	MO 980725	35	40.5	37.3	18
24	M94*1549-1	30	40.0	34.7	34
25	M98*2152	34	40.0	37.6	15
26	M98-2023	32	39.0	34.6	35
27	TW 044-094	36	43.0	37.9	12
28	TW 043-008	38	43.0	39.5	3
29	Daisy exp.	33	41.0	35.8	26
30	Husky exp.	34	38.5	35.4	30
31	Jekyl exp.	41	43.5	39.2	5
32	VA 98W-706	30	38.0	33.3	42
33	B 961378	31	38.5	33.9	37
34	B 970123	29	38.5	32.9	44
35	B 970051	31	36.5	33.4	40
36	961337A13-7-3	37	40.0	36.8	25
37	92226E2-5-3	30	39.5	33.1	43
38	Y98-912	35	41.5	38.8	7
39	Z98-919	34	42.0	37.0	23
40	Z98*912	33	41.5	37.3	19
41	AR 850-1-1	32	38.5	35.3	31
42	AR 910-9-1	33	41.5	38.0	9
43	T 126	30	38.0	33.6	39
44	T 127	32	40.5	35.6	27
LOCATION MEANS		33.9	40.5		

LODGING

		New Castle Co. DE	Quincy FL	Griffin GA	Aberdeen ID	Urbana IL	Wabash IN
		0-9	0-9	0-9	0-9	0-9	0-9
1	Caldwell	1.0	0.0	8	0.8	0.0	0.0
2	Foster	1.3	0.0	8	0.8	0.3	0.0
3	Patton	1.0	0.0	8	4.0	5.0	0.7
4	Roane	1.0	0.0	8	2.5	0.7	1.0
5	VA 98W-593	1.0	0.0	8	1.8	2.7	0.0
6	KY 90C-292-4-1	1.0	0.0	8	2.8	3.3	0.3
7	KY 90C-054-6	1.3	0.0	8	6.3	1.0	1.0
8	AR 839-28-1-2	1.0	0.0	8	1.3	2.0	0.0
9	VA 98W-591	1.0	0.0	8	0.0	0.0	0.0
10	T 124	1.0	0.0	8	2.0	0.0	0.0
11	MO 960903	1.3	0.0	8	2.5	4.0	0.0
12	MO 980525	2.0	0.0	8	5.8	0.7	0.0
13	92212RC4-3-137-2	1.0	0.0	2	1.3	2.0	0.0
14	OH 684	1.0	0.0	8	4.8	1.3	0.0
15	G 97041	1.0	0.0	8	5.5	6.3	0.7
16	G 86244	1.0	0.0	8	4.3	2.3	1.0
17	G 96332	1.0	0.0	8	2.3	2.0	0.7
18	IL 96-346	1.3	0.0	1	0.5	0.0	0.0
19	IL 97-2422	1.0	0.0	1	1.0	0.0	0.0
20	OH 685	1.0	0.0	8	0.0	0.0	0.0
21	OH 669	1.0	6.5	2	5.0	0.3	0.7
22	KY 90C-42-37-1	1.0	0.0	8	0.0	1.7	0.3
23	MO 980725	1.3	0.5	9	4.3	6.3	1.3
24	M94*1549-1	1.3	0.0	8	3.3	0.0	0.3
25	M98*2152	1.0	0.0	7	2.0	0.7	0.0
26	M98-2023	1.0	0.0	8	0.5	0.7	0.0
27	TW 044-094	1.0	0.0	8	2.8	0.0	0.0
28	TW 043-008	1.0	0.0	1	0.8	0.0	0.3
29	Daisy exp.	1.0	0.0	4	1.8	0.0	0.3
30	Husky exp.	1.0	0.0	1	1.0	0.0	0.0
31	Jekyl exp.	1.7	0.0	8	4.5	2.7	0.0
32	VA 98W-706	1.0	0.0	8	0.5	4.0	0.0
33	B 961378	1.3	0.0	8	6.0	4.7	0.0
34	B 970123	1.0	0.0	8	1.3	1.3	0.0
35	B 970051	1.7	0.0	8	4.5	1.7	0.0
36	961337A13-7-3	1.0	0.0	7	1.5	0.3	0.0
37	92226E2-5-3	1.0	0.0	1	0.0	0.0	0.0
38	Y98-912	1.0	0.0	8	2.0	1.7	0.0
39	Z98-919	1.0	0.0	1	0.0	0.0	0.0
40	Z98*912	1.0	0.0	8	1.5	0.0	0.0
41	AR 850-1-1	1.0	0.0	3	2.5	0.0	0.0
42	AR 910-9-1	1.3	0.0	4	4.0	2.7	0.0
43	T 126	1.0	0.0	1	0.5	0.0	0.0
44	T 127	1.0	0.0	1	4.3	1.0	0.0
LOCATION MEANS		1.1	0.2	6.1	2.4	1.4	0.2
DATE / GROWTH STAGE			22-May				

LODGING

		W. Lafayette IN	Logan Co. KY	Columbia MO	Ithaca NY	Smithville OH	Wooster OH
		0-9	0-9	0-9	0-9	%	1-5
1	Caldwell	4.8	0	0.3	0.7	70.0	1.7
2	Foster	5.0	0	1.0	0.7	80.0	1.3
3	Patton	4.8	0	1.3	0.0	20.0	1.7
4	Roane	4.3	0	0.3	0.7	85.0	3.7
5	VA 98W-593	4.8	0	0.0	1.0	95.0	4.7
6	KY 90C-292-4-1	4.3	0	0.3	0.7	89.0	1.7
7	KY 90C-054-6	5.5	0	1.7	0.0	50.0	3.3
8	AR 839-28-1-2	3.5	0	0.7	0.0	97.5	1.0
9	VA 98W-591	4.5	0	0.0	0.3	100.0	2.0
10	T 124	3.3	0	1.0	0.0	100.0	1.0
11	MO 960903	6.0	0	2.3	1.7	90.0	3.3
12	MO 980525	5.5	0	1.7	2.0	90.0	3.0
13	92212RC4-3-137-2	3.0	0	0.0	0.3	95.0	1.0
14	OH 684	4.5	0	0.7	0.0	25.0	1.0
15	G 97041	5.0	0	1.7	1.0	90.0	3.3
16	G 86244	5.0	0	1.7	0.0	50.0	1.7
17	G 96332	6.5	0	1.7	2.7	10.0	2.0
18	IL 96-346	4.5	0	0.3	0.0	85.0	1.3
19	IL 97-2422	5.0	0	1.0	0.0	80.0	1.0
20	OH 685	3.3	0	0.3	0.0	45.0	1.0
21	OH 669	5.5	0	1.3	0.0	92.5	4.3
22	KY 90C-42-37-1	4.3	0	0.7	0.0	65.0	1.0
23	MO 980725	6.0	0	2.7	0.3	97.5	3.7
24	M94*1549-1	4.0	0	1.0	1.0	52.5	1.3
25	M98*2152	4.5	0	0.7	0.0	30.0	3.7
26	M98-2023	4.5	0	0.0	0.0	65.0	3.0
27	TW 044-094	6.3	0	0.7	0.0	70.0	2.3
28	TW 043-008	5.3	0	0.7	0.0	67.5	1.0
29	Daisy exp.	4.3	0	0.0	0.0	5.0	1.0
30	Husky exp.	4.0	0	0.0	0.0	17.5	1.0
31	Jekyl exp.	7.5	0	1.0	0.0	97.5	7.0
32	VA 98W-706	4.8	0	0.0	1.7	100.0	1.0
33	B 961378	6.0	0	2.0	0.0	95.0	3.0
34	B 970123	4.8	0	0.3	0.0	60.0	1.7
35	B 970051	5.5	0	1.7	1.7	55.0	2.7
36	961337A13-7-3	4.8	0	0.0	0.0	97.5	1.3
37	92226E2-5-3	2.0	0	0.0	0.0	50.0	1.0
38	Y98-912	5.5	0	1.0	0.0	70.0	2.7
39	Z98-919	4.3	0	0.3	0.0	37.5	1.7
40	Z98*912	4.0	0	0.7	0.0	50.0	1.0
41	AR 850-1-1	3.8	0	1.0	1.0	70.0	1.0
42	AR 910-9-1	4.0	0	1.7	0.3	87.5	1.3
43	T 126	2.5	0	0.3	0.0	57.5	1.0
44	T 127	4.0	0	0.3	0.0	45.0	1.0
LOCATION MEANS		4.6	0.0	0.8	0.4	67.8	2.1
DATE / GROWTH STAGE					11		

LODGING

		Ridgetown ON	Blacksburg VA	Warsaw VA	Arlington WI
		0-9	0.2-10	0.2-10	0-9
1	Caldwell	4	1.7	2.4	1.9
2	Foster	2	0.4	0.8	0.2
3	Patton	2	1.2	0.2	1.6
4	Roane	4	1.3	3.0	3.1
5	VA 98W-593	2	1.5	0.8	0.2
6	KY 90C-292-4-1	2	0.9	1.6	1.2
7	KY 90C-054-6	3	2.7	0.2	0.2
8	AR 839-28-1-2	0	0.4	8.0	0.2
9	VA 98W-591	2	0.7	5.6	1.1
10	T 124	2	0.4	8.0	0.2
11	MO 960903	2	2.7	4.8	0.9
12	MO 980525	2	1.6	1.8	0.2
13	92212RC4-3-137-2	2	0.6	3.0	0.9
14	OH 684	0	0.7	2.4	1.1
15	G 97041	1	2.7	3.0	3.3
16	G 86244	3	2.8	2.4	1.8
17	G 96332	3	1.5	3.0	0.9
18	IL 96-346	0	0.9	0.4	0.2
19	IL 97-2422	0	0.7	0.2	0.2
20	OH 685	0	0.7	2.0	0.2
21	OH 669	2	1.9	6.4	0.2
22	KY 90C-42-37-1	0	0.2	5.6	3.3
23	MO 980725	2	2.4	7.2	2.7
24	M94*1549-1	3	1.2	8.0	0.2
25	M98*2152	3	0.2	6.4	0.2
26	M98-2023	2	0.6	4.8	1.3
27	TW 044-094	0	0.4	4.8	2.5
28	TW 043-008	0	0.9	4.8	0.2
29	Daisy exp.	2	0.7	4.8	0.5
30	Husky exp.	0	0.9	4.2	0.2
31	Jekyl exp.	3	0.2	9.0	0.2
32	VA 98W-706	2	0.5	3.0	1.5
33	B 961378	3	2.5	4.8	2.4
34	B 970123	2	1.9	2.4	0.2
35	B 970051	4	1.5	3.6	1.7
36	961337A13-7-3	2	0.6	0.2	0.9
37	92226E2-5-3	0	0.2	0.2	0.2
38	Y98-912	1	0.8	1.2	0.9
39	Z98-919	0	0.9	0.2	0.2
40	Z98*912	3	0.6	1.8	0.2
41	AR 850-1-1	0	0.2	1.2	0.2
42	AR 910-9-1	2	2.4	1.8	4.0
43	T 126	0	0.4	0.2	0.2
44	T 127	0	0.4	3.6	1.3
LOCATION MEANS		1.6	1.1	3.3	1.0
DATE / GROWTH STAGE			1-Jul	11-Jun	

