

UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL RESEARCH SERVICE

and

Cooperating State Agricultural Experiment Stations

**2002-2003**

**UNIFORM WINTER BARLEY YIELD TRIAL**

**Final Report**

Coordinator: David Marshall

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This is a joint progress report of cooperative investigations underway in the Agricultural Research Service of the U. S. Department of Agriculture and the State Agricultural Experiment Stations 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. This report is primarily a tool for use by cooperators 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 and is not intended for publication and should not be referred to in literature citations or quoted in publicity or advertising. Use of the data may be granted for certain purposes upon written request to the agency or agencies involved.

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The purpose of the Uniform Winter Barley Yield Trial (UWBYT) is to evaluate winter-habit (fall-sown) barley advanced lines for adaptation to those areas in the United States where winter barley is grown commercially. The entries in the 2002-03 UWBYT were submitted by public oat breeding programs in Nebraska, South Carolina, Texas, and Virginia. A total of 25 entries (10 hulled and 15 hulless) were included in the trial.

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USDA/ARS Uniform Winter Barley Yield Trial 2002-03  
Entries

<i>Entry</i>	<i>Designation</i>	<i>Pedigree</i>	<i>Source</i>	<i>Yrs in Trial</i>
1	Wysor	Composite cross/4/Harrison/3/Cebada Capa/Wong//awnleted Hudson (=PI501526; VA83-42-63)	NC	15
2	Perkins	Nebar selection/Dundy (=PI536646; NE851808)	NC	5
3	Nomini	Boone/Henry//VA77-12-41 (=PI566929; VA85-44-342)	NC	5
4	Callao	Boone/Henry//Sussex (=PI592800; VA90-41-14)	NC	5
5	KAB 51	Kold/88Ab536	OR	1
6	Strider	OR1860164/Steptoe	OR	1
7	SC010440	VA75-4-24/SC793556//CIho2457 (hulless)	SC	1
8	SC010441	VA75-4-24/SC793556//CIho2457 (hulless)	SC	1
9	SC010455	VA75-4-24/SC793556//CIho2457 (hulless)	SC	1
10	SC010456	VA75-4-24/SC793556//CIho2457 (hulless)	SC	1
11	SC010475	VA75-4-24/SC793556//CIho2457 (hulless)	SC	1
12	SC010476	VA75-4-24/SC793556//CIho2457 (hulless)	SC	1
13	TX00D633	TAMBAR 500/Clayton//TAMBAR402/PI176071 (hulless)	TX	1
14	TX00D634	TAMBAR 500/Clayton//TAMBAR402/PI176071 (hulless)	TX	1
15	TX00D637	TAMBAR 500/Clayton//TAMBAR402/PI176071 (hulless)	TX	1
16	TX00D639	TAMBAR 500/Clayton//TAMBAR402/PI176071 (hulless)	TX	1
17	TX00D664	TAMBAR 402*2/CI5823//PI190762 (hulless)	TX	1
18	TX00D665	TAMBAR 402*2/CI5823//PI190762 (hulless)	TX	1
19	VA99B-303	Sangregado"S"/Callao//Pamunkey	VA	1
20	VA00B-91	VA92-42-54//Quinn/VA90-41-9/3/NC8763	VA	1
21	VA00B-247	VA92-42-45/VA90-44-1//CR366-13-2/3/VA92-42-46/4/Callao	VA	1
22	VA00H-65	SC890585/VA93-44-316 (hulless)	VA	1
23	VA00H-137	Sangregado"S"/VA90-42-56/VA90-42-22/3/Pamunkey/4/SC890585 (hulless)	VA	1
24	VA01H-5	Sangregado"S"/VA90-42-56/VA90-42-22/3/Pamunkey/4/SC890585 (hulless)	VA	1
25	VA01H-122	VA90-41-10/VA90-42-9//CMB84A-1664/3/VA92-42-46/4/SC871077/5/SC871077/VA92-42-46 (hull	VA	1

