Small Grains in 2006

Virginia Cooperative Extension

VirginiaTech
Invent the Future

VIRGINIA STATE UNIVERSITY

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The following are the small grain variety recommendations for Virginia in 2006. The recommendations are based on the agronomic performance in barley and wheat variety tests conducted by the Research and Extension Divisions of Virginia Tech in the various agricultural regions of the state.

Recommended Small Grain Varieties

Recommended Wheat Varieties

Arranged in Order of Maturity

All varieties have been extensively tested and proven to be adapted statewide.

Agronomic Characteristics

Cultivar	Grain Yield	Test Weight	Milling Quality	SRW Baking Quality	Relative Heading
SS 520[a]	4	1	4	3	Early
FEATHERSTONE 176	4	2	3	4	Early
SISSON	4	3	3	2	Early
RENWOOD 3260	3	4	4	2	Early
PIONEER BRAND 26R24	4	2	3	3	Early
3706	3	3	4	3	Early
USG 3209[a]	3	2	1	1	Early
PIONEER BRAND 26R31	4	2	4	2	Avg.
VIGORO TRIBUTE	4	4	2	1	Avg.
MCCORMICK	2	4	2	1	Avg.
SS 8404[b]	4	4	3	4	Avg.
VIGORO V9510[b]	3	3	N/A	N/A	Avg.
SS 550	3	2	2	2	Avg.
CHESAPEAKE	4	4	2	2	Avg.
PIONEER BRAND 26R15	4	1	4	3	Avg.
DOMINION	3	3	4	2	Late
SS 560	4	2	2	1	Late
SS MPV 57	4	1	4	3	Late

[a] 4 = Significantly greater than average; 3 = Greater than average; 2 = Below average; 1 = Significantly below average
[b] These lines are not daylength sensitive and should not be planted early in order to avoid potential freeze damage.
[c] Based on performance over only two seasons and may be less reliable than other recommendations

Disease Resistance

Cultivar	FHB[a] resistance	Powdery Mildew	Leaf Rust	Stripe Rust	Glume Blotch
SS 520[b]	1	3	3	1	4
FEATHERSTONE 176	1	4	2	3	3
SISSON	1	3	1	1	4
RENWOOD 3260	4	3	3	1	2
PIONEER BRAND 26R24	1	3	3	1	4
3706	1	3	4	4	1
USG 3209[b]	3	3	1	3	2
PIONEER BRAND 26R31	2	4	4	1	4
VIGORO TRIBUTE	4	4	4	1	4
MCCORMICK	3	4	1	2	3
SS 8404[c]	4	2	3	1	N/A
VIGORO V9510[c]	3	2	2	1	N/A
SS 550	3	3	1	1	3
CHESAPEAKE	3	4	2	1	3
PIONEER BRAND 26R15	4	3	4	4	2
DOMINION	3	4	3	4	2
SS 560	3	2	2	1	3
SS MPV 57	3	2	2	1	4

4 = Significantly greater than average; 3 = Greater than average; 2 = Below average; 1 = Significantly below average

[a] FHB = Fusarium head blight

[b] These lines are not day-length sensitive and should not be planted early in order to avoid potential freeze damage.

[c] Based on performance over only two seasons and may be less reliable than other recommendations

Recommended Barley Varieties

	Hulled Barley			Hulless Barley
Cultivar	Callao	Price	Thoroughbred	Doyce
Adapted Regions				
Coastal Plain	X	X	X	X
Piedmont, South of James River	X	X	X	X
Piedmont, North of James River	X	X	X	X
West of Blue Ridge	X	X	X	X
Agronomic Characteristics[a]				
Yield	3	4	4	3
Test Weight	4	3	4	4
Lodging	4	2	1	2
Relative Height	1	2	3	3
Relative Heading	Early	Avg	Late	Avg
Grain Protein, %	8.5	8.0	8.8	9.0
Starch, %	56.4	53.4	54.7	61.3

4 = Significantly greater than average; 3 = Greater than average; 2 = Below average; 1 = Significantly below average

Barley and Wheat Entries

Commercial Barley Entries

Virginia Tech and Virginia Crop Improvement Association, 9142 Atlee Station Road, Mechanicsville, VA 23116 – Callao, Doyce, Price, and Thoroughbred.

Commerical and Experimental Wheat Entries

AgriPro COKER, PO Box 411, 520 East 1050 South, Brookston, IN 47923 – COKER 9184, COKER 9436, COKER 9511, COKER 9553, B99-0081, M01-4377, and Panola.

Featherstone Seed Company, 13941 Genito Road, Amelia, VA 23002 - Featherstone 520 and Featherstone 176.

University of Georgia, 1109 Experiment Street, Griffin, GA 30223 – GA-951079-2E31, GA-951216-2E26, GA-96229-3A41, GA-951395-3E25, GA-951395-3A31, and GA-96229-3E39.

University of Maryland, CMREC/Beltsville Facility, 12000 Beaver Dam Road, Laurel, MD 20708 – Choptank and Chesapeake.

Michigan State University, 286 PSSB, East Lansing, MI 48824-1325 – MSU Line E1007.

North Carolina State University, 840 Method Rd, Unit 3, Box 7629, Raleigh, NC 27695-7629 – NC00-15332.

Pioneer Hibred International, Inc., Eastern Division, Tipton, IN 47072 - Pioneer Brand 26R12, Pioneer Brand 26R15, Pioneer Brand 26R24, Pioneer Brand 26R31, and Pioneer Brand XW04C.

Renwood Farms, Inc., 17303 Sandy Point Road, Charles City, VA 23030 – Renwood 3260.

Royster-Clark, Inc., 70 N. Market St., Mt. Sterling, OH 43143 – Dominion, Tribute, V9412, and V9510.

Southern States Cooperative, PO Box 26234, Richmond, VA 23260 – SS 520, SS 550, SS 560, SS 8302, SS 8309, SS 8404, and SS MPV 57.

Uni-South Genetics, 2640-C Nolensville Road, Nashville, TN 37211 – USG 3137, USG 3209, USG 3342, USG 3592, USG 3665, USG 3706, and USG 3910.

Virginia Tech and Virginia Crop Improvement Association, 9142 Atlee Station Road, Mechanicsville, VA 23111 – Massey, McCormick, Sisson, and all lines prefixed by VA.

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Introduction

The following tables present results from barley and wheat varietal tests conducted in Virginia in 2004, 2005, and 2006. Small-grain cultivar performance tests are conducted each year in Virginia by the Virginia Tech Department of Crop and Soil Environmental Sciences and the Virginia Agricultural Experiment Station. The tests provide information to assist Virginia Cooperative Extension agents in formulating cultivar recommendations for small-grain producers and to companies developing cultivars and/or marketing seed within the state. Yield data are given for individual locations and across locations and years; yield and other performance characteristics are averaged over the number of locations indicated. Performance of a given variety often varies widely over locations and years which makes multiple location-year averages a more reliable indication of expected performance than data from a single year or location. Details about management practices for barley and wheat are listed for each experimental location.

The Season

The 2005-2006 small-grain crop began with acceptable soil moisture and cool temperatures. Late fall and early winter were very cool. Average temperatures in January were more than seven degrees above the long-term average for that time of year and resulted in a boost in small-grain growth (Figure 1). February was more like winter for the Commonwealth of Virginia than the previous month. Most areas experienced dry conditions in spite of the occasional snow and ice. In fact, precipitation was only 54 percent of the average annual accumulation for February (Figure 2). The small-grain crop was rated 80 percent fair to good. In early spring, dry conditions continued across the commonwealth. Most areas received only light to moderate rain and temperatures were one to three degrees above normal. Continued dry weather resulted in tiller loss in many areas. The average temperature during the month of May was more than four degrees below the long-term average, resulting in very favorable grain filling conditions.

Virginia producers planted an estimated 56,000 acres of barley in 2005-06, 4000 acres less than the previous year. Grain harvest occurred on 80 percent of planted acres. At a projected 86 bushels per acre, yields are one bushel less than the 2005 crop and nine bushels per acre higher than the 74 bushel per acre average of 2003-04. Planted acres for wheat were estimated at 210,000 acres in 2005-06 which was up 30,000 acres from the previous year. Harvested area in 2005-06 was estimated at 170,000 acres, similar to the previous two seasons. Statewide average yield was estimated at 66 bushels per acre, as compared to a statewide average of 63 bushels per acre in 2004-05 and was eight bushels per acre higher than the ten-year average (58 bu/A). If the estimate proves correct, this will be the second highest average yield ever recorded in the commonwealth. Overall wheat production is expected to be over 11 million bushels.

Figure 1.

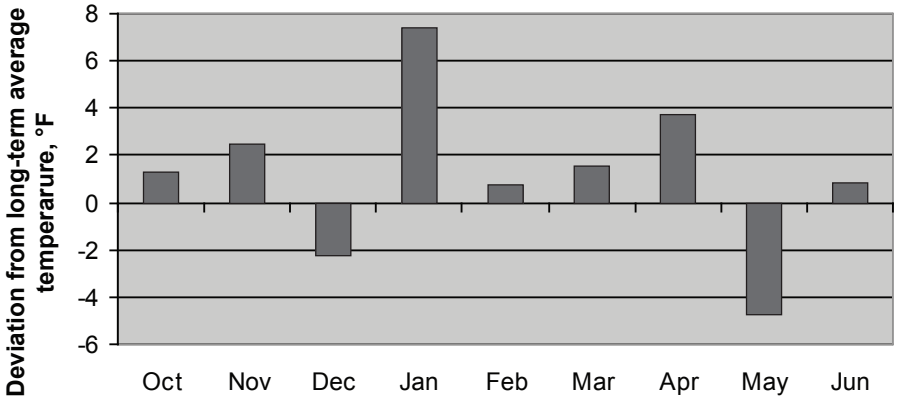
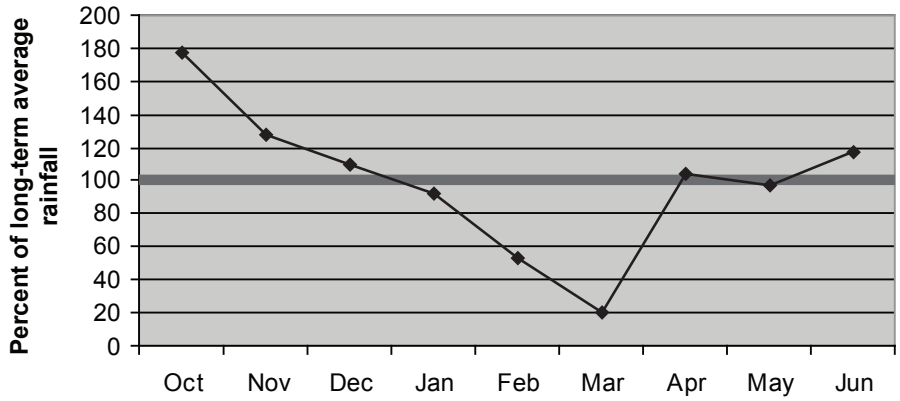


Figure 2.



Section 1: Barley Varieties

Hulless Barley

Hulless barley tests were planted in seven-inch rows at Blackstone, Orange, Holland, and Painter. They were planted in six-inch rows at Warsaw and Blacksburg. They were planted in seven and one-half-inch rows at the Warsaw no-till location. The no-till tests at Holland and Warsaw were planted at 28 seeds per row foot. All other locations were planted at 32 seeds per row foot.

Yields of current hulless barley lines are generally 10 percent to 20 percent lower than those of hulled barley lines. This is expected since the hull makes up 12 percent to 15 percent of the weight of traditional barley and the breeding program for hulless barley is relatively new. To date, significant progress has been made in the development of winter hulless barley lines. The program has developed more than 3,000 winter hulless barley populations. Over 100 advanced winter hulless barley lines are being evaluated in four states (Maryland, Pennsylvania, Kentucky, and Delaware). Doyce hulless barley being produced in 2006 will be evaluated in pilot studies for its potential use in ethanol production and as an improved feed component in poultry rations. Continued efforts will be focused on development of hulless barley varieties for specific end-use markets benefiting producers in the Mid-Atlantic Region.

The two-year average yield for Doyce hulless barley in Virginia was 83 bushels per acre with test weight of 56 pounds per bushel. The experimental line VA01H-68 also averaged 83 bushels per acre, but test weight was 58.5 pounds per bushel over two years of testing.