WINTERKILL / FREEZE DAMAGE

		Bay AR freeze 1-9	Fayetteville AR freeze damage 0-2	Manhattan KS winter damage	Logan Co. KY survival %	Columbia MO survival %
1	Caldwell	1.3	0.0	4	100	87
2	Foster	1.0	0.0	3	100	93
3	Patton	1.7	0.0	2	100	93
4	Roane	2.0	0.0	4	100	89
5	VA 98W-593	1.0	0.0	3	100	91
6	KY 90C-292-4-1	1.7	0.3	3	100	95
7	KY 90C-054-6	1.7	0.0	3	100	92
8	AR 839-28-1-2	1.0	0.0	3	100	92
9	VA 98W-591	1.3	0.0	2	100	94
10	T 124	2.0	0.0	2	100	90
11	MO 960903	1.3	0.0	5	100	95
12	MO 980525	1.3	0.0	2	100	89
13	92212RC4-3-137-2	2.3	0.0	4	100	93
14	OH 684	1.0	0.0	4	100	91
15	G 97041	1.0	0.0	3	100	93
16	G 86244	1.3	0.0	3	100	92
17	G 96332	2.0	0.3	3	100	93
18	IL 96-346	1.0	0.0	3	100	93
19	IL 97-2422	1.0	0.0	3	100	94
20	OH 685	1.7	0.0	4	100	93
21	OH 669	1.0	0.0	3	100	85
22	KY 90C-42-37-1	1.0	0.0	4	100	93
23	MO 980725	1.3	0.0	3	100	91
24	M94*1549-1	3.0	1.0	9	100	87
25	M98*2152	1.0	0.0	3	100	92
26	M98-2023	1.0	0.0	3	100	88
27	TW 044-094	1.0	0.0	3	100	84
28	TW 043-008	1.0	0.0	3	100	91
29	Daisy exp.	1.0	0.0	2	100	91
30	Husky exp.	1.0	0.0	3	100	93
31	Jekyl exp.	1.0	0.0	3	100	93
32	VA 98W-706	1.3	0.0	3	100	91
33	B 961378	1.7	0.7	5	100	92
34	B 970123	1.7	0.3	4	100	93
35	B 970051	1.7	0.0	3	100	84
36	961337A13-7-3	1.0	0.0	4	100	92
37	92226E2-5-3	1.3	0.0	4	100	92
38	Y98-912	1.3	0.0	4	100	91
39	Z98-919	1.3	0.0	2	100	94
40	Z98*912	2.3	0.7	3	100	88
41	AR 850-1-1	3.7	1.0	8	100	82
42	AR 910-9-1	2.0	0.3	3	100	90
43	T 126	1.7	0.0	2	100	85
44	T 127	2.0	0.0	2	100	91
LOCATION MEANS		1.5	0.1	3.4	100.0	90.8
DATE / GROWTH STAGE			14-Mar	15-Mar		

WINTERKILL / FREEZE DAMAGE

		Columbia MO freeze injury %	Smithville OH survival %	Nairn ON survival %
1	Caldwell	2.0	98.0	88.7
2	Foster	1.7	98.5	93.3
3	Patton	1.3	100.0	95.3
4	Roane	2.7	95.0	97.3
5	VA 98W-593	1.0	100.0	94.0
6	KY 90C-292-4-1	1.0	100.0	94.7
7	KY 90C-054-6	2.7	100.0	90.7
8	AR 839-28-1-2	1.0	100.0	92.7
9	VA 98W-591	1.3	100.0	91.0
10	T 124	2.3	100.0	86.7
11	MO 960903	1.7	100.0	93.0
12	MO 980525	1.7	100.0	95.0
13	92212RC4-3-137-2	2.3	100.0	88.0
14	OH 684	2.3	100.0	93.3
15	G 97041	1.3	100.0	93.7
16	G 86244	0.7	100.0	91.7
17	G 96332	3.0	100.0	88.0
18	IL 96-346	0.7	100.0	93.0
19	IL 97-2422	1.0	100.0	90.7
20	OH 685	1.3	97.5	88.7
21	OH 669	1.0	100.0	89.3
22	KY 90C-42-37-1	1.3	100.0	79.0
23	MO 980725	1.0	100.0	94.7
24	M94*1549-1	5.0	100.0	93.3
25	M98*2152	1.3	100.0	92.3
26	M98-2023	3.0	100.0	91.0
27	TW 044-094	3.0	95.0	91.3
28	TW 043-008	1.0	100.0	96.0
29	Daisy exp.	0.7	100.0	93.0
30	Husky exp.	1.0	100.0	94.7
31	Jekyl exp.	1.3	100.0	94.7
32	VA 98W-706	1.3	100.0	88.0
33	B 961378	3.7	100.0	94.7
34	B 970123	2.3	100.0	91.3
35	B 970051	3.7	97.5	80.0
36	961337A13-7-3	1.0	100.0	91.7
37	92226E2-5-3	1.0	100.0	89.7
38	Y98-912	1.7	100.0	94.7
39	Z98-919	0.4	100.0	92.0
40	Z98*912	2.7	100.0	95.3
41	AR 850-1-1	6.7	40.0	93.0
42	AR 910-9-1	4.0	100.0	96.3
43	T 126	3.7	100.0	91.7
44	T 127	1.7	100.0	93.7
LOCATION MEANS		2.0	98.2	91.8
DATE / GROWTH STAGE				

LEAF RUST

		Bay AR	Kibler AR Inoc TNRL %	Keiser AR	Quincy FL	Delphi IN
		1-9		0-9	0-9	
1	Caldwell	3.0	3.0	4	0.5	3
2	Foster	2.7	5.0	3	0.5	6
3	Patton	2.0	4.5	1	0.0	6
4	Roane	3.7	0.7	2	0.0	8
5	VA 98W-593	3.7	9.7	3	0.5	4
6	KY 90C-292-4-1	4.0	9.7	7	1.5	7
7	KY 90C-054-6	3.3	12.3	5	3.0	6
8	AR 839-28-1-2	3.3	3.7	4	1.0	3
9	VA 98W-591	3.0	5.3	4	0.0	3
10	T 124	3.0	0.0	5	1.0	1
11	MO 960903	1.7	2.3	1	0.0	1
12	MO 980525	4.0	1.3	2	1.5	1
13	92212RC4-3-137-2	3.3	0.7	2	1.5	3
14	OH 684	6.3	6.3	4	6.5	4
15	G 97041	4.0	24.0	6	5.0	3
16	G 86244	3.7	6.3	5	1.5	3
17	G 96332	5.0	9.7	4	1.5	9
18	IL 96-346	2.3	0.0	2	0.5	2
19	IL 97-2422	2.7	0.0	3	0.5	2
20	OH 685	3.7	20.0	3	1.5	8
21	OH 669	8.3	80.0	8	7.0	8
22	KY 90C-42-37-1	2.3	0.7	2	0.0	8
23	MO 980725	4.3	9.7	6	2.5	6
24	M94*1549-1	3.3	2.0	3	0.0	3
25	M98*2152	1.7	1.3	1	1.0	3
26	M98-2023	3.0	1.3	2	1.0	6
27	TW 044-094	6.0	31.7	5	5.0	7
28	TW 043-008	2.0	7.0	2	0.5	9
29	Daisy exp.	8.3	36.7	9	3.0	9
30	Husky exp.	4.0	31.7	7	5.0	9
31	Jekyl exp.	5.7	29.0	8	2.5	8
32	VA 98W-706	3.3	1.3	3	0.5	4
33	B 961378	2.7	0.7	3	0.5	1
34	B 970123	2.7	0.0	2	4.0	6
35	B 970051	2.3	0.7	2	1.0	3
36	961337A13-7-3	2.7	1.3	2	0.5	3
37	92226E2-5-3	1.7	8.0	4	0.0	9
38	Y98-912	5.3	7.0	3	1.0	8
39	Z98-919	2.7	2.3	2	0.5	4
40	Z98*912	3.0	0.7	2	1.5	3
41	AR 850-1-1	1.7	0.0	3	0.0	1
42	AR 910-9-1	2.0	0.0	1	0.0	4
43	T 126	5.3	2.0	7	4.0	6
44	T 127	2.7	0.7	3	1.0	1
LOCATION MEANS		3.5	8.6	3.6	1.6	4.8
DATE / GROWTH STAGE			16-May		16-Apr	17-Jun

LEAF RUST

		Wabash IN	Wichita KS	Baton Rouge LA	Ingham Co. MI	St. Paul MN
			1-9		% on flag	
1	Caldwell	1.0	1	50 MS	1.0	10MR-MS
2	Foster	5.0	3	15 MS	0.5	40MR-MS
3	Patton	2.0	1	0	0.5	40MR-MS
4	Roane	1.7	1	7MR	0.5	60S
5	VA 98W-593	0.0	1	0	0.3	20MR-MS
6	KY 90C-292-4-1	4.3	1	30 MS	0.5	40S
7	KY 90C-054-6	2.7	1	50 MS	1.0	40MS-S
8	AR 839-28-1-2	2.7	1	0	0.0	40MS-S
9	VA 98W-591	0.0	1	0	0.0	winter kill
10	T 124	1.7	1	0	0.0	10R-MR
11	MO 960903	3.7	1	0	0.0	40MS-S
12	MO 980525	7.0	3	30 MR	1.3	30MS-S
13	92212RC4-3-137-2	2.0	1	15 MR	0.0	10R-MR
14	OH 684	8.0	1	50 MR	4.0	40S
15	G 97041	4.7	6	50 MS	0.5	40S
16	G 86244	2.0	3	50 MR	0.0	60S
17	G 96332	4.7	3	50 MS	0.0	5R
18	IL 96-346	1.0	1	0	0.0	30MS-S60S
19	IL 97-2422	0.3	1	0	0.0	60S
20	OH 685	5.3	1	0	1.5	40MR-MS
21	OH 669	7.0	6	70 S	1.0	60S
22	KY 90C-42-37-1	1.0	1	0	0.3	5R
23	MO 980725	6.0	3	50 MS	0.5	5R-MR
24	M94*1549-1	1.3	3	0	0.3	5R-MR
25	M98*2152	0.3	1	0	0.5	20R-MR
26	M98-2023	3.3	1	0	0.5	1-MR-MS
27	TW 044-094	7.0	3	50 S	1.5	60S
28	TW 043-008	6.7	1	0	0.8	40MS-S
29	Daisy exp.	8.3	3	50 S	3.5	20MR-MS
30	Husky exp.	7.7	1	70 S	1.5	30MR-MS
31	Jekyl exp.	6.3	1	70 S	0.8	60S
32	VA 98W-706	1.3	1	0	0.0	20MR-MS
33	B 961378	0.0	1	0	0.0	5R
34	B 970123	0.0	1	70 S	0.5	10MR-MS
35	B 970051	0.0	1	0	0.3	20MR-MS
36	961337A13-7-3	3.3	1	15 MS	0.8	0
37	92226E2-5-3	7.3	6	30 MR	1.0	0
38	Y98-912	3.3	1	15 MR	0.8	20MR-MS
39	Z98-919	1.0	1	0	0.3	30S
40	Z98*912	2.0	3	15 MR	0.5	20MR-MS
41	AR 850-1-1	1.0	1	0	0.3	winter kill
42	AR 910-9-1	0.7	3	0	0.0	60S
43	T 126	1.3	3	30 MS	0.5	40MR-S
44	T 127	2.3	3	0	0.3	5MR-MR
LOCATION MEANS		3.1	1.9		0.6	
DATE / GROWTH STAGE				15-Apr		