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GRAIN YIELD

Entry Designation	<u>Griffin GA</u>		<u>Kinston NC</u>		<u>Dallas TX</u>		<u>Blacksburg VA</u>		<u>Warsaw VA</u>		<u>Lincoln NE</u>		<u>6-loc mean</u>	
	bu/ac	rank	bu/ac	rank	bu/ac	rank	bu/ac	rank	bu/ac	rank	bu/ac	rank	bu/ac	rank
1 Wysor	57.3	18	92.6	1	72.9	5	61.7	5	59.3	6	83.5	13	71.2	6
2 Perkins	64.1	8	41.9	25	61.1	9	38.5	22	45.7	19	94.1	5	57.6	19
3 Nomini	62.6	12	85.7	4	71.3	6	78.4	1	90.9	1	90.1	9	79.8	2
4 Callao	66.8	5	85.8	3	79.2	3	61.7	4	76.5	3	89.1	10	76.5	3
5 KAB 51	36.6	24	49.7	20	46.1	24	58.1	7	55.5	7	114.9	2	60.1	14
6 Strider	35.0	25	44.2	24	34.5	25	60.1	6	55.1	8	121.0	1	58.3	18
7 SC010440	62.9	11	70.0	11	54.2	16	47.6	17	45.5	20	79.5	18	60.0	15
8 SC010441	60.9	13	68.1	12	59.5	12	48.2	16	45.7	18	91.0	7	62.2	10
9 SC010455	56.7	20	73.6	8	51.7	17	48.3	15	48.7	14	80.1	17	59.9	16
10 SC010456	60.6	15	73.0	9	56.6	15	52.6	9	54.6	9	72.7	22	61.7	11
11 SC010475	51.2	21	78.3	7	48.2	20	49.0	14	50.6	12	92.1	6	61.6	12
12 SC010476	63.9	9	80.1	6	46.4	23	49.6	11	52.8	10	82.9	14	62.6	9
13 TX00D633	56.9	19	48.4	21	59.6	11	39.1	21	46.9	17	68.5	24	53.2	23
14 TX00D634	60.7	14	56.2	19	58.5	14	41.4	19	43.6	23	82.9	15	57.2	20
15 TX00D637	67.5	4	65.0	16	51.1	19	49.3	12	50.8	11	82.9	16	61.1	13
16 TX00D639	40.9	23	64.1	17	51.3	18	31.9	25	35.2	25	70.1	23	48.9	25
17 TX00D664	58.6	16	63.9	18	46.7	22	38.2	23	41.7	24	78.4	21	54.6	22
18 TX00D665	63.4	10	71.2	10	47.7	21	50.5	10	47.2	16	78.5	20	59.8	17
19 VA99B-303	76.1	1	67.9	14	79.8	2	71.0	3	69.7	4	89.0	11	75.6	5
20 VA00B-91	57.7	17	80.7	5	78.1	4	56.4	8	69.1	5	112.1	3	75.7	4
21 VA00B-247	72.0	2	86.6	2	99.7	1	75.4	2	80.3	2	97.0	4	85.2	1
22 VA00H-65	69.3	3	68.1	13	59.3	13	49.3	13	49.3	13	90.8	8	64.4	7
23 VA00H-137	65.4	7	66.4	15	68.5	7	44.1	18	47.8	15	86.5	12	63.1	8
24 VA01H-5	66.7	6	47.4	23	65.7	8	39.2	20	45.0	21	67.8	25	55.3	21
25 VA01H-122	50.1	22	48.2	22	61.0	10	34.2	24	44.6	22	79.5	19	52.9	24
<i>Mean</i>	59.4		67.1		60.4		51.0		54.1		87.0		63.1	
<i>LSD (5%)</i>	17.1		16.7		9.0		9.2		9.2		20.3		11.7	
<i>CV (%)</i>	16.6		20.8		7.4		6.4		6.8		9.6		13.8	