Hulled Barley

Hulled barley tests were planted in seven-inch rows at Blackstone, Orange, Holland, and Painter. They were planted in six-inch rows at Warsaw and Blacksburg. They were planted in seven and one-half-inch rows at the Warsaw no-till location. The no-till tests at Holland and Warsaw were planted at 28 seeds per row foot. All other locations were planted at 24 seeds per row foot.

Virginia grown barley typically yields in excess of 100 bushels per acre, and fits well in many crop rotation systems. However, profitable barley production on over 50,000 acres in Virginia will require a revival of international market opportunities and/or the development of barley varieties that livestock feeders desire.

The three-year average yields of Thoroughbred were 131 bushels per acre with average test weight of 48.0 pounds per bushel. The 2002 release Price averaged 116 bushels per acre with a test weight of 48.5 pounds per bushel over three years of testing. The three-year mean yield for Callao was 118 bushels per acre and test weight was 47.9 pounds per bushel. All three cultivars had three-year mean yields significantly higher than the test average. Hopefully, these new varieties with improved genetic traits for test weight and other quality factors along with improved agronomic traits will enhance the marketability of Virginia grown barley.

Summary of barley management practices for the 2006 harvest season

(All rates are given on a per acre basis.)

Blacksburg - Planted October 14, 2005. Preplant fertilizer was 25-80-80 in October 2005. Site was fertilized with 78-0-0 plus 0.6 oz Harmony Extra® on March 27, 2006. Harvest occurred on June 14-15, 2006.

Blackstone - Planted October 27, 2005. Preplant fertilizer was 300 lb 10-20-20 on October 19, 2005. Site was fertilized with 60 lb N using 30%UAN on January 27, 2006 and sprayed with 0.5 oz Harmony Extra® on February 16, 2006. Site was fertilized with 60 lb N using 30%UAN March 13, 2006. Site was sprayed with 2.56 oz Warrior® April 11, 2006. Harvest occurred on June 13, 2006.

Painter - Planted November 1-2, 2005. Preplant fertilizer was 500 lb 5-10-10 on October 31, 2005. Site was fertilized with 60 lb N and sprayed with 0.5 oz Harmony Extra® March 11, 2006. Site was fertilized with 50 lb N April 6, 2006. Harvest occurred on June 19-20, 2006.

Warsaw - Planted October 19, 2005. Preplant fertilizer was 30-60-60 applied October 18, 2005. Site was sprayed with 0.4 oz Finesse® and fertilized at 27 lb N using 24-0-0-3 on December 13, 2005. Fertilization at 30 lb N on February 27, 2006 and at 45 lb N on April 4, 2006 occurred using 24-0-0-3. Site was sprayed with 2.56 oz Warrior® April 28, 2006. Harvest occurred June 16, 2006.

Holland - Planted no-till November 8, 2005. Preplant fertilization was 350 lb 9-16-31 plus one ton lime on November 4, 2005. Site was fertilized with 60 lb N and sprayed with 0.75 oz Harmony Extra® on January 28, 2006. Site was sprayed with 4.75 oz Osprey® on February 23, 2006. Site was fertilized with 40 lb N March 9, 2006. Harvest occurred on June 8, 2006.

Orange - Planted October 18, 2005. Preplant fertilization was 25-64-36-36S on October 3, 2005, followed by 1 qt Gramoxone Max® on October 20, 2005. Site was fertilized with 60 lb N and and sprayed with Harmony Extra® at 0.4 oz March 8, 2006. Harvest occurred on June 7, 2006.

Table 1. Summary of performance of hulless entries in the Virginia Tech Barley Test over locations, 2006 harvest.

Hulless Lines[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Net Blotch (0-9)[d]		Leaf Rust (0-9)[d]		Leaf Spot (0-9)[d]		Early Height (In)	
	(7)[e]		(7)		(4)		(4)		(6)		(1)		(3)		(2)		(2)	
VA04H-53	90	+[f]	58.9	+	20	+	35	+	3.0	+	2		4	+	1	-	7.2	
Doyce	88	+	56.9	-	16	-	32	-	2.8		3	+	1	-	4	+	8.6	+
VA03H-61	88	+	60.6	+	20	+	33		1.1	-	2		2	-	2	-	4.8	-
VA01H-125	86		58.4		14	-	27	-	2.3		3	+	4	+	5	+	7.5	
VA01H-68	85		58.6		14	-	33		2.2		3	+	2	-	3		9.0	+
VA03H-100	85		59.0	+	18	+	38	+	2.1		2		5	+	2	-	6.9	
VA03H-64	83		58.4		18	+	36	+	2.3		2		5	+	2	-	6.8	
VA01H-1	82		57.9	-	16	-	32	-	1.1	-	3	+	3		4	+	8.5	
VA04H-59	82		57.9	-	17		38	+	2.6		2		3		1	-	7.6	
VA04H-111	81	-	58.7		17		34	+	2.2		1	-	1	-	2	-	9.4	+
VA04H-25	79	-	60.1	+	16	-	34	+	1.2	-	1	-	2	-	2	-	8.7	+
H-585	79	-	57.5	-	13	-	33		2.0		3	+	4	+	4	+	8.4	
VA03H-58	79	-	59.6	+	19	+	30	-	4.6	+	2		3		3		5.5	-
Average	84		58.6		17		33		2.3		2		3		3		7.6	
C.V.	8		1.0		4		4		---		---		---		---		13.5	
LSD (0.05)	3		0.3		1		1		0.7		1		1		1		1.0	

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] The number of locations on which data are based.

[f] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 2. Two-year average summary of performance of hulless entries in the Virginia Tech Barley Tests, 2005 and 2006 harvests.

Hulless Lines[a,b]	Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Mar31+)	Height (In)	Lodging (0.2-10)[c]	Net Blotch (0-9)[d]	Leaf Rust (0-9)[d]	Leaf Spot (0-9)[d]	Leaf Septoria (0-9)[d]	Early Height (In)	Winter Survival (%)
	(10)[e]	(12)	(7)	(7)	(10)	(2)	(5)	(3)	(1)	(2)	(1)
Doyce	83 +[f]	56.1 -	20 +	33 +	2.6 +	4	1 -	4	0	8.6	16 -
VA01H-68	83 +	58.5 +	18	34 +	1.7	4	2	3 -	0	9.0	64
VA01H-125	81	57.7 +	18	28 -	1.7	5 +	3 +	5 +	0	7.5	91 +
VA01H-1	79	57.5	20 +	33 +	0.8 -	4	2	4	0	8.5	86 +
H-585	76 -	56.9 -	17 -	34 +	1.5	4	4 +	4	0	8.4	89 +
Average	80	57.4	18	32	1.6	4	2	4	0.1	8.4	69
C.V.	11	1.3	4	5	---	---	---	---	---	11.4	16
LSD (0.05)	3	0.3	0.4	1	0.4	1	1	1	0.5	1	17

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] The number of locations on which data are based.
[f] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 3. Three-year average summary of performance of hulless entries in the Virginia Tech Barley Tests, 2004, 2005, and 2006 harvests.

Hulless Lines[a,b]	Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Mar31+)	Height (In)	Lodging (0.2-10)[c]	Net Blotch (0-9)[d]	Leaf Rust (0-9)[d]	Leaf Spot (0-9)[d]	Leaf Septoria (0-9)[d]	Early Height (In)	Winter Survival (%)
	(13)[e]	(15)	(10)	(10)	(13)	(3)	(6)	(3)	(1)	(2)	(1)
Doyce	83 +[f]	55.9 -	21 +	33 +	2.1 +	5	1 -	4	0	8.6	16 -
VA01H-68	81	58.1 +	19	34 +	1.4	4 -	2 -	3 -	0	9.0	64
VA01H-125	76 -	57.5 +	19	27 -	1.4	5	4 +	5 +	0	7.5	91 +
H-585	74 -	56.5 -	19	34 +	1.2 -	5	4 +	4	0	8.4	89 +
Average	79	57.0	19	32	1.5	5	3	4	0	8.4	65
C.V.	10	1.4	4	5	---	---	---	---	---	12.3	18
LSD (0.05)	3	0.3	0.3	1	0.3	1	1	1	0	1.1	19

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] The number of locations on which data are based.

[f] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 4. Summary of performance of hulless entries in the Virginia Tech Barley Test, Eastern Virginia AREC, Warsaw, Va., 2006 harvest.

Hulless Lines[a,b]	Yield (Bu/a)	Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Leaf Rust (0-9)[d]		Early Height (In)	
VA04H-111	89	57.8		14	-	33		1.4		1	-	9.4	+
VA03H-61	89	60.3	+[e]	20	+	31		2.3		1	-	4.1	-
VA03H-100	88	58.3		17	+	38	+	2.1		5	+	7.3	
VA01H-68	86	56.5	-	12	-	33		1.4		2		9.6	+
VA04H-53	86	57.9		19	+	34	+	2.9		5	+	6.3	
VA04H-25	84	59.3	+	14	-	33		1.3		2		9.6	+
Doyce	84	56.0	-	15		30	-	2.1		1	-	9.1	
VA01H-125	83	57.3		13	-	27	-	0.8		5	+	7.6	
VA03H-58	80	59.2	+	19	+	28	-	6.0	+	3		5.0	-
VA03H-64	79	57.0		16	+	35	+	3.7		7	+	6.4	
VA01H-1	78	56.7	-	14	-	30	-	0.3		4		9.0	
VA04H-59	74	56.9	-	16	+	36	+	2.3		3		7.6	
H-585	72	56.4	-	12	-	32		1.1		3		8.5	
Average	82	57.7		15		32		2.1		3		7.7	
C.V.	9	1.0		5		4		---		---		---	
LSD (0.05)	11	0.8		1		2		1.9		2		1.6	

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 5. Summary of performance of hulless entries in the Virginia Tech Barley Test, Eastern Shore AREC, Painter, Va., 2006 harvest.

Hulless Lines [a,b]	Yield (Bu/a)		Weight (Lb/bu)		Test Lodging (0.2-10)[c]	Leaf Rust (0-9)[d]		Leaf Spot	
VA03H-61	94	+[e]	58.9		1.9	2	-	1	
VA01H-1	91		58.3		1.3	3		3	+
Doyce	90		57.0	-	3.1	0	-	2	+
VA01H-68	88		55.9	-	1.5	2	-	1	
VA04H-53	88		58.8		4.8	4	+	0	-
VA04H-25	88		60.8	+	2.1	3		0	-
VA04H-111	87		59.1		1.8	2	-	1	
VA01H-125	86		58.8		4.7	5	+	3	+
VA03H-58	86		59.4		4.8	4	+	2	+
VA04H-59	82		58.3		3.5	4	+	0	-
VA03H-100	81		59.4		2.3	6	+	0	-
VA03H-64	81		58.5		1.5	6	+	0	-
H-585	77	-	57.6		2.1	5	+	2	+
Average	86		58.5		2.7	3		1	
C.V.	6		1.4		---	---		---	
LSD (0.05)	7		1.2		2.2	1		1	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 6. Summary of performance of hulless entries in the Virginia Tech Barley Test, Northern Piedmont AREC, Orange, Va., 2006 harvest.

Hulless Lines[a,b]	Yield (Bu/a)		Weight (Lb/bu)		Test Headed (Mar31+)		Date Height (In)		Lodging (0.2-10)[c]	
Doyce	100	+[d]	55.8	-	17	-	39		0.5	
VA04H-53	93		58.8	+	20	+	42	+	1.8	
VA04H-59	92		56.5		18		42	+	0.8	
VA03H-64	92		54.6	-	18		42	+	0.2	
VA01H-125	90		56.9		16	-	31	-	0.2	
VA03H-100	88		58.3	+	20	+	44	+	0.3	
VA01H-68	86		59.0	+	16	-	40		0.2	
VA03H-61	86		60.5	+	19	+	38	-	0.2	
VA01H-1	85		56.2		17	-	39		0.2	
H-585	82		55.2	-	15	-	40		0.2	
VA03H-58	74	-	59.7	+	18		36	-	2.1	
VA04H-111	72	-	55.2	-	18		41		4.2	+
VA04H-25	71	-	55.9	-	18		41		0.2	
Average	85		57.1		18		40		0.8	
C.V.	9		1.4		5		3		---	
LSD (0.05)	11		1.2		1		2		1.9	

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.