LEAF RUST

		Columbia MO	Plymouth NC	Ridgetown ON	Blacksburg VA	Warsaw VA
					0-9	0-9
1	Caldwell	0	3.5	2.0	1	3
2	Foster	0	5.0	2.5	4	0
3	Patton	0	2.0	1.5	0	1
4	Roane	0	3.0	1.5	3	1
5	VA 98W-593	0	1.0	2.0	0	1
6	KY 90C-292-4-1	0	4.5	1.5	7	6
7	KY 90C-054-6	0	4.5	1.0	3	4
8	AR 839-28-1-2	0	5.5	1.0	2	2
9	VA 98W-591	0	2.0	1.5	1	0
10	T 124	0	1.0	1.0	1	0
11	MO 960903	0	1.5	1.0	0	0
12	MO 980525	0	6.0	1.0	5	4
13	92212RC4-3-137-2	0	4.0	1.0	4	6
14	OH 684	0	7.0	3.0	7	8
15	G 97041	0	3.5	1.5	1	1
16	G 86244	0	1.5	1.0	2	0
17	G 96332	0	6.0	2.0	5	2
18	IL 96-346	0	2.0	1.0	0	0
19	IL 97-2422	0	1.0	1.0	0	0
20	OH 685	0	6.5	3.5	6	3
21	OH 669	0	6.5	4.5	1	0
22	KY 90C-42-37-1	0	1.5	1.0	0	0
23	MO 980725	0	7.0	2.0	6	2
24	M94*1549-1	0	3.5	1.5	1	1
25	M98*2152	0	3.5	1.0	2	2
26	M98-2023	0	5.5	1.0	5	3
27	TW 044-094	0	6.5	2.0	5	2
28	TW 043-008	0	6.0	3.0	1	5
29	Daisy exp.	0	5.5	2.0	7	3
30	Husky exp.	0	8.0	3.0	9	5
31	Jekyl exp.	0	3.0	4.0	0	1
32	VA 98W-706	0	3.5	1.0	2	0
33	B 961378	0	0.0	1.0	0	0
34	B 970123	0	5.0	1.0	4	1
35	B 970051	0	2.5	1.0	3	0
36	961337A13-7-3	0	5.0	1.5	3	1
37	92226E2-5-3	0	3.5	2.0	2	2
38	Y98-912	0	5.5	2.0	3	0
39	Z98-919	0	1.0	1.0	1	1
40	Z98*912	0	4.5	1.0	3	2
41	AR 850-1-1	0	0.0	1.0	0	0
42	AR 910-9-1	0	3.0	1.0	1	0
43	T 126	0	5.0	1.0	4	1
44	T 127	0	4.0	1.0	4	1
LOCATION MEANS		0.0	3.9	1.6	2.7	1.7
DATE / GROWTH STAGE		10.5		2-Jul	9-Jun	24-May

LEAF RUST

St. Paul
MN

Reactions produced by NA race*

		SCJB	LBBH	MBDS	CBGG	LBGT	CDBB	MCRJ	CLGH	TLGJ	Postulated Genes***
1	Caldwell	-	3	3;	-	3;	;	3	;lc2	; -3	+
2	Foster	3	-	;lc	;	;	;	3;	;	;	10,26,+
3	Patton	;3	;	;	;	;	;	;lc3	;	;	10,26,+
4	Roane	3	;l	;	3	;	;	;3	;3	3	11,+
5	VA98W-593	;	;	;	;	;	;	;	;	;	+
6	KY90C-292-4-1	; -3	;	;	3	3	;	3	3	3	10,11
7	KY90C-054-6	;	3	3	3	3-;	;	3;	;	3;	10,+
8	AR839-28-1-2	;	;	3-;	;	;	;	;	;	;	+
9	VA98W-591	;	;	;	;	;	3	;	;	;	24,+
10	T124	3	;	;	;	;	;	;	;	3	1,2a,11
11	MO 960903	;2	;lc2	3	;	;lc	;	;lc3	;	;2	3,17
12	MO 980525	3	3	3	3	3	3	3	3	3	0
13	92212RC4-3-137-2	lc;-3	;lc	;	;	;	;	3;	;	;l	26,+
14	OH 684	-	;	-	3	3	;	-	3	3	10,11
15	G 97041	;2c-3	3	3	;-3	3	;10,26	3	;	3	1,+
16	G 86244	3	3	3	;	3	;	3	;	3	1,+
17	G 96332	;lc-3	;lc	;	;	;	;	3;	;	;l	+
18	IL 96-346	3	;lc	;	;2c	;	;	3	;	;	26,+
19	IL 97-2422	3	3	2c-3	3	3	3	3	3	3	0
20	OH 685	-	;lc-3	3	3	3;	;	;	-	-	10,+
21	OH 669	;	-	;	;	;	3	-	;	;	24,+
22	KY 90C-42-37-1	3	-	;	-	;-3	;lc	3	;	;	26,+
23	MO 980725	3	3	3	3	3	3	3	3	3	0
24	M94*1549-1	;lc	;	;	;lc	;	;	3	;	;	3,10,26
25	M98*2152	;	;	;	;	;	;	;	;	;	+
26	M98-2023	; -3	0;	;	;	;	;	3-;	;	;	26,+
27	TW 044-094	;	;	;	3	3-;	;	;	;	3	10,11,+
28	TW 043-008	3	;	;	-	;	-	3	;	;	26,+
29	Daisy exp	3	3	3-;	;	3;	3	3	3;	;	+
30	Husky exp	3-;	;	;	;	3;	;	-	; -3	; -3	+
31	Jekyl exp	;	-	;	;	;	3-;	;	;	;	24,+
32	VA 98W-706	3	3;	;	3	;	; -3	;	;	;	+
33	B 961378	;	0;	0;	;	;	;	;	;	;2	+
34	B 970123	;lc	3	;	;	3	;	;	;	;	1,10,18,+
35	B 970051	3	3	3	3	3	3	3	3	3	0
36	961337A13-7-3	;lc2	;lc	;2c	;lc	;	;	-	;	;	+
37	92226E2-5-3	;lc	;lc	3	;	;-3	;	;	;	;	3,17
38	Y98-912	;	3	3	3	3	;	3	;	3;	10,+
39	Z98-919	;	;	;	;	;	;	;	;	;	+
40	Z98*912	;	;	;lc	3	;	;	3-;	3-;	; -3	3,10,11
41	AR 850-1-1	;	;	;	;	;	;	;	;	;	+
42	AR 910-9-1	3	;lc2	3	;	;lc	;lc	;lc	;	;lc2	17,+
43	T 126	3	3	3	3	3	3	3	3	3	0
44	T 127	3	;	;lc	3-;	3	;lc	3	; -3	3	10,11

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

**Virulence:

SCJB = 1,2a,2c,11,17,26
LBBH = 1,10,18
MBDS = 1,3,10,14a,17,B
CBGG = 3,10,11
LBGT = 1,10,11,14a,18,B

CDBB = 3,24
MCRJ = 1,3,3Ka,10,11,14a,26,
CLGH = 1,3,9,10,11,18
TLGJ = 1,2a,2c,3,9,10,11,14a

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

LEAF RUST

Blacksburg
VA

		TLGG02	TFPB02		TLGG02	TFPB02
1	Caldwell	S	S			
2	Foster	0;	23	LR		
3	Patton	0;	;12	Differentials		
4	Roane	12;	;12-			
5	VA 98W-593	0;	0;			
6	KY 90C-292-4-1	2;	;12	LR 1	S	S
7	KY 90C-054-6	;1	S	LR 2a	S	S
8	AR 839-28-1-2	2;	3;	LR 2c	S	S
9	VA 98W-591	0;	3;	LR 3a	S	S
10	T 124	S	S	LR 9	S	0R
11	MO 960903	;1	S	LR 16	;1-	23C
12	MO 980525	23;	S	LR 24	0;	S
13	92212RC4-3-137-2	0;	23;	LR 26	0;	S
14	OH 684	;1	;12	LR 3ka	23S	23
15	G 97041	S	S	LR 11	S	12;
16	G 86244	2;	S	LR 17	;1	;12N
17	G 96332	S	S	LR 30	;1-	;12
18	IL 96-346	0;	;1	LR 10	0;	S
19	IL 97-2422	;12	S	LR 18	S	;12
20	OH 685	0;	3;	LR 14a	S	S
21	OH 669	0;	S	LR B	23	S
22	KY 90C-42-37-1	0;	23			
23	MO 980725	3;	S			
24	M94*1549-1	0;	;12			
25	M98*2152	0;	;1-			
26	M98-2023	S/0;	;1			
27	TW 044-094	S	S			
28	TW 043-008	0;	;1-			
29	Daisy exp.	2;	S			
30	Husky exp.	S/0;	;1			
31	Jekyl exp.	;1	S			
32	VA 98W-706	S	S			
33	B 961378	S	0;			
34	B 970123	23	2;			
35	B 970051	S	S			
36	961337A13-7-3	0;	;12			
37	92226E2-5-3	0;	S			
38	Y98-912	0;	S			
39	Z98-919	0;	2;			
40	Z98*912	0;	;12-			
41	AR 850-1-1	0;	3;			
42	AR 910-9-1	23	2;			
43	T 126	;2	S			
44	T 127	S	;1			

STEM RUST

St. Paul
MN

1	Caldwell	60MS-S
2	Foster	TR
3	Patton	TR-MR
4	Roane	40MS-S
5	VA 98W-593	20R-MR
6	KY 90C-292-4-1	40MS-S
7	KY 90C-054-6	6-MS-S
8	AR 839-28-1-2	60S
9	VA 98W-591	---
10	T 124	6-S
11	MO 960903	60S
12	MO 980525	60S
13	92212RC4-3-137-2	5R-MR
14	OH 684	60S
15	G 97041	40MS-S
16	G 86244	60S
17	G 96332	30MS-S
18	IL 96-346	40MR
19	IL 97-2422	60S
20	OH 685	60MS-S
21	OH 669	40MR-MS
22	KY 90C-42-37-1	30MR
23	MO 980725	TR
24	M94*1549-1	20MR
25	M98*2152	TR-MR
26	M98-2023	30MR-MS
27	TW 044-094	40MS-S
28	TW 043-008	40MR-MS
29	Daisy exp.	40MS-S
30	Husky exp.	10R-MR
31	Jekyl exp.	30MR
32	VA 98W-706	60MS-S
33	B 961378	10S
34	B 970123	TR
35	B 970051	0
36	961337A13-7-3	TR
37	92226E2-5-3	0
38	Y98-912	40MS-S
39	Z98-919	TMR
40	Z98*912	30MS-S
41	AR 850-1-1	---
42	AR 910-9-1	60D
43	T 126	40MR-MS
44	T 127	40MS-S

STEM RUST

St. Paul
MN

		MN-80- 633B TPMK	72-MEX- 52A RTOO	99-EGY- 5B RRTS	69-MN 399 QTHJ	98-UGA 1A PTHS	01-TX- 27C TTTT
1	Caldwell	S	;	2	2-	S	S
2	Foster	2=	2-	2=,S	2-	2-	2=
3	Patton	0	;	2=	2=	2=	;
4	Roane	2-	S	S	S	S	S
5	VA 98W-593	2=	1	2=	2=	2=	;
6	KY 90C-292-4-1	2	S	23	2	S	S
7	KY 90C-054-6	2	2	S	S	S	S
8	AR 839-28-1-2	S	1	S	S	S	S
9	VA 98W-591	1	;	2=	2=	2=	1
10	T 124	2-	2	2	S	S	S
11	MO 960903	2	S	S	S	S	S
12	MO 980525	S	S	S	S	S	S
13	92212RC4-3-137-2	1	;	2=	2-	2=	;
14	OH 684	2	21	2	S	S	22+
15	G 97041	S	S,,1n	S	S	S	S
16	G 86244	2	L1n	2	S	S	S
17	G 96332	S	S	2	0,S	0,S	S
18	IL 96-346	2=	2=	1	2=	S	2=
19	IL 97-2422	S	S	S	S	S	S
20	OH 685	S	23	---	2-	S	S
21	OH 669	2=	2=	1	2-	2=	2-
22	KY 90C-42-37-1	---	---	1	2=	S	2=
23	MO 980725	23	S	S	S	S	S
24	M94*1549-1	2=	0;	2=	2=	S	2=
25	M98*2152	1	0;	1	2=	2=	2=
26	M98-2023	1	1	2=,S	2=	S	2=,S
27	TW 044-094	---	;	23	S	S	S
28	TW 043-008	0	2=	2=	2=	2=	2=
29	Daisy exp.	0	S	1	2	S	S
30	Husky exp.	---	2=,S	1	2=	S	2-,S
31	Jekyl exp.	1	;	1	2=	2=	2=
32	VA 98W-706	0	;	S	0,S	0,S	S
33	B 961378	2	X	2-	2-	S	S
34	B 970123	0	0	2	0	0	;
35	B 970051	0	23	1	0	0	;
36	961337A13-7-3	0	0;	1	2=	S	;
37	92226E2-5-3	0	;1-n	2	;	S	;
38	Y98-912	S	S	2	S	S	S
39	Z98-919	1	2=	1	2=	2	;1
40	Z98*912	S	;1n	2	S	S	S
41	AR 850-1-1	0	2-	1	2=	2=	;
42	AR 910-9-1	2	X	2	S	S	S
43	T 126	2	S,,1n	S	S	S	S
44	T 127	2	21,;	0	S	S	;1