TEST WEIGHT

Entry	Designation	Griffin	Kinston	Dallas	Blacksburg	Warsaw	5-location	
		<u>GA</u> lb/bu	<u>NC</u> lb/bu	<u>TX</u> lb/bu	<u>VA</u> lb/bu	<u>VA</u> lb/bu	<u>mean</u> lb/bu	rank
1	Wysor	46	48.0	47.6	43.5	41.1	45.2	23
2	Perkins	50	50.2	49.3	46.5	43.0	47.8	18
3	Nomini	46	47.2	47.5	44.3	41.8	45.4	21
4	Callao	50	51.1	50.9	45.9	42.8	48.1	17
5	KAB 51	44	44.4	45.4	45.4	37.7	43.4	25
6	Strider	46	47.2	44.7	44.6	37.7	44.0	24
7	SC010440	57	54.2	59.8	56.2	54.4	56.3	10
8	SC010441	55	55.0	59.7	55.6	54.5	56.0	12
9	SC010455	56	54.2	59.2	55.7	54.1	55.9	13
10	SC010456	56	54.5	59.2	56.2	54.8	56.1	11
11	SC010475	56	56.6	59.1	56.3	54.5	56.5	7
12	SC010476	56	55.8	59.7	56.2	54.8	56.5	8
13	TX00D633	57	56.9	60.7	56.3	55.4	57.3	2
14	TX00D634	57	56.4	60.2	56.9	55.8	57.3	3
15	TX00D637	56	54.6	60.0	56.0	55.4	56.4	9
16	TX00D639	54	53.8	56.6	53.7	53.0	54.2	16
17	TX00D664	57	56.5	59.8	56.0	54.0	56.7	6
18	TX00D665	57	56.1	59.4	56.7	54.8	56.8	4
19	VA99B-303	46	48.0	45.4	46.4	41.0	45.4	22
20	VA00B-91	48	47.7	48.3	45.5	43.6	46.6	20
21	VA00B-247	49	48.9	49.9	46.2	43.4	47.5	19
22	VA00H-65	56	55.9	60.0	56.7	55.2	56.8	5
23	VA00H-137	54	54.5	58.3	53.3	51.4	54.3	15
24	VA01H-5	54	55.4	58.6	53.9	52.6	54.9	14
25	VA01H-122	57	57.2	60.2	56.4	56.8	57.5	1
	<i>Mean</i>	52.8	52.8	55.2	52.0	49.7	52.5	
	<i>LSD (5%)</i>		7.6		1.4	0.9	2.9	
	<i>CV (%)</i>		2.3		1.0	0.6	5.2	

HEADING DATE (JULIAN)

<i>Entry</i>	<i>Designation</i>	<i>Griffin</i>	<i>Kinston</i>	<i>Blacksburg</i>	<i>Warsaw</i>	<i>4-location</i>	
		<i>GA</i>	<i>NC</i>	<i>VA</i>	<i>VA</i>	<i>mean</i>	<i>rank</i>
1	Wysor	101	107.0	123.0	120.3	112.8	11
2	Perkins	108	119.0	130.3	127.7	121.3	25
3	Nomini	100	106.0	119.0	117.0	110.5	1
4	Callao	102	105.0	119.7	118.3	111.3	3
5	KAB 51	111	113.5	126.3	126.3	119.3	23
6	Strider	111	114.5	126.0	126.7	119.6	24
7	SC010440	102	105.0	122.7	120.3	112.5	9
8	SC010441	102	103.5	122.0	119.3	111.7	8
9	SC010455	102	103.0	121.7	119.0	111.4	5
10	SC010456	102	104.0	121.3	118.0	111.3	4
11	SC010475	102	103.0	121.0	118.3	111.1	2
12	SC010476	102	104.5	121.7	118.3	111.6	6
13	TX00D633	102	105.5	124.7	121.3	113.4	16
14	TX00D634	102	108.0	124.3	120.7	113.8	17
15	TX00D637	102	107.0	123.0	120.0	113.0	13
16	TX00D639	103	109.5	125.7	122.0	115.1	22
17	TX00D664	102	105.5	123.0	119.3	112.5	10
18	TX00D665	102	103.0	122.3	119.0	111.6	7
19	VA99B-303	102	107.0	122.7	120.7	113.1	14
20	VA00B-91	103	110.5	123.7	122.0	114.8	21
21	VA00B-247	102	107.0	123.3	120.0	113.1	15
22	VA00H-65	102	106.0	123.0	120.7	112.9	12
23	VA00H-137	102	108.5	124.3	121.0	113.9	18
24	VA01H-5	102	107.0	124.7	122.0	113.9	19
25	VA01H-122	103	107.0	125.7	121.3	114.3	20
	<i>Mean</i>	103.0	107.2	123.4	120.8	113.6	
	<i>LSD (5%)</i>		3.7	0.5	0.4	1.9	
	<i>CV (%)</i>		1.3	0.9	0.7	4.0	



HEIGHT (inches)