[d] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 7. Summary of perfor.mance of hulless entries in the Virginia Tech Barley Test, Kentland Farm, Blacksburg, Va., 2006 harvest.

Hulless Lines [a,b]	Yield (Bu/a)	Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Net Blotch (0-9)[d]		Leaf Rust (0-9)	
VA01H-68	99	60.3	+[e]	16	-	31		1.3		3	+	1	-
VA01H-125	98	59.2		14	-	25	-	0.3		3	+	3	+
VA04H-53	98	58.8		22	+	32		0.6		2		3	+
VA04H-59	97	58.9		19	+	37	+	1.0		2		3	+
VA03H-100	95	59.0		19	+	36	+	2.1	+	2		3	+
VA03H-64	95	59.2		20	+	35	+	0.7		2		3	+
VA03H-61	94	61.4	+	22	+	30		0.2		2		2	
Doyce	92	58.6	-	17	-	28	-	0.4		3	+	1	-
VA01H-1	90	58.7	-	17	-	30		0.2		3	+	2	
VA04H-25	88	61.3	+	19	+	33		0.2		1	-	1	-
H-585	87	58.4	-	13	-	30		0.4		3	+	5	+
VA04H-111	85	59.8		19	+	30		1.1		1	-	1	-
VA03H-58	81	60.2		22	+	28	-	1.6		2		2	
Average	92	59.5		18		31		0.8		2		2	
C.V.	9	0.9		4		6		---		---		---	
LSD (0.05)	12	0.8		1		3		1.0		1		1	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 8. Summary of performance of hulless entries in the Virginia Tech Barley Test, Southern Piedmont AREC, Blackstone, Va., 2006 harvest.

Hulless Lines[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)	
VA01H-125	85	+[c]	59.2	-
VA03H-64	82		60.4	+
VA03H-100	82		59.7	
H-585	82		59.3	-
VA04H-53	81		60.1	
VA04H-59	80		59.0	-
Doyce	79		58.5	-
VA01H-68	77		60.3	
VA03H-61	76		60.9	+
VA03H-58	76		60.4	+
VA04H-111	76		60.2	
VA04H-25	72		62.0	+
VA01H-1	72		58.9	-
Average	78		59.9	
C.V.	7		0.6	
LSD (0.05)	7		0.5	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 9. Summary of performance of hulless entries in the Virginia Tech Barley Test under no-till conditions, Eastern Virginia AREC, Warsaw, Va., 2006 harvest.

Hulless Lines [a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Leaf Spot (0-9)[d]		Early Height (In)	
VA04H-53	103	+[e]	61.6	+	19	+	34	+	3.6	+	3	-	8.1	
VA03H-61	98	+	62.6	+	20	+	31		0.6		4		5.4	-
Doyce	89		58.8	-	15	-	31		4.5	+	6	+	8.1	
VA03H-100	89		61.1		18	+	35	+	0.7		4		6.6	
VA04H-111	86		60.9		16		33	+	0.7		4		9.5	+
VA01H-1	82		60.0	-	15	-	30		0.3		6	+	8.0	
VA01H-125	82		60.4		14	-	24	-	0.6		7	+	7.4	
VA04H-59	81		60.1	-	17	+	36	+	1.2		2	-	7.6	
VA04H-25	80		61.6	+	16		31		0.3		3	-	7.8	
VA01H-68	79		61.1		13	-	29	-	1.7		5	+	8.4	
VA03H-58	77	-	60.8		19	+	28	-	6.7	+	4		6.0	-
H-585	76	-	59.4	-	13	-	30		0.8		5	+	8.4	
VA03H-64	74	-	61.2	+	17	+	32		0.8		4		7.3	
Average	84		60.7		16		31		1.7		4		7.6	
C.V.	6		0.6		4		4		---		---		12.0	
LSD (0.05)	7		0.5		1		2		1.6		1		1.3	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 10. Summary of performance of hulled entries in the Virginia Tech Barley Test over locations, 2006 harvest.

Hulled Lines[a,b]	Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Mar31+)	Height (In)	Lodging (0.2-10)[c]	Net Blotch (0-9)[d]	Leaf Rust (0-9)[d]	Leaf Spot (0-9)[d]	Early Height (In)
	(7)[e]	(7)	(4)	(4)	(6)	(1)	(3)	(2)	(2)
Thoroughbred	133 +[f]	48.4 +	20 +	33	0.9 -	2	4 +	2 -	7.3 +
VA03B-25	131 +	47.8 +	22 +	37 +	1.7 -	2	2	2 -	4.8 -
VA04B-180	129 +	47.1	16 -	30 -	2.2	2	4 +	2 -	6.7
VA04B-8	127 +	48.1 +	23 +	35 +	3.0 +	2	2	2 -	5.3 -
VA04B-7	127 +	46.9	20 +	34 +	2.0	2	2	2 -	5.6 -
VA04B-120	126 +	45.8	18 +	33	3.7 +	2	2	3	6.1
VA04B-178	124 +	47.5	16 -	30 -	1.7 -	2	4 +	2 -	6.6
VA03B-171	124 +	48.7 +	17	36 +	2.1	2	2	3	6.7
VA03B-59	123	47.3	14 -	30 -	3.6 +	3 +	3 +	5 +	6.3
VA03B-176	123	48.1 +	18 +	33	2.3	2	3 +	3	6.1
VA03B-44	121	46.0	17	31 -	2.1	2	1 -	2 -	5.3 -
VA04B-54	120	47.2	18 +	34 +	2.4	3 +	1 -	5 +	6.1
VA03B-58	120	48.1 +	17	31 -	2.3	2	2	3	5.6 -
MD931046-38	117	40.6 -	17	35 +	1.5 -	2	1 -	3	7.0
Callao	117	47.7 +	14 -	30 -	5.0 +	3 +	2	4 +	7.1
VA96-44-304	116	47.7 +	13 -	31 -	3.9 +	3 +	3 +	4 +	7.8 +
Price	116	49.0 +	17	32 -	2.3	3 +	2	4 +	6.8
MD931046-93	116	43.1 -	17	34 +	0.8 -	2	1 -	3	7.0
VA04B-86	114	47.5	18 +	34 +	1.8 -	2	3 +	3	6.2
MD931060-15	114	42.4 -	17	35 +	1.6 -	2	2	3	6.8
MD931043-25	114	44.0 -	15 -	31 -	4.2 +	4 +	2	4 +	6.2
VA03B-183	110 -	46.4	15 -	31 -	2.9	3 +	2	3	7.1
Wysor	95 -	45.5	17	37 +	2.5	3 +	4 +	3	6.9
VA92-42-46	93 -	46.1	16 -	38 +	1.6 -	4 +	1 -	4 +	7.8 +
Barsoy	85 -	43.2 -	13 -	35 +	2.3	2	6 +	2 -	7.6 +
Average	118	46.4	17	33	2.4	2	2	3	6.5
C.V.	9	4.8	5	6	---	---	---	---	12.4
LSD (0.05)	6	1.2	1	1	0.6	1	1	1	0.8

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] The number of locations on which data are based.

[f] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 11. Two-year average summary of performance of hulled entries in the Virginia Tech Barley Tests, 2005 and 2006 harvests.

Hulled Lines[a,b]	Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Mar31+)	Height (In)	Lodging (0.2-10)[c]	Net Blotch (0-9)[d]	Leaf Rust (0-9)[d]	Leaf Spot (0-9)[d]	Early Height (In)	Winter Survival (%)
	(11)[e]	(12)	(7)	(7)	(11)	(2)	(4)	(2)	(2)	(1)
Thoroughbred	132 +[f]	48.0 +	24 +	35	0.7 -	3 -	5 +	2 -	7.3	97
VA03B-176	123 +	47.9 +	22 +	34 -	1.6 -	3 -	3	3	6.1 -	99
VA03B-58	121 +	47.9 +	21 +	33 -	1.9	2 -	2 -	3	5.6 -	92
Price	118 +	48.4 +	21 +	33 -	2.0	4	3	4 +	6.8	99
Callao	117	47.6 +	17 -	32 -	5.1 +	4	3	4 +	7.1	98
VA96-44-304	116	47.7 +	17 -	32 -	3.0 +	5 +	3	4 +	7.8 +	80
Wysor	108 -	45.4 -	21 +	39 +	2.0	3 -	5 +	3	6.9	98
VA92-42-46	104 -	46.0 -	20	40 +	1.3 -	6 +	1 -	4 +	7.8 +	76 -
Barsoy	87 -	43.3 -	17 -	36 +	1.9	3 -	7 +	2 -	7.6	99
Average	114	46.9	20	35	2.2	4	3	3	7	93
C.V.	9	3.1	5	6	---	---	---	---	12.1	13
LSD (0.05)	4	0.6	1	1	0.5	0.47	1	1	0.8	17

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] The number of locations on which data are based.

[f] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 12. Three-year average summary of performance of hulled entries in the Virginia Tech Barley Tests, 2004, 2005, and 2006 harvests.

Hulled Lines[a,b]	Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Mar31+)	Height (In)	Lodging (0.2-10)[c]	Net Blotch (0-9)[d]	Leaf Rust (0-9)[d]	Leaf Spot (0-9)[d]	Early Height (In)	Winter Survival (%)
	(14)[e]	(15)	(10)	(10)	(14)	(3)	(5)	(2)	(2)	(1)
Thoroughbred	131 +[f]	48.0 +	24 +	35	0.7 -	3 -	5 +	2 -	7.3	97
Callao	118 +	47.9 +	19 -	32 -	4.6 +	4	3 -	4 +	7.1	98
Price	116 +	48.5 +	21 +	33 -	1.7	5 +	3 -	4 +	6.8	99
VA96-44-304	115 +	47.8 +	18 -	32 -	2.6 +	5 +	3 -	4 +	7.8	80
Wysor	101 -	45.3 -	22 +	38 +	1.8	3 -	5 +	3	6.9	98
VA92-42-46	100 -	46.0 -	21 +	40 +	1.2 -	7 +	0 -	4 +	7.8	76
Barsoy	86 -	43.9 -	18 -	36 +	1.6 -	3 -	7 +	2 -	7.6	99
Average	110	46.8	20	35	2	4	4	3	7.3	92
C.V.	9	3.3	4	6	---	---	---	---	12.1	13
LSD (0.05)	4	0.6	0.4	1	0.4	1	1	1	0.9	18

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] The number of locations on which data are based.
[f] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 13. Summary of performance of hulled entries in the Virginia Tech Barley Test, Eastern Virginia AREC, Warsaw, Va., 2006 harvest.

Hulled Lines[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Leaf Rust (0-9)[d]		Early Height (In)	
VA03B-25	136	+[e]	48.8	+	21	+	34	+	1.5		3		4.1	-
VA04B-8	132	+	48.6	+	22	+	32		3.0	+	3		5.0	-
VA03B-176	128		48.3	+	15		30		1.3		4	+	6.1	
VA04B-178	127		48.1	+	14	-	27	-	1.2		5	+	6.6	
VA04B-180	126		48.6	+	14	-	28		0.9		4	+	7.0	
VA04B-120	125		46.6		17		28		2.8	+	2	-	5.6	
Callao	125		49.1	+	12	-	28		4.8	+	2	-	7.6	+
VA04B-54	123		47.4		16		31		1.0		2	-	5.6	
Thoroughbred	122		48.9	+	19	+	32		0.5	-	6	+	7.1	
VA03B-59	121		47.8		13	-	27	-	1.8		4	+	6.6	
VA03B-171	121		49.0	+	15		33	+	1.2		3		6.9	
VA04B-7	120		47.6		19	+	29		1.5		4	+	5.4	
VA03B-44	117		46.4	-	16		26	-	0.6	-	2	-	5.1	-
MD931043-25	112		47.4		13	-	27	-	5.7	+	2	-	5.9	
VA03B-58	108		48.3	+	15		27	-	1.4		2	-	5.4	
VA03B-183	108		47.6		12	-	28		1.4		3		6.8	
VA96-44-304	107		48.4	+	11	-	29		2.5		4	+	8.8	+
VA04B-86	106		47.3		18	+	31		0.8		3		6.4	
MD931046-93	104		42.6	-	17		30		0.4	-	1	-	6.4	
MD931046-38	100		43.1	-	17		31		0.4	-	1	-	6.0	
VA92-42-46	99		46.0	-	15		33	+	1.1		1	-	7.8	+
Price	99		48.4	+	15		28		1.7		3		6.1	
MD931060-15	99		44.0	-	17		31		0.3	-	2	-	5.8	
Wysor	96	-	45.3	-	16		32		1.5		5	+	6.6	
Barsoy	75	-	46.0	-	11	-	31		3.0	+	7	+	8.1	+
Average	113		47.2		16		30		1.7		3		6.3	
C.V.	10		1.2		7		8		---		---		13.2	
LSD (0.05)	16		0.8		2		3		1.1		1		1.2	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 14. Summary of performance of hulled entries in the Virginia Tech Barley Test, Eastern Shore AREC, Painter, Va., 2006 harvest.