STRIPE RUST

		Fayetteville AR	Pullman WA	Pullman WA	Pullman WA
		%	IT	%	Note
1	Caldwell	43.3	8	60	S
2	Foster	70.0	8	70	S
3	Patton	75.0	8	75	S
4	Roane	17.3	8	40	S
5	VA 98W-593	4.7	8	50	S
6	KY 90C-292-4-1	0.0	8	50	S
7	KY 90C-054-6	0.0	5-8	35	MS
8	AR 839-28-1-2	0.0	2	5	R
9	VA 98W-591	0.7	8	50	S
10	T 124	2.3	3	30	MS
11	MO 960903	13.0	8	35	MS
12	MO 980525	0.0	2	2	R
13	92212RC4-3-137-2	26.7	2	2	Seg
14	OH 684	0.0	8	40	S
15	G 97041	10.0	8	65	S
16	G 86244	0.0	3-5	20	MR
17	G 96332	3.7	2	5, 35	Seg
18	IL 96-346	85.0	8	65	S
19	IL 97-2422	0.0	2 or 8	2 or 35	MS
20	OH 685	50.0	8	50	S
21	OH 669	0.0	2 or 5	10	MR
22	KY 90C-42-37-1	43.3	8	40	S
23	MO 980725	10.7	2,8	2,25	Seg
24	M94*1549-1	36.7	8	65	S
25	M98*2152	56.7	8	65	S
26	M98-2023	56.7	8	45	S
27	TW 044-094	70.0	8	65	S
28	TW 043-008	80.0	8	80	S
29	Daisy exp.	21.7	8	60	S
30	Husky exp.	43.3	2,8	0,50	Seg
31	Jekyl exp.	12.3	8	30	MS
32	VA 98W-706	0.0	8	0,20	Seg
33	B 961378	56.7	8	70	S
34	B 970123	70.0	8	0,50	Seg
35	B 970051	43.3	8	40	S
36	961337A13-7-3	50.0	8	50	S
37	92226E2-5-3	0.0	0	0	R
38	Y98-912	0.0	0	0	R
39	Z98-919	0.0	0,8	0,30	Seg
40	Z98*912	0.0	0,8	0,15	Seg
41	AR 850-1-1	36.7	8	35	MS
42	AR 910-9-1	0.7	8	20	MS
43	T 126	36.7	8	20	MS
44	T 127	7.3	2	5	R
LOCATION MEANS		25.8			
DATE / GROWTH STAGE		6-May	5-Jul	5-Jul	5-Jul

SEPTORIA

	Bay AR	Kibler AR % green leaves	Urbana IL leaf blight	Lexington KY glume blotch	Baton Rouge LA nodorum	Ingham Co. MI
	1-9			0-5	%	0-9
1 Caldwell	3.7	12.3	5.7	4	-	6.2
2 Foster	4.0	5.3	2.0	2	-	5.1
3 Patton	3.7	3.7	4.3	2	30	6.6
4 Roane	3.7	20.0	2.0	3	-	5.1
5 VA 98W-593	4.7	25.0	0.3	3	3	2.2
6 KY 90C-292-4-1	3.7	31.7	7.3	3	15	5.1
7 KY 90C-054-6	4.0	38.3	6.7	3	-	5.1
8 AR 839-28-1-2	4.0	36.7	4.0	3	30	6.1
9 VA 98W-591	4.0	30.0	2.0	3	30	3.6
10 T 124	3.7	25.0	6.0	4	30	4.7
11 MO 960903	3.7	20.0	3.0	4	-	3.6
12 MO 980525	3.7	36.7	2.7	2	15	6.1
13 92212RC4-3-137-2	4.7	31.7	4.7	3	30	4.1
14 OH 684	4.7	43.3	5.0	2	-	3.7
15 G 97041	5.0	20.0	4.3	3	-	7.1
16 G 86244	4.7	25.0	5.3	4	-	8.6
17 G 96332	4.7	20.0	5.0	4	30	4.1
18 IL 96-346	3.0	7.0	1.0	3	-	7.7
19 IL 97-2422	4.0	36.7	2.3	3	-	7.2
20 OH 685	4.3	12.3	7.7	2	-	6.0
21 OH 669	4.3	1.3	4.0	4	-	6.1
22 KY 90C-42-37-1	3.7	15.0	5.7	3	15	4.7
23 MO 980725	4.3	20.0	4.3	2	30	7.7
24 M94*1549-1	5.7	5.3	1.0	2	15	6.5
25 M98*2152	4.0	12.3	0.7	3	-	5.5
26 M98-2023	3.7	15.0	4.3	2	15	6.6
27 TW 044-094	5.0	3.7	1.3	2	-	5.2
28 TW 043-008	3.3	3.7	2.3	3	30	5.7
29 Daisy exp.	5.0	9.7	3.7	3	-	4.5
30 Husky exp.	4.3	20.0	6.3	3	15	6.1
31 Jekyl exp.	4.3	25.0	3.3	3	7	3.2
32 VA 98W-706	3.3	30.0	2.7	3	7	4.7
33 B 961378	4.7	8.0	2.3	4	7	6.2
34 B 970123	4.3	5.0	3.0	3	-	2.6
35 B 970051	4.7	25.0	1.7	3	50	7.6
36 961337A13-7-3	3.0	36.7	1.0	3	7	5.6
37 92226E2-5-3	3.3	43.3	2.7	3	-	3.6
38 Y98-912	4.3	36.7	2.0	2	7	4.7
39 Z98-919	3.7	25.0	1.3	3	-	5.1
40 Z98*912	5.7	15.0	6.0	4	15	7.1
41 AR 850-1-1	4.7	9.7	2.0	3	7	9.1
42 AR 910-9-1	5.0	15.0	2.3	4	7	5.7
43 T 126	5.0	7.0	6.3	3	7	6.2
44 T 127	4.7	15.0	5.0	3	7	8.5
LOCATION MEANS	4.2	20.1	3.6	3.0		5.6
DATE / GROWTH STAGE		16-May		10.55	15-Apr	

SEPTORIA

	Columbia MO tritici % canopy	Nairn ON 0-9
1 Caldwell	37	7.0
2 Foster	12	6.0
3 Patton	17	6.5
4 Roane	11	5.5
5 VA 98W-593	6	5.0
6 KY 90C-292-4-1	20	8.0
7 KY 90C-054-6	33	7.0
8 AR 839-28-1-2	9	5.5
9 VA 98W-591	9	4.5
10 T 124	26	6.0
11 MO 960903	10	5.5
12 MO 980525	11	5.0
13 92212RC4-3-137-2	18	6.0
14 OH 684	9	5.5
15 G 97041	14	6.0
16 G 86244	24	7.5
17 G 96332	23	7.0
18 IL 96-346	11	5.5
19 IL 97-2422	14	7.0
20 OH 685	27	7.5
21 OH 669	40	6.5
22 KY 90C-42-37-1	37	5.5
23 MO 980725	12	6.5
24 M94*1549-1	14	5.5
25 M98*2152	8	6.0
26 M98-2023	13	6.5
27 TW 044-094	12	6.5
28 TW 043-008	12	7.5
29 Daisy exp.	13	9.0
30 Husky exp.	10	7.5
31 Jekyl exp.	22	6.0
32 VA 98W-706	8	6.5
33 B 961378	22	5.5
34 B 970123	12	6.0
35 B 970051	10	6.5
36 961337A13-7-3	7	7.0
37 92226E2-5-3	8	7.0
38 Y98-912	18	7.0
39 Z98-919	9	6.5
40 Z98*912	28	7.0
41 AR 850-1-1	14	8.0
42 AR 910-9-1	27	6.0
43 T 126	39	6.0
44 T 127	17	8.0
LOCATION MEANS	17.1	6.4
DATE / GROWTH STAGE	10.5	

FUSARIUM HEAD BLIGHT (SCAB)

		Urbana IL Incid. %	Urbana IL Severity %	Urbana IL Index 0-100	Delphi IN	Greensburg IN 1-5	Logan Co. KY 0-5
1	Caldwell	86.7	39.5	34.2	10	3.5	2
2	Foster	80.0	23.3	18.9	3	2.6	2
3	Patton	76.7	28.6	22.3	7	2.0	2
4	Roane	75.0	27.4	20.6	6	2.0	1
5	VA 98W-593	85.0	33.3	27.9	3	2.1	1
6	KY 90C-292-4-1	86.7	34.4	30.0	10	3.1	2
7	KY 90C-054-6	81.7	22.6	18.8	2	3.1	1
8	AR 839-28-1-2	90.0	51.2	46.1	2	4.0	2
9	VA 98W-591	81.7	31.5	25.5	0	2.5	1
10	T 124	91.7	48.6	44.4	3	3.0	2
11	MO 960903	86.7	44.3	39.0	6	2.6	2
12	MO 980525	75.0	24.0	18.0	0	1.3	1
13	92212RC4-3-137-2	61.7	32.1	19.8	4	2.5	3
14	OH 684	83.3	67.3	55.9	3	2.3	2
15	G 97041	92.3	69.1	63.3	9	2.6	2
16	G 86244	53.3	25.6	14.7	3	2.5	1
17	G 96332	68.3	14.0	9.6	0	2.1	2
18	IL 96-346	55.0	26.4	14.6	1	2.8	1
19	IL 97-2422	75.0	23.5	17.6	1	2.3	1
20	OH 685	93.3	51.6	48.3	10	3.3	2
21	OH 669	81.7	42.6	34.4	0	3.0	1
22	KY 90C-42-37-1	95.0	44.8	42.5	3	3.9	3
23	MO 980725	48.3	13.4	6.5	0	1.3	2
24	M94*1549-1	91.7	33.1	30.2	0	2.9	2
25	M98*2152	96.3	66.9	64.5	2	4.0	2
26	M98-2023	81.7	35.0	28.8	4	2.5	2
27	TW 044-094	83.3	41.5	34.3	2	2.9	1
28	TW 043-008	94.5	74.2	70.7	3	2.6	1
29	Daisy exp.	85.0	42.1	35.9	3	3.3	2
30	Husky exp.	93.3	61.0	57.3	3	3.5	2
31	Jekyl exp.	78.3	15.4	12.1	2	1.8	1
32	VA 98W-706	95.0	60.0	57.0	14	4.6	3
33	B 961378	92.3	28.2	26.0	8	3.0	2
34	B 970123	76.7	33.2	25.5	12	3.1	3
35	B 970051	89.0	30.7	27.5	0	2.9	1
36	961337A13-7-3	71.7	25.2	18.4	0	2.9	3
37	92226E2-5-3	71.7	30.8	22.2	3	3.3	2
38	Y98-912	80.0	26.4	21.0	0	2.1	1
39	Z98-919	93.3	46.4	43.5	44	2.9	2
40	Z98*912	100.0	0 91.4	91.4	9	4.3	3
41	AR 850-1-1	94.7	70.7	66.7	5	3.6	2
42	AR 910-9-1	91.7	41.5	38.2	3	3.6	2
43	T 126	91.7	43.4	39.6	5	2.6	2
44	T 127	96.2	63.6	61.3	2	3.1	2
LOCATION MEANS		83.0	39.3	35.1	4.8	2.9	1.8
DATE / GROWTH STAGE					11	11	10.55