Entry	Designation	Griffin	Kinston	Blacksburg	Warsaw	4-location	
		GA	NC	VA	VA	mean	rank
1	Wysor	35	37.2	36.0	38.7	36.7	23
2	Perkins	36	32.1	32.0	31.3	32.9	16
3	Nomini	35	35.6	37.7	40.3	37.2	24
4	Callao	35	28.9	29.0	29.7	30.7	5
5	KAB 51	36	37.0	37.3	38.3	37.2	25
6	Strider	29	35.4	34.3	34.7	33.4	19
7	SC010440	28	31.7	32.7	32.0	31.0	7
8	SC010441	29	31.5	34.3	36.7	32.9	17
9	SC010455	27	29.7	33.3	34.0	31.0	8
10	SC010456	26	30.5	33.0	34.7	31.1	9
11	SC010475	25	28.9	34.7	35.7	31.1	10
12	SC010476	29	30.7	33.3	34.7	31.9	15
13	TX00D633	26	32.5	32.7	32.0	30.8	6
14	TX00D634	28	33.5	34.0	36.3	33.0	18
15	TX00D637	26	32.3	32.3	34.0	31.2	12
16	TX00D639	21	38.2	36.3	41.3	34.2	21
17	TX00D664	36	30.7	33.0	34.3	33.5	20
18	TX00D665	27	30.5	33.7	33.3	31.1	11
19	VA99B-303	26	31.3	30.7	30.7	29.7	2
20	VA00B-91	29	29.3	31.0	31.3	30.2	3
21	VA00B-247	28	28.0	31.7	33.0	30.2	4
22	VA00H-65	28	32.5	32.7	31.7	31.2	13
23	VA00H-137	27	30.1	31.0	30.3	29.6	1
24	VA01H-5	28	32.9	32.3	31.7	31.2	14
25	VA01H-122	31	35.2	35.7	36.3	34.6	22
	<i>Mean</i>	29.2	32.2	33.4	34.3	32.3	
	<i>LSD (5%)</i>		3.2	3.0	3.0	3.5	
	<i>CV (%)</i>		3.9	1.4	1.4	5.1	

LODGING

<i>Entry</i>	<i>Designation</i>	<i>Griffin</i>	<i>Blacksburg</i>	<i>Warsaw</i>
		<u>GA</u> 0-9	<u>VA</u> 0.2-10*	<u>VA</u> 0.2-10*
1	Wysor	0	5.9	5.4
2	Perkins	4	3.9	5.8
3	Nomini	0	3.9	4.6
4	Callao	7	9.0	6.0
5	KAB 51	0	1.7	5.2
6	Strider	0	0.7	5.0
7	SC010440	3	3.3	4.3
8	SC010441	5	3.8	6.0
9	SC010455	0	1.6	5.4
10	SC010456	2	1.6	5.0
11	SC010475	2	3.1	4.9
12	SC010476	0	2.5	5.6
13	TX00D633	1	2.5	4.8
14	TX00D634	9	2.1	5.8
15	TX00D637	9	2.3	5.2
16	TX00D639	9	4.9	6.2
17	TX00D664	4	3.5	5.3
18	TX00D665	1	3.3	3.1
19	VA99B-303	7	5.8	5.6
20	VA00B-91	0	3.0	2.2
21	VA00B-247	1	4.6	2.8
22	VA00H-65	0	1.3	2.5
23	VA00H-137	9	2.1	4.9
24	VA01H-5	9	2.7	5.2
25	VA01H-122	9	2.4	2.7
	<i>Mean</i>	3.6	3.3	4.8
	<i>LSD (5%)</i>		26.4	18.4
	<i>CV (%)</i>		1.2	1.2

\*1 Belgian Lodging = 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).