Hulled Lines[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Lodging (0.2-10)[c]		Leaf Rust (0-9)[d]		Leaf Spot (0-9)[d]	
VA04B-7	126	+[e]	47.2		5.4		2		1	-
VA04B-120	123	+	45.9		5.3		3		2	-
VA04B-180	117		48.0		4.2		4		2	-
VA04B-8	116		48.2		6.3		2		2	-
VA03B-44	114		45.2		5.6		1	-	2	-
VA03B-25	114		48.1		4.7		2		1	-
VA03B-176	113		48.3		6.8	+	3		2	-
Thoroughbred	113		48.8	+	1.0	-	5	+	0	-
MD931060-15	112		44.3	-	3.1		2		3	
VA03B-58	111		48.6		5.0		2		3	
MD931046-38	110		43.2	-	2.3	-	1	-	2	-
VA04B-178	109		48.4		2.9		4		3	
VA04B-54	107		47.7		4.5		1	-	4	+
VA03B-59	107		47.9		7.6	+	4		6	+
MD931046-93	107		41.9	-	1.1	-	1	-	3	
VA96-44-304	104		48.5		6.8	+	3		4	+
VA03B-171	104		49.9	+	3.0		1	-	4	+
MD931043-25	104		42.9	-	6.4		2		3	
VA04B-86	102		48.9	+	3.5		4		3	
Price	102		49.6	+	3.5		2		3	
Callao	102		48.0		6.5	+	3		4	+
VA03B-183	99		46.4		7.0	+	1	-	3	
Wysor	95		45.8		5.6		5	+	1	-
VA92-42-46	94		46.7		2.9		0	-	3	
Barsoy	68	-	39.9	-	3.5		8	+	1	-
Average	107		46.7		4.6		3		3	
C.V.	9		3.1		---		---		---	
LSD (0.05)	14		2.0		1.9		2		1	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 15. Summary of performance of hulled entries in the Virginia Tech Barley Test, Northern Piedmont AREC, Orange, Va., 2006 harvest.

Hulled Lines[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]	
VA03B-171	147	+[d]	47.0		18		42	+	0.2	
Callao	146	+	43.5		16	-	36	-	1.8	
Thoroughbred	146	+	46.7		20	+	41	+	0.2	
VA03B-25	145		46.1		21	+	41	+	0.2	
VA04B-120	145		45.4		18		39		0.2	
VA03B-59	145		45.0		15	-	36	-	0.2	
VA03B-44	144		43.0		18		37	-	0.2	
VA04B-178	144		46.8		17	-	36	-	0.2	
VA96-44-304	141		46.8		15	-	37	-	0.2	
VA04B-180	138		45.4		17	-	36	-	0.2	
MD931043-25	135		37.2	-	17	-	38	-	0.5	
VA04B-86	135		44.2		18		41	+	0.2	
VA03B-58	134		45.9		18		37	-	0.2	
VA04B-7	133		44.5		20	+	39		0.2	
VA04B-8	132		47.5		21	+	39		0.2	
VA92-42-46	127		45.0		17	-	46	+	0.4	
Wysor	126		45.5		18		44	+	2.3	+
VA04B-54	126		45.0		18		39		0.2	
MD931046-93	124		43.3		17	-	41	+	0.3	
VA03B-176	122		47.8		19	+	38	-	0.2	
VA03B-183	122		42.1		17	-	38	-	0.2	
MD931060-15	119		34.0	-	17	-	41	+	3.5	+
Price	118	-	48.4	+	18		38	-	0.2	
MD931046-38	108	-	38.1	-	17	-	40	+	1.3	
Barsoy	94	-	35.9	-	14	-	43	+	0.2	
Average	132		43.8		18		39		0.5	
C.V.	8		6.9		4		2		---	
LSD (0.05)	14		4.5		1		1		1.4	

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.

[d] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 16. Summary of performance of hulled entries in the Virginia Tech Barley Test, Kentland Farm, Blacksburg, Va., 2006 harvest.

Hulled Lines[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Net Blotch (0-9)[d]		Leaf Rust (0-9)[d]	
Thoroughbred	164	+[e]	49.9		22	+	28	-	0.2		2		2	
VA04B-180	163	+	49.5		18	-	30	-	0.2		2		2	
VA03B-176	158		49.6		20	+	33		0.3		2		1	-
VA04B-120	157		47.7		20	+	32		0.3		2		1	-
VA03B-171	156		50.2		20	+	34		0.3		2		2	
VA04B-86	154		49.6		20	+	34		0.2		2		2	
VA03B-59	153		49.0		15	-	30	-	0.3		3	+	2	
MD931046-38	153		43.8	-	18	-	35		0.3		2		2	
VA04B-7	153		48.3		22	+	34		0.2		2		1	-
VA04B-8	152		49.1		26	+	35		0.3		2		2	
VA03B-58	151		49.9		18	-	32		0.2		2		2	
VA03B-44	151		49.0		18	-	32		0.2		2		1	-
MD931046-93	150		47.0		19		33		0.5		2		2	
VA04B-54	150		49.3		20	+	34		0.4		3	+	1	-
Price	150		50.4		19		32		0.2		3	+	1	-
VA04B-178	148		48.9		17	-	30	-	0.3		2		2	
MD931060-15	146		45.9	-	18	-	35		0.2		2		2	
VA03B-25	146		48.3		24	+	38	+	0.2		2		1	-
VA96-44-304	145		49.9		14	-	30	-	1.0		3	+	2	
Wysor	144		47.5		18	-	36	+	0.6		3	+	1	-
VA03B-183	143		49.0		17	-	31		0.6		3	+	1	-
Callao	139		50.0		16	-	30	-	1.8	+	3	+	2	
VA92-42-46	138		48.1		19		37	+	0.2		4	+	2	
MD931043-25	130	-	47.4		16	-	30	-	2.5	+	4	+	2	
Barsoy	111	-	48.0		15	-	34		0.4		2		2	
Average	148		48.6		19		33		0.5		2		2	
C.V.	6		2.8		4		7		---		---		---	
LSD (0.05)	12		1.9		1		3		0.6		1		1	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 17. Summary of performance of hulled entries in the Virginia Tech Barley Test, Southern Piedmont AREC, Blackstone, Va., 2006 harvest.

Hulled Lines [a,b]	Yield (Bu/a)		Test Weight (Lb/bu)	
Thoroughbred	121	+[c]	49.9	
Price	115		51.2	
VA04B-178	114		49.0	
VA03B-25	113		49.0	
VA04B-180	113		47.9	
VA04B-7	112		49.3	
VA03B-59	111		50.2	
MD931043-25	110		46.7	
Callao	109		50.1	
VA96-44-304	109		49.6	
VA04B-54	109		48.3	
VA03B-171	108		50.3	
VA04B-8	108		49.6	
VA03B-58	107		50.8	
MD931060-15	106		44.5	
VA03B-176	105		48.9	
VA03B-44	104		48.3	
VA04B-120	103		46.6	
MD931046-38	103		32.6	-
Wysor	100		48.6	
VA03B-183	99		49.4	
MD931046-93	97		43.9	
VA04B-86	90	-	50.2	
VA92-42-46	90	-	49.0	
Barsoy	89	-	44.9	
Average	106		47.9	
C.V.	9		9.5	
LSD (0.05)	14		6.5	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Table 18. Summary of performance of hulled entries in the Virginia Tech Barley Test under no-till conditions, Eastern Virginia AREC, Warsaw, Va., 2006 harvest.

Hulled Lines[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Leaf Spot (0-9)[d]		Early Height (In)	
VA03B-25	150	+[e]	47.4	+	21	+	37	+	2.3		2	-	5.5	-
Thoroughbred	145	+	48.0	+	19	+	32		1.8	-	4	+	7.4	
VA04B-7	143	+	46.8	+	20	+	33	+	3.0		2	-	5.9	
VA04B-8	142	+	47.8	+	22	+	34	+	4.8		2	-	5.6	
VA03B-176	137		47.1	+	17	+	31		2.9		3		6.0	
MD931046-38	136		42.9	-	16		35	+	1.6	-	3		8.0	+
MD931046-93	133		42.4	-	16		33	+	1.1	-	3		7.6	
VA04B-180	133		46.9	+	15	-	28	-	2.3		2	-	6.4	
VA04B-178	131		46.8	+	15	-	27	-	2.2		2	-	6.5	
VA04B-120	129		45.2		17	+	31		6.7	+	3		6.6	
VA03B-171	129		48.0	+	16		33	+	3.0		2	-	6.5	
VA03B-59	129		46.6		14	-	26	-	5.3	+	4	+	6.0	
VA03B-58	128		47.5	+	17	+	29	-	3.6		2	-	5.8	
VA04B-54	126		46.4		16		33	+	3.1		5	+	6.5	
Price	123		47.7	+	16		30		4.1		5	+	7.4	
MD931043-25	122		44.7	-	14	-	28	-	8.0	+	6	+	6.5	
VA03B-44	122		45.0	-	17	+	29	-	3.7		2	-	5.4	-
MD931060-15	120		42.9	-	16		35	+	1.4	-	3		7.8	+
VA03B-183	118		45.5		14	-	27	-	5.0		3		7.5	
Callao	113		47.1	+	13	-	27	-	7.7	+	4	+	6.5	
VA96-44-304	108		46.9	+	12	-	28	-	6.0	+	4	+	6.8	
VA04B-86	108		46.8	+	18	+	32		0.7	-	3		6.0	
Barsoy	86	-	44.6	-	11	-	31		5.1		2	-	7.1	
VA92-42-46	79	-	44.5	-	15	-	36	+	3.5		6	+	7.9	+
Wysor	76	-	43.0	-	15	-	34	+	2.9		5	+	7.1	
Average	123		45.9		16		31		3.7		3		6.6	
C.V.	10		1.4		5		4		---		---		11.5	
LSD (0.05)	18		0.9		1		2		1.6		1		1.1	

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is barley unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is barley standing upright and 5 is barley totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] A plus or minus sign indicates a performance significantly above or below the test average, where hulled and hulless lines have been statistically analyzed separately.

Secton 2: Wheat Varieties

Discussion and Summary of 2006

Wheat tests were planted in seven-inch rows at Blackstone, Orange, Holland, Painter, and Shenandoah Valley. They were planted in six-inch rows at Warsaw and Blacksburg. They were planted in seven and one-half-inch rows at the Warsaw no-till location. All no-till locations (Holland, Warsaw no-till, and Shenandoah Valley) were planted at 28 seeds per row foot. All other locations were planted at 22 seeds per row foot.

When evaluating wheat variety performance as presented in this report, one should consider the use of seed treatment. Certain entries in this test have different seed treatments that may greatly impact performance. Seed treatments are indicated by an acronym in parentheses following the name. "B" is Baytan®, "D" is Dividend®, "R" is raxil, and "T" is thiram. For example, USG3209 (RT) indicates that this entry was treated with raxil and thiram. Virginia Tech experimental lines and some public varieties such as Massey were treated with raxil and thiram.

Selecting the best wheat varieties is challenging but becomes easier with adequate information on performance over multiple environments. Tests across multiple seasons throughout Virginia provided the opportunity to evaluate day-length sensitivity, spring freeze damage, glume blotch, scab (Fusarium head blight), and general plant health. Many newer wheat varieties and lines performed well in all environments tested.

The future for wheat varieties adapted to Virginia conditions is very positive. Carl Griffey, Virginia Tech's small grains breeder, has many lines starting with "VA" shown in the by-location tables that are in the top-yielding group and that display good disease resistance.