POWDERY MILDEW

	Quincy FL	Griffin GA	Baton Rouge LA	Climax MI	Ingham Co. MI	Ithaca NY
	0-9				0-9	0-9
1 Caldwell	1.0	1		3.5	8.0	3.0
2 Foster	2.0	0		2.0	5.6	2.0
3 Patton	2.0	0		3.0	7.5	3.0
4 Roane	0.5	0		1.0	0.4	1.0
5 VA 98W-593	0.0	0		1.0	1.0	0.3
6 KY 90C-292-4-1	1.0	0		1.0	1.6	1.3
7 KY 90C-054-6	1.5	0		1.0	5.5	3.0
8 AR 839-28-1-2	2.0	2		3.0	7.4	3.3
9 VA 98W-591	0.0	0		1.0	0.7	0.7
10 T 124	0.5	2		1.5	2.2	2.7
11 MO 960903	0.0	0		1.5	5.7	1.3
12 MO 980525	2.0	1		2.5	6.9	2.3
13 92212RC4-3-137-2	1.0	0		1.0	6.2	2.0
14 OH 684	1.0	0		1.5	4.7	2.0
15 G 97041	1.0	0		2.5	7.7	2.7
16 G 86244	1.5	7		3.5	8.9	3.0
17 G 96332	1.5	1		2.0	6.2	2.3
18 IL 96-346	4.5	5		4.0	8.5	4.3
19 IL 97-2422	3.0	1		3.0	7.9	2.3
20 OH 685	0.5	0		1.0	6.0	1.3
21 OH 669	3.0	2		2.0	7.7	3.3
22 KY 90C-42-37-1	0.5	0		2.0	6.5	1.3
23 MO 980725	1.5	1		3.0	8.9	2.0
24 M94*1549-1	0.0	0		2.0	7.5	2.7
25 M98*2152	1.0	0		1.0	5.3	1.7
26 M98-2023	1.0	1		2.5	7.4	1.7
27 TW 044-094	2.5	0		1.5	6.6	2.7
28 TW 043-008	1.5	2		2.5	8.2	2.7
29 Daisy exp.	0.5	0		1.0	7.3	2.0
30 Husky exp.	2.5	2		3.0	7.9	3.3
31 Jekyl exp.	0.0	0		1.0	0.1	1.0
32 VA 98W-706	0.5	0		1.0	1.7	1.0
33 B 961378	2.0	0		3.0	8.0	2.3
34 B 970123	1.0	0		1.0	2.6	1.7
35 B 970051	1.0	0		1.0	6.5	1.7
36 961337A13-7-3	2.5	0		2.5	7.4	3.7
37 92226E2-5-3	1.0	0		1.0	2.7	1.3
38 Y98-912	1.5	0		2.5	6.7	2.3
39 Z98-919	0.0	0		1.0	3.2	3.0
40 Z98*912	1.0	0		2.0	4.9	2.0
41 AR 850-1-1	1.5	2	susc	4.0	9.2	3.7
42 AR 910-9-1	1.0	1		1.0	6.5	2.7
43 T 126	1.0	0		1.0	7.9	3.0
44 T 127	1.0	2		1.0	1.0	1.7
LOCATION MEANS	1.3	0.8		1.9	5.7	2.2
DATE / GROWTH STAGE	25-Mar	3-May		10		11

POWDERY MILDEW

		Wooster OH	Nairn ON	Ridgetown ON	Warsaw VA
		0-9	0-9		0-9
1	Caldwell	3.7	2.7	6.0	6
2	Foster	2.7	1.7	4.5	6
3	Patton	2.7	2.7	4.5	5
4	Roane	1.3	0.0	0.0	7
5	VA 98W-593	1.0	0.0	0.5	0
6	KY 90C-292-4-1	1.3	0.0	2.0	3
7	KY 90C-054-6	3.0	1.0	5.5	6
8	AR 839-28-1-2	4.3	1.7	3.5	5
9	VA 98W-591	1.0	0.0	0.5	0
10	T 124	3.7	0.0	3.0	6
11	MO 960903	1.0	0.7	3.0	1
12	MO 980525	3.3	2.7	4.5	4
13	92212RC4-3-137-2	2.7	0.3	2.0	3
14	OH 684	1.3	2.0	2.5	3
15	G 97041	4.0	2.3	5.5	5
16	G 86244	5.7	3.3	5.5	8
17	G 96332	1.3	1.7	3.5	2
18	IL 96-346	6.3	4.7	8.5	8
19	IL 97-2422	2.0	3.0	3.0	6
20	OH 685	1.7	0.3	1.5	2
21	OH 669	4.3	3.0	4.5	4
22	KY 90C-42-37-1	3.3	1.0	3.5	3
23	MO 980725	4.3	3.0	2.5	6
24	M94*1549-1	3.3	0.7	4.0	2
25	M98*2152	1.0	2.7	4.5	5
26	M98-2023	3.3	3.0	4.0	4
27	TW 044-094	2.7	2.7	4.0	6
28	TW 043-008	3.0	3.3	3.5	7
29	Daisy exp.	2.3	1.3	2.5	5
30	Husky exp.	3.3	4.3	6.5	8
31	Jekyl exp.	1.0	0.0	1.0	0
32	VA 98W-706	1.0	1.0	1.5	2
33	B 961378	3.3	2.7	5.0	6
34	B 970123	1.3	0.0	4.0	5
35	B 970051	2.7	0.3	3.5	3
36	961337A13-7-3	3.7	4.3	5.0	8
37	92226E2-5-3	1.3	0.0	1.0	2
38	Y98-912	2.3	4.3	4.5	7
39	Z98-919	2.3	1.7	3.0	8
40	Z98*912	3.7	2.3	3.0	5
41	AR 850-1-1	4.7	6.0	7.0	5
42	AR 910-9-1	3.7	1.0	5.5	6
43	T 126	3.3	1.3	2.5	2
44	T 127	4.0	0.7	3.5	5
LOCATION MEANS		2.8	1.8	3.6	4.5
DATE / GROWTH STAGE				11-Jun	

POWDERY MILDEW

Raleigh
NC

		ABK	Aso	E2-15	E3-14	F7-11
15	G 97041	S	M	M	S	S
16	G 86244	S	S	S	S	S
17	G 96332	S	S	S	S	S
18	IL 96-346	S	R	M	M	R
19	IL 97-2422	S	S	S	S	S
20	OH 685	S	R	S	S	S
21	OH 669	S	RS	RS	R	R
22	KY 90C-42-37-1	S	R	RM	M	R
23	MO 980725	S	S	S	S	S
24	M94*1549-1	M	RM	RM	R	R
25	M98*2152	S	S	S	S	S
26	M98-2023	S	RM	S	S	RS
27	TW 044-094	S	S	S	S	S
28	TW 043-008	M	R	M	M	R
29	Daisy exp.	R	R	M	RM	RM
	Chancellor	S	S	M	S	S
30	Husky exp.	S	S	S	M	S
31	Jekyl exp.	M	R	R	M	RM
32	VA 98W-706	S	S	S	S	S
33	B 961378	S	S	S	S	S
34	B 970123	S	M	M	S	S
35	B 970051	S	S	S	S	S
36	961337A13-7-3	S	S	S	S	S
37	92226E2-5-3	R	R	RM	R	R
38	Y98-912	S	S	S	S	S
39	Z98-919	S	R	M	M	R
40	Z98*912	S	S	S	S	S
41	AR 850-1-1	S	S	S	S	S
42	AR 910-9-1	S	M	S	S	S
43	T 126	S	S	S	M	S
44	T 127	S	M	S	S	S
	Chancellor	S	S	S	S	S

POWDERY MILDEW

Raleigh
NC

		F7-12	Mo10	Pm4	Yuma	WKin91
15	G 97041	S	S	S	M	S
16	G 86244	S	S	S	M	S
17	G 96332	S	S	S	S	S
18	IL 96-346	RM	M	R	R	S
19	IL 97-2422	S	S	S	M	S
20	OH 685	R	R	RM	RM	S
21	OH 669	S	S	RS	RM	M
22	KY 90C-42-37-1	RM	M	R	R	M
23	MO 980725	S	S	S	M	S
24	M94*1549-1	R	RM	R	R	S
25	M98*2152	S	S	S	M	S
26	M98-2023	S	S	S	M	S
27	TW 044-094	S	S	S	S	S
28	TW 043-008	RM	S	R	R	S
29	Daisy exp.	R	M	RS	RM	RM
	Chancellor	S	S	S	S	S
30	Husky exp.	RM	R	RM	RM	S
31	Jekyl exp.	R	RM	RM	R	RM
32	VA 98W-706	S	S	S	S	S
33	B 961378	S	S	S	S	S
34	B 970123	RM	S	M	M	S
35	B 970051	S	M	S	S	S
36	961337A13-7-3	S	S	RS	S	S
37	92226E2-5-3	R	R	R	R	R
38	Y98-912	S	S	S	S	S
39	Z98-919	R	S	R	R	S
40	Z98*912	S	S	S	S	S
41	AR 850-1-1	S	S	S	S	S
42	AR 910-9-1	S	S	M	S	S
43	T 126	S	S	M	S	S
44	T 127	S	S	S	S	S
	Chancellor	S	S	S	S	S

POWDERY MILDEW

Raleigh
NC

		W72-27	3a	6	127	144
15	G 97041	R	M	M	R	RS
16	G 86244	RM	S	S	S	S
17	G 96332	R	M	S	S	S
18	IL 96-346	R	R	RM	S	S
19	IL 97-2422	R	S	S	R	R
20	OH 685	R	R	M	R	R
21	OH 669	RM	RM	RM	M	M
22	KY 90C-42-37-1	R	R	R	M	S
23	MO 980725	M	S	S	S	S
24	M94*1549-1	R	R	R	S	S
25	M98*2152	R	M	S	R	R
26	M98-2023	R	M	S	S	S
27	TW 044-094	S	M	S	S	S
28	TW 043-008	R	R	RS	S	S
29	Daisy exp.	R	RM	S	S	M
	Chancellor	M	S	S	S	S
30	Husky exp.	R	M	R	RS	S
31	Jekyl exp.	M	R	M	S	RM
32	VA 98W-706	R	S	S	R	R
33	B 961378	M	S	S	M	RM
34	B 970123	R	M	S	R	R
35	B 970051	S	S	S	S	S
36	961337A13-7-3	M	RS	S	S	S
37	92226E2-5-3	R	R	R	S	R
38	Y98-912	R	S	S	R	R
39	Z98-919	R	R	R	S	S
40	Z98*912	S	S	S	S	S
41	AR 850-1-1	R	S	S	RM	R
42	AR 910-9-1	R	S	S	M	R
43	T 126	R	S	S	R	R
44	T 127	R	S	S	R	R
	Chancellor	M	S	S	S	S