STRIPE RUST

NET BLOTCH

Entry	Designation	Pullman WA		Mt Vernon WA		Mt Vernon WA		Blacksburg	Warsaw	2-loc mean
		<u>Zadok's 60</u>		<u>Zadok's 30</u>		<u>Zadok's 50</u>		<u>VA</u>	<u>VA</u>	
		%	IT	%	IT	%	IT	0-9	0-9	
1	Wysor	0	0	70	8	90	8	4.7	3.0	3.9
2	Perkins	0	0	0	0	90	8	3.7	3.7	3.7
3	Nomini	0	0	70	8	90	8	2.0	2.0	2.0
4	Callao	1	8	80	8	90	8	3.0	4.3	3.7
5	KAB 51	0	0	0	0	0	0	4.0	5.3	4.7
6	Strider	0	0	0	0	0	0	3.3	4.3	3.8
7	SC010440	0	0	95	8	90	8	5.3	5.7	5.5
8	SC010441	30	8	95	8	95	8	5.7	5.7	5.7
9	SC010455	5	8	90	8	90	8	4.3	3.0	3.7
10	SC010456	20	8	90	8	90	8	4.0	3.0	3.5
11	SC010475	10	5	90	8	90	8	5.3	4.3	4.8
12	SC010476	10	8	95	8	99	8	5.0	5.0	5.0
13	TX00D633	10	8	90	8	95	8	5.0	4.7	4.9
14	TX00D634	10	8	90	8	95	8	4.7	4.3	4.5
15	TX00D637	10	8	95	8	95	8	3.3	3.3	3.3
16	TX00D639	nd*	nd	60	8	90	8	3.7	3.0	3.4
17	TX00D664	nd	nd	95	8	95	8	5.7	6.0	5.9
18	TX00D665	nd	nd	95	8	99	8	5.0	4.3	4.7
19	VA99B-303	2	8	90	8	90	8	4.7	5.7	5.2
20	VA00B-91	0	0	90	8	95	8	2.7	3.0	2.9
21	VA00B-247	0	0	90	8	99	8	4.0	4.0	4.0
22	VA00H-65	5	8	95	8	99	8	4.3	4.7	4.5
23	VA00H-137	5	8	0	0	0	0	3.3	4.3	3.8
24	VA01H-5	nd	nd	0	0	0	0	3.0	3.7	3.4
25	VA01H-122	nd	nd	90	8	90	8	3.7	4.0	3.9
	<i>Mean</i>	--	-	70.2	-	78.2	-	4.1	4.2	4.2
	<i>LSD (5%)</i>							0.9	0.8	1.2
	<i>CV (%)</i>							16.4	13.4	13.9

\*nd = no data.

GRAIN QUALITY

<i>Entry</i>	<i>Designation</i>	<i>Protein %</i>	<i>β-glucan %</i>	<i>Lipid %</i>
1	Wysor	13.00	4.48	1.58
2	Perkins	10.88	5.73	1.78
3	Nomini	12.74	4.05	1.47
4	Callao	10.34	3.75	1.86
5	KAB 51	15.46	3.87	1.50
6	Strider	15.52	3.60	1.58
7	SC010440	12.63	4.64	1.54
8	SC010441	10.52	4.59	1.50
9	SC010455	10.49	3.95	1.16
10	SC010456	10.88	3.91	1.75
11	SC010475	12.13	4.21	1.72
12	SC010476	13.08	4.03	1.93
13	TX00D633	13.14	5.03	1.62
14	TX00D634	12.92	4.23	1.45
15	TX00D637	12.51	3.57	1.63
16	TX00D639	12.65	3.88	1.24
17	TX00D664	13.20	4.30	1.51
18	TX00D665	13.43	4.09	1.76
19	VA99B-303	12.45	5.05	1.62
20	VA00B-91	10.96	4.17	1.29
21	VA00B-247	11.44	4.15	1.47
22	VA00H-65	11.45	4.55	1.40
23	VA00H-137	10.92	3.74	1.17
24	VA01H-5	11.49	3.78	1.44
25	VA01H-122	15.09	4.13	1.39
<i>Mean</i>		12.37	4.22	1.53

Quality data were obtained from a composite grain sample from Griffin, Clemson, Blacksburg, and Warsaw.