The released varieties that yielded significantly higher than the statewide mean in 2006 were SS 550, Pioneer Brand 26R24, Pioneer Brand 26R15, SS MPV 57, Vigoro 9510, USG 3209, Sisson, SS 560, and Chesapeake. Sisson and Chesapeake had mean test weights that were significantly higher than the test mean. The fact that varieties with a wide maturity range and other characteristics did well this year is promising in that producers have the opportunity to select good varieties to fit different management schemes. Test weights overall were very high due to favorable environmental conditions during grain fill. This lack of stress resulted in little difference among varieties tested and thus only a few were shown to have test weights significantly above or below the trial mean. Producers who grow large acreages of wheat should plant two or more varieties having significantly different maturity dates in order to ensure harvest of high-quality grain with high test weight and no sprouting. In Virginia, it is typical that the first good week of wheat harvest is followed by a period of sporadic or consistent rain showers, which delay subsequent harvest and significantly reduce grain test weight and quality. Growers can circumvent this problem by planting varieties that differ significantly in maturity wherein early maturing varieties often can be harvest first and prior to significant rain showers, and later maturing varieties harvested subsequently will suffer less damage and losses in test weight and quality due to exposure to such a rain event.

Varieties with three-year average yields higher than the statewide average include SS MPV 57, USG 3209, Pioneer Brand 26R24, SS 550, SS 560, Featherstone 176, and Pioneer Brand 26R15.

Other varieties with above average yields across two years are SS 8404, Vigoro 9510, USG 3706, and Sisson.

Three locations in 2005-06, Warsaw no-till, Shenandoah Valley, and Holland were planted no-till following corn. Individual sites are reported similar to other testing locations. These sites are also included in the overall yearly average. A table averaging performance of varieties only at these no-till sites is also included for reference. In this over-location no-till summary, seven of the eight lines with significantly higher yields were also in the top-yielding group of the overall summary table.

Summary of wheat management practices for the 2006 harvest season

(All rates are given on a per acre basis.)

Blacksburg - Planted October 15, 2005. Preplant fertilizer was 25-80-80 in October 2005. Site was fertilized with 96-0-0 plus 0.6 oz Harmony Extra® on March 27, 2006. Harvest occurred on July 2, 2006.

Warsaw - Planted October 20, 2005. Preplant fertilizer was 30-60-60 applied October 18, 2005. Site was fertilized at 27 lb N using 24-0-0-3 on December 14, 2005. Site was sprayed with 0.4 oz Finesse® and fertilized at 30 lb N using 24-0-0-3 on February 27, 2006. Site was fertilized at 60 lb N on April 2, 2006 using 24-0-0-3. Site was sprayed with 2.56 oz Warrior® April 28, 2006. Harvest occurred June 18, 2006.

Blackstone - Planted October 27, 2005. Preplant fertilizer was 300 lb 10-20-20 on October 19, 2005. Site was fertilized with 60 lb N using 30%UAN on January 27, 2006 and sprayed with 0.5 oz Harmony Extra® on February 16, 2006. Site was fertilized with 60 lb N using 30%UAN March 13, 2006. Site was sprayed with 2.56 oz Warrior® April 11, 2006. Harvest occurred on June 13, 2006.

Painter - Planted November 1-2, 2005. Preplant fertilizer was 500 lb 5-10-10 on October 31, 2005. Site was fertilized with 60 lb N and sprayed with 0.5 oz Harmony Extra® March 11, 2006. Site was fertilized with 50 lb N April 6, 2006. Harvest occurred on June 20, 2006.

Holland – Planted no-till November 7-8, 2005. Preplant fertilization was 350 lb 9-16-31 plus 1 ton lime on November 4, 2005. Site was fertilized with 60 lb N and sprayed with 0.75 oz Harmony Extra® on January 28, 2006. Site was sprayed with 4.75 oz Osprey® on February 23, 2006. Site was fertilized with 60 lb N March 9, 2006. Harvest occurred on June 22, 2006.

Orange - Planted October 17, 2005. Preplant fertilization was 25-64-36-36S on October 3, 2005, followed by 1 qt Gramoxone Max® on October 20, 2005. Site was fertilized with 60 lb N and sprayed with Harmony Extra® at 0.4 oz on March 8, 2006. Harvest occurred on June 17, 2006.

Shenandoah Valley - Planted no-till on October 19, 2005. Site was fertilized with 50 lb N and sprayed with 0.6 oz Harmony Extra® February 10, 2006. Site was fertilized with 50 lb N March 28, 2006. Harvest occurred July 7, 2006.

Table 19. Summary of performance of entries in the Virginia Tech Wheat Test, 2006 harvest.

Line[a,b]	Yield (Bu/a) (8)[g]		Test Weight (Lb/bu) (8)		Date Headed (Mar31+) (4)		Height (In) (4)		Lodging (0.2-10)[c] (5)	Powdery Mildew (0-9)[d] (1)		Leaf Rust (0-9)[d] (3)		Barley Yellow Dwarf Virus (0-9)[d] (1)		Early Height (In) (2)		Hessian Fly Resistance (Biotypes)[e]	Awns[f]
VA04W-306(RT)	103	+[h]	60.0		24	-	33		1.1	0	-	3	+	1	-	9.8		---	AL
VA03W-110(RT)	102	+	59.3	-	25		33		0.7	3	+	1	-	4	+	9.8		---	AL
VA04W-227(RT)	101	+	60.0		26	+	33		0.9	2		5	+	1	-	9.1		---	AL
SS 550(RT)	98	+	59.5	-	25		32	-	1.0	2		5	+	2		8.8		---	AL
VA03W-412(RT)	98	+	60.8	+	24	-	32	-	0.3	2		3	+	2		9.4		---	AL
VA04W-259(RT)	98	+	60.1	+	27	+	31	-	0.9	1	-	1	-	1	-	9.8		---	AL
Pioneer 26R24(D)	97	+	60.0		24	-	35	+	0.5	2		1	-	2		9.1		E	AL
VA02W-398(RT)	97	+	58.7	-	24	-	32	-	1.0	0	-	1	-	3	+	9.8		---	AL
VA04W-439(RT)	97	+	60.8	+	24	-	33		0.4	0	-	5	+	2		9.2		---	AL
VA02W-713(RT)	96	+	61.4	+	23	-	35	+	0.8	0	-	4	+	2		10.2	+	BCDE	AL
VA03W-409(RT)	96	+	58.6	-	27	+	31	-	0.2	0	-	1	-	1	-	8.4	-	C	AL
VA03W-310(RT)	96	+	58.1	-	23	-	32	-	0.8	1	-	1	-	3	+	9.7		---	A
VA00W-38(RT)	95	+	59.0	-	26	+	33		0.8	1	-	2		1	-	9.3		---	AL
VA01W-205(RT)	95	+	60.6	+	24	-	29	-	0.7	2		1	-	2		9.8		---	AL
Pioneer 26R15(D)	95	+	59.0	-	26	+	33		0.2	2		1	-	2		8.9		BE	AL
SS-MPV 57(RT)	95	+	59.2	-	27	+	35	+	0.3	4	+	4	+	2		9.3		---	AL
VA03W-436(RT)	95	+	59.4	-	26	+	28	-	0.3	0	-	1	-	1	-	8.4	-	---	AL
VA03W-203(RT)	95	+	59.7	-	24	-	31	-	1.1	1	-	1	-	2		9.8		---	A
V9510(DE)	95	+	59.5	-	25		33		0.9	3	+	4	+	3	+	9.3		---	AL
USG 3209(DE)	94	+	59.5	-	25		31	-	1.1	2		6	+	1	-	9.7		BE	AL

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] Seedlings of all lines were tested for resistance to five biotypes of Hessian Fly, including B, C, D, E, and L, over two years. Letters in column indicate varietal resistance to specified biotype(s). Lines lacking letters were susceptible to all biotypes.

[f] A = Awned, AL = Awnless or short awns.

[g] The number in parentheses below column headings indicates the number of locations on which data are based.

[h] A plus or minus sign indicates a performance significantly above or below the test average.

Table 19. Summary of performance of entries in the Virginia Tech Wheat Test, 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a) (8)[g]		Test Weight (Lb/bu) (8)		Date Headed (Mar31+) (4)		Height (In) (4)		Lodging (0.2-10)[c] (5)		Powdery Mildew (0-9)[d] (1)		Leaf Rust (0-9)[d] (3)		Barley Yellow Dwarf Virus (0-9)[d] (1)		Early Height (In) (2)		Hessian Fly Resistance (Biotypes)[e]	Awns[f]
Sisson(RT)	94	+	60.1	+	23	-	31	-	1.0		1	-	7	+	2		9.9	+	---	AL
SS 560(RT)	94	+	59.5	-	26	+	32	-	0.2		3	+	3	+	2		8.6		---	A
Chesapeake(RT)	94	+	60.5	+	25		32	-	0.9		0	-	3	+	3	+	9.6		---	AL
VA04W-86(RT)	94	+	59.5	-	23	-	32	-	0.8		1	-	4	+	2		9.9	+	---	AL
GA-951395-3E25	94	+	60.0		25		31	-	0.2		4	+	1	-	2		10.6	+	---	AL
Dominion(RT)	93		59.9		26	+	31	-	0.5		0	-	1	-	1	-	8.4	-	---	AL
Pioneer 26R12(D)	93		60.6	+	26	+	33		0.2		2		2		1	-	8.9		---	AL
Pioneer 26R31	93		58.9	-	25		29	-	0.2		0	-	1	-	2		9.2		E	AL
SS 8302(RT)	93		60.2	+	26	+	35	+	0.2		5	+	2		3	+	9.9	+	---	AL
SS 8309(RT)	93		59.8		27	+	34	+	0.3		2		3	+	1	-	7.8	-	---	AL
SS 8404(RT)	93		61.1	+	26	+	30	-	0.3		3	+	2		2		9.5		---	A
Featherstone 176(RT)	93		59.4	-	23	-	34	+	1.4	+	0	-	3	+	2		9.8		E	A
VA02W-555(RT)	93		58.7	-	24	-	30	-	0.3		1	-	4	+	2		9.8		---	AL
VA03W-235(RT)	93		60.0		27	+	34	+	1.0		2		2		2		9.1		---	AL
VA03W-434(RT)	93		59.6	-	26	+	27	-	0.4		0	-	1	-	1	-	8.5	-	---	AL
95047-6-3-18	93		58.7	-	26	+	35	+	0.6		3	+	3	+	1	-	9.2		---	AL
GA-951395-3A31	93		60.0		24	-	31	-	0.8		4	+	1	-	2		10.4	+	---	AL
USG 3665(DE)	93		59.6	-	25		33		0.3		2		1	-	2		8.4	-	---	AL
SS 520(RT)	92		59.0	-	23	-	34	+	0.8		0	-	1	-	4	+	9.7		---	AL

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] Seedlings of all lines were tested for resistance to five biotypes of Hessian Fly, including B, C, D, E, and L, over two years. Letters in column indicate varietal resistance to specified biotype(s). Lines lacking letters were susceptible to all biotypes.
[f] A = Awned, AL = Awnless or short awns.
[g] The number in parentheses below column headings indicates the number of locations on which data are based.
[h] A plus or minus sign indicates a performance significantly above or below the test average.