POWDERY MILDEW

Raleigh
NC

	85063	#5	#7	#8	#9
15 G 97041	R	R	S	R	M
16 G 86244	S	S	S	S	S
17 G 96332	S	S	S	S	M
18 IL 96-346	S	S	S	S	S
19 IL 97-2422	R	R	S	R	M
20 OH 685	R	R	S	R	RM
21 OH 669	S	RS	S	S	RM
22 KY 90C-42-37-1	RM	S	S	RS	M
23 MO 980725	S	S	S	S	S
24 M94*1549-1	S	S	M	RS	S
25 M98*2152	R	R	M	R	S
26 M98-2023	S	S	S	S	S
27 TW 044-094	S	S	S	RS	S
28 TW 043-008	S	S	S	S	S
29 Daisy exp.	RM	R	S	R	S
Chancellor	S	S	S	RM	S
30 Husky exp.	RS	RM	RM	R	R
31 Jekyl exp.	S	M	RM	S	RM
32 VA 98W-706	R	R	S	R	S
33 B 961378	S	S	S	S	S
34 B 970123	R	R	M	R	M
35 B 970051	S	M	S	S	S
36 961337A13-7-3	S	S	S	S	S
37 92226E2-5-3	R	R	S	S	S
38 Y98-912	R	R	S	R	S
39 Z98-919	S	S	S	S	RM
40 Z98*912	S	S	S	S	S
41 AR 850-1-1	R	R	S	R	S
42 AR 910-9-1	R	R	S	S	R
43 T 126	R	R	S	R	RM
44 T 127	R	R	S	R	R
Chancellor	S	S	S	S	RM

POWDERY MILDEW

Raleigh
NC

		#10	43a1	43a2	73b2	101a2
15	G 97041	R	S	S	M	R
16	G 86244	S	S	S	S	RM
17	G 96332	S	S	S	S	M
18	IL 96-346	S	RM	M	S	M
19	IL 97-2422	R	S	S	S	R
20	OH 685	R	S	M	R	R
21	OH 669	R	M	R	R	M
22	KY 90C-42-37-1	S	R	R	M	RM
23	MO 980725	S	S	S	RM	S
24	M94*1549-1	S	RM	R	M	S
25	M98*2152	R	S	S	S	R
26	M98-2023	S	S	RM	S	S
27	TW 044-094	S	S	S	S	S
28	TW 043-008	S	R	RM	S	S
29	Daisy exp.	M	R	R	RS	M
	Chancellor	S	S	S	S	S
30	Husky exp.	R	RM	S	S	R
31	Jekyl exp.	R	R	M	RM	S
32	VA 98W-706	R	S	S	S	R
33	B 961378	S	S	S	S	S
34	B 970123	RM	S	S	M	R
35	B 970051	S	S	S	S	S
36	961337A13-7-3	S	R	S	S	S
37	92226E2-5-3	R	R	R	R	S
38	Y98-912	R	S	S	S	R
39	Z98-919	S	M	M	S	S
40	Z98*912	S	S	S	S	S
41	AR 850-1-1	R	S	S	S	R
42	AR 910-9-1	S	S	S	S	RM
43	T 126	R	S	S	S	R
44	T 127	R	S	S	S	R
	Chancellor	S	S	S	S	S

POWDERY MILDEW

Raleigh
NC

		153a2	156b1	169-1b	209a2	216a
15	G 97041	S	S	R	S	S
16	G 86244	S	S	S	S	S
17	G 96332	S	S	S	S	S
18	IL 96-346	RM	R	S	RM	M
19	IL 97-2422	S	S	R	S	S
20	OH 685	S	S	RS	RM	R
21	OH 669	RM	R	S	R	S
22	KY 90C-42-37-1	RM	RM	S	R	R
23	MO 980725	S	S	S	S	S
24	M94*1549-1	M	R	S	R	R
25	M98*2152	S	S	R	S	R
26	M98-2023	S	S	S	RS	RM
27	TW 044-094	S	S	S	S	S
28	TW 043-008	RM	R	S	RM	R
29	Daisy exp.	RS	M	R	R	RM
	Chancellor	S	S	S	S	S
30	Husky exp.	S	S	R	RM	RS
31	Jekyl exp.	RM	RM	RM	M	RM
32	VA 98W-706	S	S	R	S	S
33	B 961378	S	S	S	S	S
34	B 970123	M	S	R	M	M
35	B 970051	M	S	S	S	S
36	961337A13-7-3	M	S	S	RM	RS
37	92226E2-5-3	R	R	R	R	M
38	Y98-912	S	S	R	S	S
39	Z98-919	R	R	S	R	RM
40	Z98*912	S	S	S	S	S
41	AR 850-1-1	S	S	R	S	S
42	AR 910-9-1	S	M	R	S	S
43	T 126	S	M	R	S	S
44	T 127	S	S	S	S	S
	Chancellor	S	S	S	S	S

POWDERY MILDEW

Blacksburg
VA

		Warsaw0102	Roane02		Warsaw0102	Roane02
1	Caldwell	3MS	34S			
2	Foster	4S	0R			
3	Patton	34S	0R/TS	PM		
4	Roane	3MS	4S	Differentials		
5	VA 98W-593	0R	0R			
6	KY 90C-292-4-1	34MS	23I	PM1	0R	0R
7	KY 90C-054-6	4S	23MSI	PM2	4S	4S
8	AR 839-28-1-2	4S	4S	PM3A	4S	4S
9	VA 98W-591	0R	0R/TS	PM3B	34MS	0R
10	T 124	3MS	3MS	PM3C	4S	34S
11	MO 960903	12MR	3MS	PM4A	4S	4S
12	MO 980525	4S	4S	PM4B	4S	4S
13	92212RC4-3-137-2	4S	0R/TS	PM5	4S	34S
14	OH 684	34S	4S	PM6	4S	4S
15	G 97041	34S	4S	PM7	4S	4S
16	G 86244	4S	4S	PM8	3MS	0R
17	G 96332	34S	4S	PM17	0;R	0R
18	IL 96-346	4S	0R	MICHIGAN AMBER	4S	4S
19	IL 97-2422	4S	4S			
20	OH 685	23IMS	4S			
21	OH 669	4S/0R	34S			
22	KY 90C-42-37-1	4S	0R/TS			
23	MO 980725	4S	4S			
24	M94*1549-1	12IMR	0R			
25	M98*2152	4S	4S			
26	M98-2023	3MS	4S			
27	TW 044-094	4S	4S			
28	TW 043-008	4S	0R			
29	Daisy exp.	12IMR	34MS			
30	Husky exp.	23MSI	34MS			
31	Jekyl exp.	0R	0R			
32	VA 98W-706	34S	4S			
33	B 961378	4S	4S			
34	B 970123	23I	3MS			
35	B 970051	3MS	4S			
36	961337A13-7-3	4S	23MSI			
37	92226E2-5-3	3MS	4S			
38	Y98-912	4S	4S			
39	Z98-919	3MS	0R/TS			
40	Z98*912	4S	NA			
41	AR 850-1-1	4S	4S			
42	AR 910-9-1	4S	34MS			
43	T 126	4S	4S			
44	T 127	3MS	3MS			

RHIZOCTONIA

		Lafayette IN
		1-5
1	Caldwell	3
2	Foster	3
3	Patton	1
4	Roane	3
5	VA 98W-593	2
6	KY 90C-292-4-1	4
7	KY 90C-054-6	3
8	AR 839-28-1-2	3
9	VA 98W-591	2
10	T 124	4
11	MO 960903	2
12	MO 980525	4
13	92212RC4-3-137-2	3
14	OH 684	4
15	G 97041	4
16	G 86244	3
17	G 96332	3
18	IL 96-346	2
19	IL 97-2422	4
20	OH 685	4
21	OH 669	1
22	KY 90C-42-37-1	2
23	MO 980725	3
24	M94*1549-1	4
25	M98*2152	2
26	M98-2023	3
27	TW 044-094	4
28	TW 043-008	2
29	Daisy exp.	2
30	Husky exp.	2
31	Jekyl exp.	4
32	VA 98W-706	3
33	B 961378	4
34	B 970123	3
35	B 970051	4
36	961337A13-7-3	2
37	92226E2-5-3	4
38	Y98-912	3
39	Z98-919	1
40	Z98*912	3
41	AR 850-1-1	3
42	AR 910-9-1	5
43	T 126	4
44	T 127	3
LOCATION MEANS		3
DATE / GROWTH STAGE		6

TAKE-ALL

		Knoxville TN
		%
1	Caldwell	12
2	Foster	18
3	Patton	33
4	Roane	5
5	VA 98W-593	4
6	KY 90C-292-4-1	12
7	KY 90C-054-6	7
8	AR 839-28-1-2	13
9	VA 98W-591	20
10	T 124	12
11	MO 960903	10
12	MO 980525	0
13	92212RC4-3-137-2	7
14	OH 684	2
15	G 97041	9
16	G 86244	5
17	G 96332	4
18	IL 96-346	7
19	IL 97-2422	15
20	OH 685	4
21	OH 669	9
22	KY 90C-42-37-1	13
23	MO 980725	10
24	M94*1549-1	10
25	M98*2152	2
26	M98-2023	15
27	TW 044-094	7
28	TW 043-008	1
29	Daisy exp.	12
30	Husky exp.	13
31	Jekyl exp.	12
32	VA 98W-706	10
33	B 961378	12
34	B 970123	20
35	B 970051	4
36	961337A13-7-3	6
37	92226E2-5-3	15
38	Y98-912	6
39	Z98-919	9
40	Z98*912	11
41	AR 850-1-1	9
42	AR 910-9-1	21
43	T 126	10
44	T 127	8
LOCATION MEANS		10.1

TAN SPOT

		Winfield KS
1	Caldwell	6
2	Foster	6
3	Patton	3
4	Roane	5
5	VA 98W-593	4
6	KY 90C-292-4-1	4
7	KY 90C-054-6	6
8	AR 839-28-1-2	4
9	VA 98W-591	5
10	T 124	7
11	MO 960903	2
12	MO 980525	4
13	92212RC4-3-137-2	3
14	OH 684	3
15	G 97041	5
16	G 86244	5
17	G 96332	4
18	IL 96-346	2
19	IL 97-2422	3
20	OH 685	5
21	OH 669	3
22	KY 90C-42-37-1	5
23	MO 980725	3
24	M94*1549-1	2
25	M98*2152	2
26	M98-2023	4
27	TW 044-094	3
28	TW 043-008	2
29	Daisy exp.	7
30	Husky exp.	3
31	Jekyl exp.	2
32	VA 98W-706	4
33	B 961378	2
34	B 970123	4
35	B 970051	6
36	961337A13-7-3	5
37	92226E2-5-3	3
38	Y98-912	3
39	Z98-919	4
40	Z98*912	5
41	AR 850-1-1	4
42	AR 910-9-1	4
43	T 126	6
44	T 127	7
LOCATION MEANS		4.1

BYDV

		Urbana IL rating 0-9	Urbana IL dwarfing %	Lexington KY 0-5	Columbia MO canopy %	Blacksburg VA 0-9	Warsaw VA 0-9
1	Caldwell	7.5	16.5	4	10	1	1.8
2	Foster	3.0	7.4	2	4	1	1.8
3	Patton	5.0	9.4	3	6	2	1.8
4	Roane	6.0	8.6	1	4	1	1.8
5	VA 98W-593	5.5	9.7	4	3	1	1.8
6	KY 90C-292-4-1	6.5	10.5	3	7	1	1.8
7	KY 90C-054-6	7.5	37.6	2	6	1	3.6
8	AR 839-28-1-2	4.0	12.9	3	4	1	3.6
9	VA 98W-591	5.5	10.0	2	5	2	1.8
10	T 124	6.0	11.1	2	11	2	3.6
11	MO 960903	5.0	11.2	4	2	2	3.6
12	MO 980525	5.0	14.1	3	1	1	3.6
13	92212RC4-3-137-2	4.0	0.0	1	4	1	1.8
14	OH 684	6.0	3.4	3	5	1	3.6
15	G 97041	5.5	10.3	3	7	3	1.8
16	G 86244	6.0	6.1	2	7	2	1.8
17	G 96332	7.5	16.3	2	4	2	5.4
18	IL 96-346	5.5	13.9	3	3	3	3.6
19	IL 97-2422	5.5	14.5	3	14	1	0.0
20	OH 685	5.0	0.0	3	4	2	1.8
21	OH 669	6.0	14.1	3	18	2	1.8
22	KY 90C-42-37-1	5.5	13.1	3	11	2	5.4
23	MO 980725	3.5	0.0	2	1	2	3.6
24	M94*1549-1	5.0	3.3	2	5	3	3.6
25	M98*2152	3.0	0.0	1	8	2	3.6
26	M98-2023	6.5	13.7	4	4	1	3.6
27	TW 044-094	6.0	15.5	3	10	3	3.6
28	TW 043-008	6.0	11.5	4	10	2	3.6
29	Daisy exp.	7.0	15.1	5	11	1	3.6
30	Husky exp.	7.0	10.8	2	4	1	3.6
31	Jekyl exp.	7.0	18.4	4	12	2	1.8
32	VA 98W-706	6.0	9.3	3	10	2	3.6
33	B 961378	5.5	8.6	3	9	2	5.4
34	B 970123	5.5	3.7	2	8	1	3.6
35	B 970051	3.0	0.0	1	7	2	3.6
36	961337A13-7-3	5.5	19.5	3	6	2	5.4
37	92226E2-5-3	6.0	22.5	2	3	1	5.4
38	Y98-912	5.5	3.2	2	9	2	3.6
39	Z98-919	3.5	4.9	2	6	1	3.6
40	Z98*912	6.0	11.5	2	2	1	3.6
41	AR 850-1-1	4.5	1.7	3	4	2	3.6
42	AR 910-9-1	5.5	12.1	3	5	1	3.6
43	T 126	7.0	11.0	2	5	2	5.4
44	T 127	6.5	15.5	3	5	1	1.8
LOCATION MEANS		5.5	10.5	2.7	6.5	1.6	3.2
DATE / GROWTH STAGE				10.5		15-May	24-May