FLOUR AND GRAIN CHARACTERISTICS

Entry	Designation	Falling Number (seconds)					Hardness Score					Seed Weight (mg)					Seed Diameter (mm)				
		Griffin	Clnsn	Blacksb	Wrsw	Mean	Griffin	Clnsn	Blacksb	Wrsw	Mean	Griffin	Clnsn	Blacksb	Wrsw	Mean	Griffin	Clnsn	Blacksb	Wrsw	Mean
1	Wysor	526	571	564	518	544.7	50	67	77	74	67	25.7	27.0	24.6	23.1	25.1	2.04	2.03	1.91	1.85	1.96
2	Perkins	541	615	642	720	629.5	82	78	83	89	83	23.7	24.6	22.8	19.3	22.6	1.90	1.92	1.86	1.73	1.85
3	Nomini	598	652	587	555	598.0	68	73	83	74	74	29.5	28.8	25.1	25.5	27.2	2.19	2.15	1.98	1.98	2.07
4	Callao	376	518	403	504	450.2	54	70	67	54	61	29.9	26.9	23.6	25.6	26.5	2.25	2.18	1.97	2.10	2.12
7	SC010440	221	426	474	432	388.2	57	77	73	70	69	30.0	30.2	28.0	26.8	28.8	2.01	2.00	1.92	1.85	1.94
8	SC010441	250	418	361	385	353.5	57	66	73	66	65	29.0	34.8	27.2	27.7	29.6	1.98	2.16	1.88	1.86	1.97
9	SC010455	198	292	324	340	288.5	54	72	71	59	64	28.7	29.2	25.8	26.5	27.6	2.03	2.07	1.82	1.85	1.94
10	SC010456	196	412	386	318	328.0	46	63	64	58	58	30.4	32.0	27.8	24.9	28.8	2.08	2.16	1.94	1.80	1.99
11	SC010475	258	370	438	542	402.0	66	72	77	75	72	28.3	29.3	27.3	25.0	27.5	1.97	2.05	1.94	1.80	1.94
12	SC010476	269	385	438	389	370.2	60	74	75	74	71	29.5	28.5	26.9	25.8	27.7	2.01	2.02	1.90	1.84	1.94
13	TX00D633	308	384	437	421	387.5	57	76	75	75	71	31.0	29.1	28.3	27.2	28.9	2.03	1.97	1.91	1.86	1.94
14	TX00D634	214	352	382	493	360.2	60	71	76	71	69	31.7	32.1	27.3	25.6	29.2	2.15	2.08	1.90	1.80	1.98
15	TX00D637	189	358	385	319	312.7	57	64	68	65	63	29.3	30.4	27.4	26.2	28.3	2.06	2.10	1.90	1.85	1.98
16	TX00D639	209	374	378	391	338.0	66	67	78	80	73	25.4	27.4	24.7	23.7	25.3	1.77	1.88	1.80	1.71	1.79
17	TX00D664	233	390	380	373	344.0	63	75	79	78	74	29.2	29.8	25.2	23.3	26.9	2.03	2.07	1.79	1.72	1.90
18	TX00D665	235	362	373	438	352.0	61	74	75	71	70	30.2	29.7	27.2	24.3	27.9	2.08	2.00	1.87	1.73	1.92
19	VA99B-303	327	564	546	487	481.0	57	64	75	67	66	28.0	26.5	24.8	24.3	25.9	2.07	2.00	1.93	1.86	1.96
20	VA00B-91	312	530	494	522	464.5	68	88	89	90	84	25.8	27.9	22.8	23.2	24.9	2.02	2.14	1.80	1.93	1.97
21	VA00B-247	490	545	509	478	505.5	68	70	76	64	69	28.9	26.9	26.1	24.5	26.6	2.25	2.21	2.10	1.97	2.13
22	VA00H-65	279	354	411	583	406.7	57	74	75	74	70	31.5	29.4	27.8	26.3	28.8	2.15	2.03	1.92	1.87	1.99
23	VA00H-137	121	341	257	260	244.7	46	66	67	60	60	26.6	29.2	25.2	25.8	26.7	1.88	1.95	1.74	1.81	1.84
24	VA01H-5	137	312	248	278	243.7	43	63	59	56	55	28.6	31.7	28.5	27.3	29.0	1.95	2.09	1.87	1.89	1.95
25	VA01H-122	240	442	391	400	368.2	67	73	68	69	69	24.1	24.7	23.8	23.1	23.9	1.85	1.91	1.78	1.74	1.82
	<i>Mean</i>	293	433.3	426.4	441.1	398	59	71	74	70	69	28.5	28.9	26.0	25.0	27.1	2.03	2.05	1.88	1.84	1.95
	<i>LSD (5%)</i>					70.1					6.0				1.6						0.08
	<i>CV%</i>					12.5					6.2				4.3						2.86

Locations are Griffin, Clemson, Blacksburg, and Warsaw.

Entries 5 (KAB 51) and 6 (Strider) were omitted from these analyses.