Table 19. Summary of performance of entries in the Virginia Tech Wheat Test, 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a) (8)[g]	Test Weight (Lb/bu) (8)	Date Headed (Mar31+) (4)	Height (In) (4)	Lodging (0.2-10)[c] (5)	Powdery Mildew (0-9)[d] (1)	Leaf Rust (0-9)[d] (3)	Barley Yellow Dwarf Virus (0-9)[d] (1)	Early Height (In) (2)	Hessian Fly Resistance (Biotypes)[e]	Awns[f]
Tribute(DE)	92	61.9 +[h]	25	31 -	0.9	0 -	1 -	1 -	7.3 -	---	A
VA03W-453(RT)	92	59.4 -	25	32 -	0.9	1 -	1 -	2	8.8	---	AL
VA03W-204(RT)	92	60.3 +	24 -	34 +	0.9	0 -	1 -	1 -	10.6 +	---	AL
VA03W-435(RT)	92	59.3 -	26 +	28 -	0.4	0 -	1 -	2	7.9 -	---	AL
VA04W-264(RT)	92	59.6 -	25	33	1.4 +	0 -	1 -	1 -	9.9 +	---	A
Featherstone 520(RT)	91	60.9 +	24 -	34 +	1.9 +	1 -	3 +	2	10.3 +	---	AL
Coker 9436(D)	91	57.7 -	30 +	32 -	0.9	3 +	1 -	2	7.7 -	BC	AL
VA04W-90(RT)	91	59.9	26 +	34 +	0.4	1 -	3 +	1 -	9.6	---	AL
MSU Line E1007	91	59.5 -	27 +	36 +	0.2	3 +	4 +	1 -	9.4	---	AL
USG 3910(DE)	91	60.3 +	25	33	0.6	2	2	1 -	8.0 -	---	AL
Panola(D)	91	58.6 -	24 -	33	0.2	1 -	3 +	2	9.4	---	AL
NC00-15332(R)	90	58.2 -	27 +	35 +	0.2	0 -	2	1 -	8.8	E	A
VA02W-124(RT)	90	59.2 -	25	34 +	0.7	1 -	1 -	2	9.3	---	AL
VA03W-456(RT)	90	60.0	27 +	34 +	0.6	0 -	1 -	1 -	7.6 -	---	AL
USG 3592(DE)	90	59.9	26 +	36 +	1.3 +	3 +	1 -	2	9.3	---	A
M01-4377(D)	90	60.7 +	27 +	35 +	0.8	6 +	2	1 -	6.8 -	---	AL
Tribute-USG 3592 blend	90	60.8 +	26 +	35 +	0.7	2	1 -	1 -	8.7	---	AL
USG 3706(DE)	89	60.5 +	25	30 -	0.7	1 -	1 -	2	8.6	---	AL

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] Seedlings of all lines were tested for resistance to five biotypes of Hessian Fly, including B, C, D, E, and L, over two years. Letters in column indicate varietal resistance to specified biotype(s). Lines lacking letters were susceptible to all biotypes.
[f] A = Awned, AL = Awnless or short awns.
[g] The number in parentheses below column headings indicates the number of locations on which data are based.
[h] A plus or minus sign indicates a performance significantly above or below the test average.

Table 19. Summary of performance of entries in the Virginia Tech Wheat Test, 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a) (8)[g]	Test Weight (Lb/bu) (8)	Date Headed (Mar31+) (4)	Height (In) (4)	Lodging (0.2-10)[c] (5)	Powdery Mildew (0-9)[d] (1)	Leaf Rust (0-9)[d] (3)	Barley Yellow Dwarf Virus (0-9)[d] (1)	Early Height (In) (2)	Hessian Fly Resistance (Biotypes)[e]	Awns[f]
VA02W-370(RT)	89	60.7 +	22 -	30 -	0.3	2	2	2	9.9 +	BCDE	AL
VA02W-513(RT)	89	60.6 +	24 -	30 -	0.2	1 -	1 -	4 +	9.1	---	AL
VA03W-411(RT)	89	59.5 -	25	34 +	0.4	0 -	1 -	3 +	10.1 +	---	A
V9412(DE)	88 -	60.1 +	25	33	0.8	2	2	1 -	8.4 -	CDE	A
VA01W-243(RT)	88 -	59.8	24 -	32 -	1.3 +	4 +	1 -	3 +	9.9 +	BE	AL
VA04W-563(RT)	88 -	60.7 +	23 -	34 +	0.8	5 +	2	3 +	9.8	---	AL
Coker 9553(D)	88 -	60.4 +	23 -	34 +	0.2	2	2	4 +	9.8	---	AL
Choptank(RT)	87 -	59.8	24 -	28 -	0.4	0 -	2	2	9.5	---	AL
Tribute-Neuse blend	87 -	61.3 +	26 +	32 -	0.7	0 -	1 -	1 -	8.8	---	AL
USG 3342(DE)	86 -	59.2 -	24 -	30 -	0.2	0 -	2	5 +	9.8	C	AL
Coker 9184(D)	86 -	61.0 +	27 +	32 -	0.4	3 +	1 -	2	8.5 -	C	A
Renwood 3260(DE)	86 -	60.4 +	23 -	34 +	1.3 +	0 -	1 -	3 +	9.1	---	AL
VA03W-211(RT)	86 -	60.6 +	22 -	31 -	0.2	2	1 -	4 +	9.4	CE	AL
95053-1A-11-6	86 -	58.9 -	27 +	36 +	1.8 +	0 -	2	1 -	9.1	---	AL
Pioneer XW04C	86 -	61.6 +	23 -	33	0.2	1 -	1 -	3 +	10.3 +	---	A
GA-96229-3A41	86 -	60.1 +	26 +	34 +	0.7	0 -	1 -	3 +	9.7	---	A
Neuse-USG 3592 blend	86 -	60.2 +	27 +	35 +	0.5	2	1 -	2	9.3	---	AL

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] Seedlings of all lines were tested for resistance to five biotypes of Hessian Fly, including B, C, D, E, and L, over two years. Letters in column indicate varietal resistance to specified biotype(s). Lines lacking letters were susceptible to all biotypes.
[f] A = Awned, AL = Awnless or short awns.
[g] The number in parentheses below column headings indicates the number of locations on which data are based.
[h] A plus or minus sign indicates a performance significantly above or below the test average.

Table 19. Summary of performance of entries in the Virginia Tech Wheat Test, 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a) (8)[g]	Test Weight (Lb/bu) (8)	Date Headed (Mar31+) (4)	Height (In) (4)	Lodging (0.2-10)[c] (5)	Powdery Mildew (0-9)[d] (1)	Leaf Rust (0-9)[d] (3)	Barley Yellow Dwarf Virus (0-9)[d] (1)	Early Height (In) (2)	Hessian Fly Resistance (Biotypes)[e]	Awns[f]
McCormick(RT)	85 -	61.4 +	25	30 -	0.2	0 -	7 +	2	8.8	C	AL
Coker 9511(D)	84 -	60.6 +	24 -	33	0.6	3 +	1 -	2	8.1 -	---	AL
GA-951216-2E26	84 -	60.7 +	24 -	34 +	0.2	5 +	1 -	3 +	9.6	---	AL
GA-96229-3E39	84 -	60.5 +	26 +	35 +	0.6	0 -	1 -	3 +	9.4	---	A
B990133(D)	84 -	59.9	23 -	31 -	0.7	0 -	1 -	4 +	9.0	---	AL
USG 3137(DE)	83 -	59.4 -	25	37 +	1.0	5 +	1 -	1 -	8.6	BCE	AL
GA-951079-2E31	81 -	60.5 +	23 -	34 +	1.8 +	1 -	1 -	4 +	10.2 +	DL	AL
Massey(RT)	79 -	59.5 -	26 +	38 +	2.4 +	2	8 +	2	10.6 +	BE	AL
Average	91	59.9	25	33	0.7	2	2	2	9.2		
C.V.	8	0.8	3	4	---	---	---	---	7.5		
LSD (0.05)	3	0.2	1	1	0.6	1	1	1	0.7		

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] Seedlings of all lines were tested for resistance to five biotypes of Hessian Fly, including B, C, D, E, and L, over two years. Letters in column indicate varietal resistance to specified biotype(s). Lines lacking letters were susceptible to all biotypes.
[f] A = Awned, AL = Awnless or short awns.
[g] The number in parentheses below column headings indicates the number of locations on which data are based.
[h] A plus or minus sign indicates a performance significantly above or below the test average.

Table 20. Two-year average summary of performance of all entries in the Virginia Tech Wheat Tests, 2005 and 2006 harvests.

Line[a,b]	Yield (Bu/a) (16)[e]		Test Weight (Lb/bu) (16)		Date Headed (Mar31+) (8)		Height (In) (8)		Lodging (0.2-10)[c] (9)		Powdery Mildew (0-9)[d] (6)		Leaf Rust (0-9)[d] (6)		Barley Yellow Dwarf Virus (0-9)[d] (5)		Stripe Rust (0-9)[d] (2)		Stripe Rust Reaction Type (2)	Early Height (In) (1)		Hessian Fly Resistance (Biotypes)[f]
VA01W-205	89	+[g]	60.3	+	31		30	-	0.5		0	-	0	-	2	-	1	-	MR	9.8	+	---
SS-MPV 57	89	+	59.0	-	33	+	36	+	0.3		1	+	4	+	3		4	+	S	9.3		---
VA03W-412	89	+	60.3	+	31		33		0.2	-	0	-	3	+	3		1	-	MR	9.4		E
Pioneer 26R24	88	+	59.7		31		35	+	0.5		1	+	2		2	-	5	+	S	9.1		---
SS 560	88	+	59.4	-	32	+	34	+	0.3		1	+	3	+	3		4	+	S	8.6		---
VA02W-398	88	+	58.8	-	30	-	33		0.8	+	0	-	0	-	4	+	2	-	MS	9.8	+	---
VA03W-409	88	+	58.8	-	34	+	33		0.2	-	0	-	1	-	2	-	6	+	S	8.4	-	---
USG 3209	87	+	59.3	-	31		31	-	0.7		1	+	5	+	2	-	2	-	MS	9.7		E
SS 550	87	+	59.3	-	32	+	33		0.8	+	0	-	5	+	3		7	+	S	8.8		CDE
VA03W-436	87	+	59.3	-	33	+	29	-	0.3		0	-	1	-	3		3		S	8.4	-	---
SS 8404	86	+	60.3	+	32	+	31	-	0.3		1	+	2		2	-	4	+	MS	9.5		BE
SS 520	86	+	59.1	-	29	-	35	+	0.6		0	-	1	-	3		7	+	S	9.7		BCE
Featherstone 176	86	+	59.4	-	29	-	35	+	1.1	+	0	-	3	+	2	-	1	-	R	9.8	+	---
VA02W-555	86	+	58.9	-	30	-	31	-	0.3		0	-	4	+	2	-	1	-	R	9.8	+	---
VA02W-713	86	+	60.4	+	29	-	35	+	0.6		0	-	4	+	2	-	2	-	MS	10.2	+	C
VA03W-434	86	+	59.3	-	33	+	30	-	0.3		0	-	1	-	3		3		S	8.5		C
V9510	86	+	59.5		32	+	34	+	0.6		1	+	4	+	3		5	+	S	9.3		---
Pioneer 26R15	85	+	59.1	-	32	+	35	+	0.2	-	0	-	1	-	2	-	1	-	MS	8.9		E
Sisson	85	+	59.7		30	-	32	-	0.7		0	-	7	+	3		6	+	S	9.9	+	---
USG 3706	85	+	60.0	+	31		32	-	0.5		0	-	1	-	2	-	1	-	R	8.6		---

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] A = Awned, AL = Awnless or short awns.

[f] Seedlings of all lines were tested for resistance to five biotypes of Hessian Fly, including B, C, D, E, and L, over two years. Letters in column indicate varietal resistance to specified biotype(s). Lines lacking letters were susceptible to all biotypes.

[g] The number in parentheses below column headings indicates the number of locations on which data are based.

[h] A plus or minus sign indicates a performance significantly above or below the test average.

Table 20. Two-year average summary of performance of all entries in the Virginia Tech Wheat Tests, 2005 and 2006 harvests. (cont.)