VIRUSES

		Clay Co. AR spindle streak	Jackson Co. AR soilborne + spindle streak	Urbana IL SBMV 0-9
1	Caldwell	3.7	5.0	6.0
2	Foster	4.3	2.7	1.5
3	Patton	0.0	2.7	1.0
4	Roane	3.7	3.0	5.0
5	VA 98W-593	3.7	4.3	7.5
6	KY 90C-292-4-1	5.0	3.0	2.0
7	KY 90C-054-6	2.0	1.0	3.0
8	AR 839-28-1-2	0.0	1.0	1.5
9	VA 98W-591	1.7	2.0	3.0
10	T 124	4.3	3.7	4.0
11	MO 960903	2.0	3.7	3.5
12	MO 980525	5.0	2.0	4.0
13	92212RC4-3-137-2	0.0	0.0	2.0
14	OH 684	5.0	1.7	1.0
15	G 97041	3.0	3.7	5.5
16	G 86244	3.0	2.0	2.5
17	G 96332	4.3	3.7	6.5
18	IL 96-346	3.0	2.7	4.5
19	IL 97-2422	3.7	3.0	1.0
20	OH 685	5.0	2.7	2.5
21	OH 669	2.0	3.7	1.5
22	KY 90C-42-37-1	0.0	1.0	1.0
23	MO 980725	5.0	3.0	7.0
24	M94*1549-1	5.0	3.0	8.5
25	M98*2152	1.0	0.0	3.0
26	M98-2023	2.0	2.0	6.0
27	TW 044-094	5.0	2.7	8.5
28	TW 043-008	0.0	3.0	1.5
29	Daisy exp.	0.0	5.3	7.5
30	Husky exp.	0.0	3.3	2.0
31	Jekyl exp.	3.0	4.3	8.5
32	VA 98W-706	0.0	3.0	2.5
33	B 961378	3.0	3.0	5.0
34	B 970123	0.0	2.0	3.0
35	B 970051	5.0	3.0	7.0
36	961337A13-7-3	0.0	2.0	1.5
37	92226E2-5-3	5.0	1.0	3.0
38	Y98-912	1.0	2.0	2.5
39	Z98-919	0.0	0.0	1.5
40	Z98*912	4.3	3.0	7.5
41	AR 850-1-1	0.0	3.0	6.0
42	AR 910-9-1	5.0	2.0	7.5
43	T 126	5.0	4.3	7.5
44	T 127	0.0	3.0	2.5
LOCATION MEANS		2.6	2.6	4.1
DATE / GROWTH STAGE		4-Apr	5-Apr	

HESSIAN FLY

W. Lafayette
IN

		Biotype B	Biotype C	Biotype D	Biotype E	Biotype L
1	Caldwell	14 - 1	0 - 14	0 - 16	13 - 0	0 - 18
2	Foster	0 - 18	0 - 15	0 - 10	0 - 13	0 - 16
3	Patton	15 - 0	12 - 0	14 - 0	12 - 0	0 - 16
4	Roane	17 - 0	13 - 1	0 - 15	16 - 0	0 - 15
5	VA 98W-593	0 - 15	0 - 12	0 - 12	0 - 11	0 - 11
6	KY 90C-292-4-1	0 - 16	0 - 15	0 - 16	0 - 12	0 - 13
7	KY 90C-054-6	0 - 13	0 - 12	0 - 12	0 - 14	0 - 16
8	AR 839-28-1-2	0 - 14	0 - 17	0 - 18	0 - 14	0 - 20
9	VA 98W-591	0 - 13	0 - 15	0 - 11	0 - 12	0 - 14
10	T 124	0 - 18	0 - 17	0 - 10	0 - 12	0 - 19
11	MO 960903	0 - 15	0 - 18	0 - 19	0 - 13	0 - 14
12	MO 980525	0 - 14	0 - 17	0 - 17	0 - 12	0 - 14
13	92212RC4-3-137-2	17 - 0	17 - 0	17 - 0	16 - 0	0 - 16
14	OH 684	0 - 11	1 - 14	0 - 14	8 - 2	0 - 14
15	G 97041	0 - 16	0 - 16	0 - 14	1 - 11	0 - 18
16	G 86244	15 - 2	1 - 15	0 - 14	13 - 0	0 - 15
17	G 96332	0 - 14	0 - 14	0 - 19	0 - 12	0 - 14
18	IL 96-346	0 - 13	0 - 13	0 - 15	0 - 12	0 - 16
19	IL 97-2422	0 - 14	0 - 13	0 - 12	0 - 12	0 - 13
20	OH 685	0 - 13	3 - 12	0 - 12	11 - 1	0 - 14
21	OH 669	0 - 15	0 - 16	0 - 13	0 - 12	0 - 14
22	KY 90C-42-37-1	0 - 12	0 - 9	0 - 14	0 - 9	0 - 13
23	MO 980725	0 - 15	0 - 14	0 - 19	0 - 14	0 - 11
24	M94*1549-1	20 - 0	0 - 15	0 - 14	9 - 0	0 - 13
25	M98*2152	14 - 3	0 - 16	0 - 15	10 - 1	0 - 13
26	M98-2023	0 - 10	0 - 15	0 - 14	0 - 12	0 - 15
27	TW 044-094	1 - 12	0 - 14	0 - 10	0 - 12	0 - 11
28	TW 043-008	0 - 11	12 - 2	0 - 12	9 - 3	0 - 15
29	Daisy exp.	0 - 18	1 - 15	0 - 17	14 - 0	0 - 16
30	Husky exp.	0 - 12	0 - 16	0 - 18	0 - 15	0 - 15
31	Jekyl exp.	5 - 14	0 - 19	0 - 18	16 - 0	0 - 9
32	VA 98W-706	0 - 14	0 - 14	0 - 12	0 - 13	0 - 14
33	B 961378	13 - 0	0 - 16	0 - 15	13 - 0	0 - 13
34	B 970123	0 - 18	0 - 16	0 - 17	0 - 16	0 - 18
35	B 970051	11 - 0	6 - 7	0 - 13	8 - 0	0 - 15
36	961337A13-7-3	0 - 13	2 - 10	1 - 6	0 - 11	0 - 11
37	92226E2-5-3	16 - 0	7 - 6	14 - 0	5 - 2	11 - 0
38	Y98-912	0 - 10	0 - 14	0 - 15	0 - 11	0 - 16
39	Z98-919	0 - 9	0 - 17	0 - 16	0 - 13	0 - 13
40	Z98*912	0 - 8	13 - 1	0 - 13	0 - 12	0 - 10
41	AR 850-1-1	0 - 12	0 - 16	0 - 16	0 - 13	0 - 12
42	AR 910-9-1	0 - 10	0 - 13	0 - 13	4 - 10	0 - 13
43	T 126	0 - 14	0 - 15	0 - 16	0 - 13	0 - 13
44	T 127	0 - 13	0 - 12	0 - 15	13 - 0	0 - 16

MATURITY

		Ridgetown ON
		julian
1	Caldwell	190
2	Foster	193
3	Patton	192
4	Roane	193
5	VA 98W-593	194
6	KY 90C-292-4-1	191
7	KY 90C-054-6	193
8	AR 839-28-1-2	192
9	VA 98W-591	193
10	T 124	193
11	MO 960903	192
12	MO 980525	191
13	92212RC4-3-137-2	192
14	OH 684	194
15	G 97041	194
16	G 86244	193
17	G 96332	192
18	IL 96-346	193
19	IL 97-2422	193
20	OH 685	192
21	OH 669	193
22	KY 90C-42-37-1	192
23	MO 980725	190
24	M94*1549-1	191
25	M98*2152	195
26	M98-2023	191
27	TW 044-094	193
28	TW 043-008	192
29	Daisy exp.	190
30	Husky exp.	192
31	Jekyl exp.	196
32	VA 98W-706	192
33	B 961378	195
34	B 970123	190
35	B 970051	190
36	961337A13-7-3	192
37	92226E2-5-3	192
38	Y98-912	193
39	Z98-919	192
40	Z98*912	192
41	AR 850-1-1	190
42	AR 910-9-1	191
43	T 126	191
44	T 127	192
LOCATION MEANS		192.2

STAND

	Bay AR	Knoxville TN
	1-9	%
1 Caldwell	4.7	83
2 Foster	5.3	90
3 Patton	5.7	83
4 Roane	4.7	90
5 VA 98W-593	4.3	95
6 KY 90C-292-4-1	4.3	90
7 KY 90C-054-6	5.0	82
8 AR 839-28-1-2	4.3	85
9 VA 98W-591	4.3	95
10 T 124	4.3	83
11 MO 960903	4.3	88
12 MO 980525	5.3	85
13 92212RC4-3-137-2	4.0	85
14 OH 684	4.0	72
15 G 97041	4.7	87
16 G 86244	4.3	78
17 G 96332	4.3	83
18 IL 96-346	5.0	83
19 IL 97-2422	5.0	83
20 OH 685	5.3	82
21 OH 669	5.3	88
22 KY 90C-42-37-1	6.0	82
23 MO 980725	5.3	80
24 M94*1549-1	5.0	90
25 M98*2152	5.3	87
26 M98-2023	5.0	85
27 TW 044-094	6.0	88
28 TW 043-008	5.7	85
29 Daisy exp.	5.0	80
30 Husky exp.	5.3	87
31 Jekyl exp.	5.0	80
32 VA 98W-706	5.3	82
33 B 961378	5.7	85
34 B 970123	6.0	87
35 B 970051	6.0	83
36 961337A13-7-3	5.7	83
37 92226E2-5-3	5.0	80
38 Y98-912	5.3	83
39 Z98-919	5.3	87
40 Z98*912	5.3	77
41 AR 850-1-1	4.0	88
42 AR 910-9-1	4.3	90
43 T 126	5.7	85
44 T 127	5.3	85
LOCATION MEANS	5.0	84.8
DATE / GROWTH STAGE		12-Apr