Line[a,b]	Yield (Bu/a) (16)[e]	Test Weight (Lb/bu) (16)	Date Headed (Mar31+) (8)	Height (In) (8)	Lodging (0.2-10)[c] (9)	Powdery Mildew (0-9)[d] (6)	Leaf Rust (0-9)[d] (6)	Barley Yellow Dwarf Virus (0-9)[d] (5)	Stripe Rust (0-9)[d] (2)	Stripe Rust Reaction Type (2)	Early Height (In) (1)	Hessian Fly Resistance (Biotypes)[f]
VA02W-124	85 +	59.2 -	32 +	35 +	0.8 +	0 -	1 -	2 -	1 -	MS	9.3	---
VA03W-235	85 +	59.6	34 +	35 +	0.7	1 +	2	2 -	1 -	I	9.1	E
Dominion	84	59.8	32 +	31 -	0.4	0 -	2	3	1 -	MR	8.4 -	---
Pioneer 26R31	84	59.2 -	30 -	31 -	0.2 -	0 -	1 -	4 +	5 +	MS	9.2	BE
Tribute	84	60.9 +	31	32 -	0.6	0 -	1 -	2 -	4 +	S	7.3 -	C
VA03W-453	84	59.6	32 +	34 +	0.6	0 -	0 -	2 -	2 -	MS	8.8	---
Renwood 3260	83	60.0 +	30 -	35 +	1.0 +	0 -	2	2 -	4 +	S	9.1	CE
SS 8302	83	59.9	32 +	35 +	0.2 -	2 +	3 +	3	1 -	R	9.9 +	C
Chesapeake	83	60.2 +	32 +	33	0.6	0 -	3 +	3	6 +	S	9.6	---
VA02W-370	83	60.3 +	28 -	31 -	0.2 -	1 +	2	2 -	1 -	R	9.9 +	---
NC00-15332	82	58.7 -	33 +	36 +	0.2 -	0 -	2	2 -	1 -	I	8.8	---
V9412	82	59.9	32 +	34 +	0.5	0 -	2	3	2 -	MS	8.4 -	---
VA02W-513	82	60.1 +	31	31 -	0.2 -	0 -	1 -	3	2 -	I	9.1	---
VA01W-243	82	59.7	31	33	1.1 +	1 +	1 -	3	1 -	MR	9.9 +	---
Coker 9553	82	60.0 +	29 -	34 +	0.3	0 -	2	3	1 -	R	9.8 +	---
Featherstone 520	81 -	60.3 +	31	34 +	1.5 +	0 -	3 +	3	3	S	10.3 +	---
Coker 9436	81 -	58.1 -	35 +	32 -	0.6	1 +	1 -	3	3	S	7.7 -	---
SS 8309	81 -	59.5	33 +	35 +	0.3	1 +	3 +	2 -	4 +	MS	7.8 -	---
VA03W-211	81 -	60.4 +	28 -	32 -	0.3	0 -	1 -	4 +	1 -	MR	9.4	BE
Coker 9184	80 -	60.4 +	33 +	33	0.3	1 +	1 -	3	3	S	8.5	---

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] A = Awned, AL = Awnless or short awns.
[f] Seedlings of all lines were tested for resistance to five biotypes of Hessian Fly, including B, C, D, E, and L, over two years. Letters in column indicate varietal resistance to specified biotype(s). Lines lacking letters were susceptible to all biotypes.
[g] The number in parentheses below column headings indicates the number of locations on which data are based.
[h] A plus or minus sign indicates a performance significantly above or below the test average.

Table 20. Two-year average summary of performance of all entries in the Virginia Tech Wheat Tests, 2005 and 2006 harvests. (cont.)

Line[a,b]	Yield (Bu/a) (16)[e]		Test Weight (Lb/bu) (16)		Date Headed (Mar31+) (8)		Height (In) (8)		Lodging (0.2-10)[c] (9)		Powdery Mildew (0-9)[d] (6)		Leaf Rust (0-9)[d] (6)		Barley Yellow Dwarf Virus (0-9)[d] (5)		Stripe Rust (0-9)[d] (2)		Stripe Rust Reaction Type (2)	Early Height (In) (1)		Hessian Fly Resistance (Biotypes)[f]
Pioneer 26R12	80	-	60.1	+	33	+	34	+	0.2	-	1	+	2		2	-	4	+	MS	8.9		BCDE
Choptank	79	-	59.5		31		30	-	0.3		0	-	1	-	4	+	3		S	9.5		---
USG 3342	78	-	59.1	-	30	-	31	-	0.2	-	0	-	1	-	4	+	4	+	S	9.8	+	BE
Coker 9511	78	-	60.4	+	29	-	34	+	0.5		1	+	1	-	2	-	3		S	8.1	-	BCDE
McCormick	78	-	60.7	+	32	+	31	-	0.2	-	0	-	5	+	2	-	1	-	MR	8.8		BC
USG 3137	74	-	59.2	-	32	+	37	+	0.8	+	2	+	2		3		2	-	S	8.6		---
Massey	71	-	59.4	-	32	+	38	+	1.7	+	1	+	7	+	3		4	+	S	10.6	+	---
Average	83		59.7		31		33		0.5		1		2		3		3			9.1		
C.V.	8		1.4		3		4		---		---		---		---		---			7.7		
LSD (0.05)	2		0.3		1		1		0.3		0		1		1		1			0.7		

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] A = Awned, AL = Awnless or short awns.
[f] Seedlings of all lines were tested for resistance to five biotypes of Hessian Fly, including B, C, D, E, and L, over two years. Letters in column indicate varietal resistance to specified biotype(s). Lines lacking letters were susceptible to all biotypes.
[g] The number in parentheses below column headings indicates the number of locations on which data are based.
[h] A plus or minus sign indicates a performance significantly above or below the test average.

Table 21. Three-year average summary of performance of all entries in the Virginia Tech Wheat Tests, 2004, 2005, and 2006 harvests.

Line[a,b]	Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Mar31+)	Height (In)	Lodging (0.2-10)[c]	Powdery Mildew (0-9)[d]	Leaf Rust (0-9)[d]	Barley Yellow Dwarf Virus (0-9)[d]	Stripe Rust (0-9)[d]	Stripe Rust Reaction Type[e]	Early Height (In)
	(24)[f]	(24)	(12)	(12)	(13)	(7)	(7)	(9)	(2)	(2)	(1)
SS-MPV 57	84 +[g]	58.3 -	33 +	36 +	0.5	1 +	3 +	2	4 +	S	1.7
USG 3209	83 +	58.3 -	31	32 -	0.8	1 +	5 +	2	2 -	MS	1.8 +
VA01W-205	82 +	59.0 +	31	30 -	0.6	1 +	0 -	2	1 -	MR	1.8 +
Pioneer 26R24	82 +	58.5	30 -	35 +	0.8	1 +	2	2	5 +	S	1.7
VA02W-398	82 +	57.5 -	30 -	33	0.7	0 -	0 -	3 +	2 -	MS	1.8 +
SS 550	81 +	58.3 -	31	33	0.8	0 -	5 +	2	7 +	S	1.6 -
SS 560	81 +	58.5	32 +	33	0.5	1 +	3 +	2	4 +	S	1.6 -
Featherstone 176	81 +	58.2 -	29 -	35 +	1.1 +	0 -	3 +	2	1 -	R	1.8 +
VA02W-555	81 +	57.9 -	30 -	31 -	0.3 -	0 -	3 +	1 -	1 -	R	1.8 +
Pioneer 26R15	80 +	57.7 -	32 +	34 +	0.3 -	0 -	1 -	2	1 -	MS	1.6 -
Pioneer 26R31	79	58.2 -	31	31 -	0.4	0 -	1 -	3 +	5 +	MS	1.7
Sisson	79	58.5	30 -	32 -	0.8	0 -	6 +	2	6 +	S	1.8 +
SS 520	79	57.8 -	29 -	35 +	0.8	0 -	1 -	2	7 +	S	1.8 +
Chesapeake	79	59.3 +	31	33	0.6	0 -	3 +	2	6 +	S	1.8 +
VA02W-124	79	58.3 -	32 +	35 +	0.9 +	0 -	1 -	2	1 -	MS	1.7
Dominion	78	58.9 +	32 +	31 -	0.5	0 -	2	2	1 -	MR	1.5 -
SS 8302	78	59.0 +	32 +	35 +	0.2 -	2 +	2	2	1 -	R	1.8 +
Tribute	78	60.0 +	31	32 -	0.6	0 -	1 -	2	4 +	S	1.3 -
VA02W-513	78	59.3 +	31	31 -	0.2 -	0 -	1 -	2	2 -	I	1.6 -
V9412	77	59.2 +	31	34 +	0.5	1 +	2	2	2 -	MS	1.5 -
Renwood 3260	77	59.3 +	30 -	35 +	1.0 +	0 -	1 -	2	4 +	S	1.6 -

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] Stripe rust reaction type indicators are as follows: R=resistant, MR=moderately resistant, I=intermediate, S=susceptible, and MS=moderately susceptible.

[f] The number in parentheses below column headings indicates the number of locations on which data are based.

[g] A plus or minus sign indicates a performance significantly above or below the test average.

Table 21. Three-year average summary of performance of all entries in the Virginia Tech Wheat Tests, 2004, 2005, and 2006 harvests. (cont.)

Line[a,b]	Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Mar31+)	Height (In)	Lodging (0.2-10)[c]	Powdery Mildew (0-9)[d]	Leaf Rust (0-9)[d]	Barley Yellow Dwarf Virus (0-9)[d]	Stripe Rust (0-9)[d]	Stripe Rust Reaction Type[e]	Early Height (In)
	(24)[f]	(24)	(12)	(12)	(13)	(7)	(7)	(9)	(2)	(2)	(1)
USG 3706	77	58.8 +	31	31 -	0.4	0 -	1 -	2	1 -	R	1.6 -
VA02W-370	77	59.2 +	28 -	31 -	0.3 -	1 +	2	2	1 -	R	1.8 +
Featherstone 520	76 -	59.3 +	31	34 +	1.3 +	0 -	3 +	2	3	S	1.9 +
NC00-15332	76 -	57.8 -	33 +	36 +	0.4	0 -	1 -	2	1 -	I	1.6 -
Coker 9436	76 -	57.1 -	35 +	32 -	0.8	1 +	1 -	2	3	S	1.4 -
USG 3342	75 -	57.9 -	30 -	30 -	0.2 -	0 -	1 -	3 +	4 +	S	1.8 +
Coker 9184	75 -	60.0 +	33 +	33	0.3 -	1 +	1 -	2	3	S	1.5 -
Pioneer 26R12	75 -	59.4 +	32 +	34 +	0.5	1 +	2	2	4 +	MS	1.6 -
SS 8309	75 -	58.4 -	33 +	35 +	0.3 -	1 +	2	2	4 +	MS	1.4 -
McCormick	75 -	59.7 +	31	32 -	0.6	0 -	5 +	2	1 -	MR	1.6 -
Choptank	74 -	58.4 -	31	30 -	0.3 -	0 -	1 -	3 +	3	S	1.7
Massey	68 -	58.6	32 +	39 +	1.8 +	1 +	7 +	3 +	4 +	S	1.9 +
Average	78	58.6	31	33	0.6	0.5	2	2	3		1.7
C.V.	8	1.4	---	---	---	---	---	---	---		18.3
LSD (0.05)	2	0.2	0.4	0.5	0.3	0.2	0.5	0.4	1		0.1

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] Stripe rust reaction type indicators are as follows: R=resistant, MR=moderately resistant, I=intermediate, S=susceptible, and MS=moderately susceptible.
[f] The number in parentheses below column headings indicates the number of locations on which data are based.
[g] A plus or minus sign indicates a performance significantly above or below the test average.

Table 22. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Virginia AREC, Warsaw, Va., 2006 harvest.