VERNALIZATION

Baton Rouge
LA

1	Caldwell	NV
2	Foster	NV
3	Patton	PV
4	Roane	NV
5	VA 98W-593	NV
6	KY 90C-292-4-1	PV
7	KY 90C-054-6	NV
8	AR 839-28-1-2	V
9	VA 98W-591	V
10	T 124	V
11	MO 960903	NV
12	MO 980525	PV
13	92212RC4-3-137-2	V
14	OH 684	NV
15	G 97041	NV
16	G 86244	NV
17	G 96332	V
18	IL 96-346	NV
19	IL 97-2422	NV
20	OH 685	NV
21	OH 669	NV
22	KY 90C-42-37-1	PV
23	MO 980725	V
24	M94*1549-1	V
25	M98*2152	NV
26	M98-2023	NV
27	TW 044-094	NV
28	TW 043-008	NV
29	Daisy exp.	NV
30	Husky exp.	NV
31	Jekyl exp.	PV
32	VA 98W-706	V
33	B 961378	V
34	B 970123	NV
35	B 970051	V
36	961337A13-7-3	PV
37	92226E2-5-3	NV
38	Y98-912	PV
39	Z98-919	NV
40	Z98*912	V
41	AR 850-1-1	V
42	AR 910-9-1	V
43	T 126	V
44	T 127	V

DATE / GROWTH STAGE

15-Apr

1RS STATUS

Lincoln
NE

1	Caldwell	Non.1RS
2	Foster	1BL.1RS
3	Patton	1BL.1RS
4	Roane	n.d.
5	VA 98W-593	1AL.1RS
6	KY 90C-292-4-1	Non.1RS
7	KY 90C-054-6	Non.1RS
8	AR 839-28-1-2	Non.1RS
9	VA 98W-591	1AL.1RS
10	T 124	Non.1RS
11	MO 960903	Non.1RS
12	MO 980525	Non.1RS
13	92212RC4-3-137-2	1BL.1RS
14	OH 684	Non.1RS
15	G 97041	Non.1RS
16	G 86244	Non.1RS
17	G 96332	Non.1RS
18	IL 96-346	1BL.1RS
19	IL 97-2422	Non.1RS
20	OH 685	Non.1RS
21	OH 669	1AL.1RS
22	KY 90C-42-37-1	1BL.1RS
23	MO 980725	Non.1RS
24	M94*1549-1	1BL.1RS
25	M98*2152	1BL.1RS
26	M98-2023	1BL.1RS
27	TW 044-094	Non.1RS
28	TW 043-008	1BL.1RS
29	Daisy exp.	Non.1RS
30	Husky exp.	Non.1RS
31	Jekyl exp.	1AL.1RS
32	VA 98W-706	Non.1RS
33	B 961378	Non.1RS
34	B 970123	Non.1RS
35	B 970051	Non.1RS
36	961337A13-7-3	1BL.1RS
37	92226E2-5-3	Non.1RS
38	Y98-912	Non.1RS
39	Z98-919	1BL.1RS
40	Z98*912	Non.1RS
41	AR 850-1-1	Non.1RS
42	AR 910-9-1	Non.1RS
43	T 126	Non.1RS
44	T 127	Non.1RS

2002 Crop Advanced Nursery Evaluation

We combined in equal parts, seed from IN, MO, and OH.

The checks rank well and score appropriately. Thus, these data are likely representative of the actual quality of these lines. Caldwell is above average, overall. Foster is a very good miller. Patten is average. Roane is at the bottom of the ranking, being poor. Test lines can be compared against that scale.

I am concerned that there are quite a few low letter scores. In this nursery, lines with combined scores of “F” appear not to have the requisite quality characteristics to perform as pastry wheats at the levels of quality currently enjoyed by the milling and baking industries. Lines with “E” combined scores also have quality issues, but not quite as severe.

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

STD = #2551, CALDWELL

LAB NO.			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	63.0	59.1	
2551	1	Caldwell	100.0	A	100.0	A	100.0	A	63.0	59.1	
2552	2	Foster	101.6	A	94.9	B	94.9	B	63.7	53.2	*
2553	3	Patton	90.8	C	82.8	E	82.8	E	63.2	53.3	*
2554	4	Roane	86.6	D	54.3	F	54.3	F	65.1	54.7	*
2555	5	VA 98W-593	88.0	D	68.4	F	68.4	F	65.2	50.3	Q
2556	6	KY 90C-292-4-1	85.8	D	66.1	F	66.1	F	64.0	54.9	*
2557	7	KY 90C-054-6	97.6	B	94.5	C	94.5	C	62.4	59.7	
2558	8	AR 839-28-1-2	98.2	B	86.9	D	86.9	D	63.5	53.1	*
2559	9	VA 98W-591	91.0	C	73.9	F	73.9	F	65.2	54.8	*
2560	10	T 124	83.6	E	70.5	F	70.5	F	62.6	57.9	
2561	11	MO 960903	84.6	E	73.8	F	73.8	F	63.6	51.4	Q
2562	12	MO 980525	87.8	D	83.6	E	83.6	E	63.4	53.1	*
2563	13	92212RC4-3-137-2	83.7	E	74.2	F	74.2	F	63.3	53.3	*
2564	14	OH 684	79.7	F	63.6	F	63.6	F	63.4	50.2	Q
2565	15	G 97041	92.9	C	91.9	C	91.9	C	62.3	55.0	*
2566	16	G 86244	95.7	B	83.6	E	83.6	E	63.1	57.6	
2567	17	G 96332	90.5	C	90.6	C	90.5	C	62.7	54.4	*
2568	18	IL 96-346	96.9	B	99.9	B	96.9	B	63.2	57.1	
2569	19	IL 97-2422	91.9	C	85.1	D	85.1	D	63.8	52.6	Q
2570	20	OH 685	88.1	D	61.3	F	61.3	F	64.6	50.1	Q
2571	21	OH 669	93.3	C	92.7	C	92.7	C	63.4	55.1	*
2572	22	KY 90C-42-37-1	83.7	E	92.8	C	83.7	E	63.0	53.8	*
2573	23	MO 980725	83.2	E	79.7	F	79.7	F	63.8	49.9	Q
2574	24	M94*1549-1	83.4	E	87.4	D	83.4	E	63.9	53.5	*
2575	25	M98*2152	93.2	C	98.9	B	93.2	C	62.3	52.9	*
2576	26	M98-2023	97.3	B	91.9	C	91.9	C	64.9	53.8	*
2577	27	TW 044-094	96.0	B	88.6	D	88.6	D	63.8	52.0	Q
2578	28	TW 043-008	97.5	B	95.9	B	95.9	B	63.8	54.9	*
2579	29	Daisy exp.	101.9	A	96.8	B	96.8	B	62.1	58.1	
2580	30	Husky exp.	90.7	C	94.0	C	90.7	C	64.3	54.3	*
2581	31	Jekyl exp.	92.3	C	93.6	C	92.3	C	62.5	54.1	*
2582	32	VA 98W-706	92.7	C	86.5	D	86.5	D	64.5	48.5	Q
2583	33	B 961378	87.3	D	84.1	E	84.1	E	63.8	49.1	Q
2584	34	B 970123	87.3	D	84.9	D	84.9	D	65.0	52.0	Q
2585	35	B 970051	87.9	D	74.5	F	74.5	F	62.8	49.4	Q
2586	36	961337A13-7-3	87.9	D	99.7	B	87.9	D	62.1	51.8	Q
2587	37	92226E2-5-3	94.5	C	81.3	E	81.3	E	62.8	60.6	
2588	38	Y98-912	92.0	C	84.4	E	84.4	E	63.7	54.1	*
2589	39	Z98-919	85.2	D	80.3	E	80.3	E	62.7	57.3	
2590	40	Z98*912	90.9	C	97.8	B	90.9	C	63.3	53.0	*
2591	41	AR 850-1-1	96.7	B	94.2	C	94.2	C	62.6	58.8	
2592	42	AR 910-9-1	96.2	B	91.3	C	91.3	C	62.7	52.0	Q
2593	43	T 126	86.8	D	84.4	E	84.4	E	63.7	55.6	*
2594	44	T 127	91.9	C	81.9	E	81.9	E	63.0	55.2	*

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

STD = #2551, CALDWELL

LAB NO.			IFLOUR (YIELD %	FLOUR PROT. %	MICRO AWRC %	COOKIE DIAM. CM.		TOP GR.	LACTIC ACID RET'N	
STANDARD			71.8	8.65	60.3	18.20		5	111.5	
2551	1	Caldwell	71.8		60.3	18.20		5	111.5	
2552	2	Foster	74.0		57.1	18.10		5	99.5	
2553	3	Patton	70.4	*	61.9	17.82	*	3	94.6	
2554	4	Roane	68.9	Q	65.4	Q	16.78	Q	0	117.1
2555	5	VA 98W-593	69.9	Q	62.7	*	17.35	Q	4	118.0
2556	6	KY 90C-292-4-1	68.7	Q	64.4	Q	17.23	Q	1	112.5
2557	7	KY 90C-054-6	71.2		61.0	17.98		4	113.6	
2558	8	AR 839-28-1-2	72.3		59.8	17.78		*	3	103.8
2559	9	VA 98W-591	70.0	Q	63.2	*	17.47	Q	2	114.5
2560	10	T 124	67.8	Q	64.9	Q	17.36	Q	1	144.7
2561	11	MO 960903	69.1	Q	61.6	17.43		Q	2	94.1
2562	12	MO 980525	69.6	Q	60.3	17.68		Q	5	103.1
2563	13	92212RC4-3-137-2	68.5	Q	61.9	17.40		Q	3	109.6
2564	14	OH 684	68.0	Q	60.8	16.90		Q	0	114.0
2565	15	G 97041	70.7	*	60.7	18.04			4	99.3
2566	16	G 86244	71.0	*	64.4	Q	17.95	*	4	101.8
2567	17	G 96332	70.2	Q	58.8	17.84		*	4	120.5
2568	18	IL 96-346	71.3		61.7	18.47			5	96.4
2569	19	IL 97-2422	70.7	*	61.0	17.85		*	4	118.4
2570	20	OH 685	70.0	Q	63.0	*	17.05	Q	3	115.4
2571	21	OH 669	70.7	*	61.2	18.13			4	110.4
2572	22	KY 90C-42-37-1	68.5	Q	61.2	18.20			3	90.7
2573	23	MO 980725	68.9	Q	59.8	17.58		Q	4	99.2
2574	24	M94*1549-1	68.4	Q	10.01	17.88		*	3	92.3
2575	25	M98*2152	71.2		59.6	18.35			5	91.7
2576	26	M98-2023	71.8		59.7	17.98			4	95.0
2577	27	TW 044-094	71.8		59.0	17.85		*	5	88.6
2578	28	TW 043-008	71.8		59.1	18.07			4	87.2
2579	29	Daisy exp.	72.5		59.6	18.00			1	99.3
2580	30	Husky exp.	70.1	Q	59.2	18.01			3	104.7
2581	31	Jekyl exp.	70.7	*	61.2	18.22			3	111.1
2582	32	VA 98W-706	71.5		57.8	17.91		*	1	118.9
2583	33	B 961378	70.1	Q	60.4	17.90		*	3	96.9
2584	34	B 970123	69.5	Q	10.26	17.67		Q	4	128.3
2585	35	B 970051	70.3	*	60.5	17.43		Q	2	95.4
2586	36	961337A13-7-3	70.0	Q	58.8	18.40			5	86.6
2587	37	92226E2-5-3	70.2	Q	63.8	Q	17.63	Q	2	115.4
2588	38	Y98-912	70.5	*	59.1	17.55		Q	3	126.6
2589	39	Z98-919	68.3	Q	61.5	17.47		Q	1	108.3
2590	40	Z98*912	70.4	*	58.0	18.25			4	104.3
2591	41	AR 850-1-1	71.1		58.9	17.81		*	2	121.6
2592	42	AR 910-9-1	72.0		58.5	17.98			3	104.0
2593	43	T 126	68.9	Q	58.5	17.48		Q	4	132.1
2594	44	T 127	70.4	*	59.2	17.38		Q	3	131.7