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Leaf Rust (0-9)[d]		Early Height (In)	
VA04W-227(RT)	116	+[e]	61.8		22	+	30		2.2		6	+	10.0	
VA04W-306(RT)	116	+	61.3		20	-	30		2.0		3	+	10.5	+
Pioneer 26R15(D)	112	+	60.7	-	24	+	30		0.2	-	1	-	9.1	
SS-MPV 57(RT)	111	+	60.5	-	23	+	31	+	0.4	-	6	+	10.0	
VA04W-259(RT)	111	+	61.4		23	+	29	-	0.2	-	1	-	10.4	
VA02W-398(RT)	110	+	60.1	-	19	-	30		3.4	+	1	-	10.4	
VA03W-110(RT)	110	+	60.8	-	21		31	+	0.5		1	-	10.5	+
USG 3665(DE)	110	+	60.5	-	22	+	30		0.7		1	-	8.6	
SS 560(RT)	109	+	61.3		21		30		0.2	-	2		9.0	
V9510(DE)	109	+	61.1		22	+	31	+	0.2	-	4	+	9.3	
Pioneer 26R24(D)	108	+	61.7		20	-	31	+	0.2	-	2		9.1	
VA03W-412(RT)	108	+	62.5	+	20	-	30		0.2	-	3	+	9.8	
Tribute(DE)	107	+	63.4	+	22	+	29	-	2.8	+	1	-	7.1	-
VA03W-235(RT)	107	+	61.9		23	+	32	+	2.7	+	2		9.5	
VA03W-409(RT)	107	+	59.6	-	24	+	28	-	0.2	-	1	-	8.1	-
VA00W-38(RT)	106	+	60.0	-	22	+	29	-	1.1		2		9.6	
Dominion(RT)	106	+	61.6		21		27	-	1.5		2		9.0	
SS 550(RT)	106	+	60.3	-	21		29	-	3.2	+	6	+	8.9	
GA-951395-3E25	106	+	61.8		20	-	29	-	0.4	-	1	-	10.6	+
VA03W-203(RT)	105		61.6		20	-	29	-	1.4		1	-	10.1	
SS 8404(RT)	104		63.4	+	22	+	28	-	0.2	-	3	+	10.0	
Chesapeake(RT)	104		62.2	+	20	-	29	-	2.4	+	2		10.0	
VA03W-456(RT)	104		62.1	+	25	+	31	+	1.3		1	-	7.6	-
VA04W-86(RT)	104		61.6		19	-	29	-	2.4	+	5	+	10.6	+
VA01W-205(RT)	103		62.4	+	19	-	27	-	2.8	+	1	-	9.9	
SS 8309(RT)	103		61.5		24	+	31	+	0.4	-	3	+	7.4	-
Sisson(RT)	103		61.0	-	20	-	29	-	3.4	+	8	+	10.1	
Featherstone 176(RT)	103		61.9		19	-	30		1.9		4	+	9.8	
VA03W-453(RT)	103		61.1		20	-	28	-	1.7		1	-	9.0	
MSU Line E1007	103		61.2		24	+	33	+	0.2	-	5	+	9.4	
Tribute-USG 3592 blend	103		62.7	+	23	+	31	+	1.9		1	-	8.8	
SS 8302(RT)	102		61.9		23	+	31	+	0.2	-	2		10.3	
VA02W-555(RT)	102		60.3	-	20	-	28	-	0.6		3	+	10.3	
VA03W-436(RT)	102		61.0	-	23	+	25	-	0.8		1	-	8.1	-
VA04W-439(RT)	102		63.1	+	20	-	30		0.2	-	5	+	9.9	

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] A plus or minus sign indicates a performance significantly above or below the test average.

Table 22. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Virginia AREC, Warsaw, Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Leaf Rust (0-9)[d]		Early Height (In)	
95047-6-3-18	102		60.7	-	21		32	+	1.7		3	+	9.0	
USG 3592(DE)	102		61.6		22	+	32	+	0.4	-	1	-	8.9	
VA03W-204(RT)	101		62.3	+	20	-	32	+	1.9		1	-	11.4	+
M01-4377(D)	101		62.5	+	24	+	32	+	1.6		2		6.8	-
VA02W-124(RT)	100		60.5	-	21		31	+	2.3		1	-	9.6	
VA03W-411(RT)	100		61.1		21		32	+	1.4		1	-	10.9	+
USG 3910(DE)	100		61.5		21		28	-	2.4	+	1	-	8.0	-
VA03W-434(RT)	99		60.9	-	23	+	24	-	1.3		1	-	8.1	-
VA03W-435(RT)	99		60.7	-	23	+	24	-	1.1		2		7.9	-
VA04W-90(RT)	99		61.9		22	+	32	+	0.9		3	+	9.9	
VA04W-563(RT)	99		62.8	+	19	-	32	+	2.5	+	2		10.5	+
GA-951395-3A31	99		61.8		19	-	29	-	0.4	-	1	-	10.4	
Panola(D)	99		59.7	-	20	-	30		0.2	-	4	+	9.4	
Coker 9436(D)	98		59.6	-	26	+	28	-	2.6	+	1	-	7.6	-
Pioneer 26R31	98		60.2	-	21		26	-	0.2	-	1	-	9.4	
VA04W-264(RT)	98		61.1		23	+	30		1.5		2		10.1	
USG 3342(DE)	97		60.5	-	19	-	27	-	0.2	-	1	-	10.6	+
SS 520(RT)	97		61.1		19	-	31	+	2.4	+	1	-	9.9	
McCormick(RT)	97		63.1	+	21		28	-	0.2	-	7	+	9.0	
VA02W-513(RT)	97		62.1	+	20	-	28	-	0.2	-	1	-	8.8	
Tribute-Neuse blend	97		62.7	+	23	+	30		2.1		1	-	9.0	
Featherstone 520(RT)	96		62.4	+	19	-	32	+	2.3		3	+	10.9	+
USG 3209(DE)	96		61.4		21		28	-	2.9	+	7	+	10.1	
VA02W-713(RT)	96		63.0	+	19	-	30		2.4	+	4	+	11.0	+
VA03W-310(RT)	96		59.7	-	19	-	28	-	2.6	+	2		9.8	
B990133(D)	96		61.4		19	-	28	-	2.7	+	1	-	9.4	
Choptank(RT)	95		61.8		20	-	26	-	0.2	-	2		9.9	
VA01W-243(RT)	95		60.7	-	20	-	29	-	3.1	+	1	-	10.3	
VA03W-211(RT)	95		62.3	+	18	-	28	-	0.4	-	1	-	9.8	
NC00-15332(R)	94	-	60.3	-	23	+	32	+	0.2	-	3	+	8.9	
V9412(DE)	94	-	61.3		21		29	-	2.2		2		8.8	
Coker 9511(D)	94	-	62.0	+	20	-	30		2.0		1	-	8.5	-
USG 3706(DE)	94	-	62.4	+	20	-	27	-	2.5	+	1	-	9.1	
95053-1A-11-6	94	-	60.3	-	23	+	32	+	3.3	+	2		8.9	
Neuse-USG 3592 blend	94	-	61.7		23	+	32	+	0.8		1	-	9.4	

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] A plus or minus sign indicates a performance significantly above or below the test average.

Table 22. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Virginia AREC, Warsaw, Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Leaf Rust (0-9)[d]		Early Height (In)	
Pioneer 26R12(D)	93	-	62.0	+	23	+	31	+	0.2	-	2		9.1	
Coker 9553(D)	93	-	61.7		18	-	31	+	0.2	-	3	+	10.1	
Coker 9184(D)	92	-	62.7	+	24	+	29	-	1.1		1	-	8.5	-
VA02W-370(RT)	92	-	62.6	+	18	-	27	-	0.6		3	+	10.6	+
Renwood 3260(DE)	91	-	61.2		19	-	32	+	2.9	+	1	-	9.4	
GA-96229-3A41	90	-	61.1		21		31	+	1.2		1	-	10.9	+
USG 3137(DE)	89	-	61.1		23	+	34	+	2.6	+	1	-	8.6	
Pioneer XW04C	89	-	63.1	+	19	-	31	+	0.2	-	1	-	10.6	+
Massey(RT)	88	-	61.0	-	22	+	34	+	2.7	+	9	+	11.0	+
GA-951216-2E26	88	-	61.5		19	-	31	+	0.2	-	1	-	10.4	
GA-96229-3E39	85	-	61.8		21		31	+	1.0		1	-	9.9	
GA-951079-2E31	83	-	62.1	+	19	-	31	+	3.2	+	1	-	10.9	+
Average	100		61.5		21		30		1.4		2		9.5	
C.V.	5		0.6		3		6		---		---		7.5	
LSD (0.05)	6		0.5		1		1		1.0		1		1.0	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] A plus or minus sign indicates a performance significantly above or below the test average.

Table 23. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Shore AREC, Painter, Va., 2006 harvest.

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Powdery Mildew (0-9)[c]		Leaf Rust (0-9)[c]	
VA04W-227(RT)	106	+[d]	60.7		2		3	+
VA02W-398(RT)	104	+	59.6	-	0	-	0	-
VA04W-439(RT)	103	+	62.0	+	0	-	3	+
SS-MPV 57(RT)	102	+	60.1		4	+	2	+
VA03W-110(RT)	102	+	60.4		3	+	0	-
VA04W-259(RT)	102	+	60.9		1	-	0	-
SS 560(RT)	100		60.4		3	+	3	+
VA03W-412(RT)	100		61.9	+	2		1	
VA03W-310(RT)	100		59.0	-	1	-	0	-
VA03W-411(RT)	100		60.6		0	-	0	-
VA04W-306(RT)	100		60.3		0	-	1	
VA03W-203(RT)	99		60.9		1	-	1	
USG 3665(DE)	99		61.1		2		0	-
Dominion(RT)	98		60.4		0	-	1	
Featherstone 176(RT)	98		58.4	-	0	-	3	+
VA03W-434(RT)	98		59.7	-	0	-	0	-
VA03W-435(RT)	98		59.6	-	0	-	0	-
VA01W-205(RT)	97		61.9	+	2		0	-
Pioneer 26R12(D)	97		61.0		2		1	
SS 8404(RT)	97		62.2	+	3	+	1	
VA03W-409(RT)	97		59.8		0	-	0	-
VA03W-436(RT)	97		59.7	-	0	-	1	
VA04W-264(RT)	97		60.0		0	-	0	-
Featherstone 520(RT)	96		62.2	+	1	-	1	
Tribute(DE)	96		62.1	+	0	-	0	-
Tribute-USG 3592 blend	96		61.7	+	2		0	-
V9510(DE)	96		59.0	-	3	+	3	+
Pioneer 26R31	95		58.9	-	0	-	0	-
SS 8302(RT)	95		61.4		5	+	1	
Pioneer 26R24(D)	95		60.6		2		0	-
VA02W-713(RT)	95		62.3	+	0	-	2	+
VA03W-204(RT)	95		61.1		0	-	0	-
VA00W-38(RT)	94		59.8		1	-	1	
SS 8309(RT)	94		60.0		2		0	-
VA03W-453(RT)	94		60.8		1	-	0	-
VA04W-86(RT)	94		60.4		1	-	2	+

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[d] A plus or minus sign indicates a performance significantly above or below the test average.

Table 23. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Shore AREC, Painter, Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)	Test Weight (Lb/bu)		Powdery Mildew (0-9)[c]		Leaf Rust (0-9)[c]	
GA-951395-3A31	94	60.8		4	+	0	-
SS 520(RT)	93	59.8		0	-	0	-
VA02W-513(RT)	93	61.7	+	1	-	0	-
USG 3209(DE)	92	60.2		2		3	+
NC00-15332(R)	92	58.2	-	0	-	1	
SS 550(RT)	92	60.3		2		3	+
VA02W-370(RT)	92	61.7	+	2		0	-
VA04W-90(RT)	92	60.8		1	-	2	+
VA04W-563(RT)	92	61.0		5	+	2	+
95047-6-3-18	92	58.0	-	3	+	1	
95053-1A-11-6	92	59.3	-	0	-	1	
Coker 9553(D)	92	61.3		2		2	+
USG 3342(DE)	91	60.6		0	-	1	
Pioneer 26R15(D)	91	59.7	-	2		0	-
Chesapeake(RT)	91	61.3		0	-	2	+
VA02W-124(RT)	91	60.3		1	-	0	-
USG 3592(DE)	91	60.4		3	+	0	-
USG 3910(DE)	91	61.4		2		1	
Panola(D)	91	58.9	-	1	-	2	+
Coker 9184(D)	90	62.6	+	3	+	0	-
Renwood 3260(DE)	90	61.4		0	-	1	
GA-96229-3A41	90	61.4		0	-	0	-
Neuse-USG 3592 blend	90	61.1		2		0	-
V9412(DE)	89	61.2		2		1	
USG 3706(DE)	89	61.2		1	-	1	
VA03W-211(RT)	89	62.1	+	2		0	-
Pioneer XW04C	89	62.8	+	1	-	0	-
Choptank(RT)	88	61.2		0	-	1	
Coker 9436(D)	88	57.9	-	3	+	0	-
Sisson(RT)	88	60.6		1	-	5	+
VA01W-243(RT)	88	60.6		4	+	0	-
VA03W-235(RT)	88	60.7		2		1	
GA-951395-3E25	88	60.4		4	+	0	-
Tribute-Neuse blend	88	61.7	+	0	-	0	-
GA-96229-3E39	87	62.0	+	0	-	0	-
Coker 9511(D)	86	61.8	+	3	+	0	-

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[d] A plus or minus sign indicates a performance significantly above or below the test average.

Table 23. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Shore AREC, Painter, Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Powdery Mildew (0-9)[c]		Leaf Rust (0-9)[c]	
McCormick(RT)	86		61.6		0	-	5	+
VA02W-555(RT)	86		59.7	-	1	-	2	+
VA03W-456(RT)	84		60.6		0	-	0	-
MSU Line E1007	84		60.1		3	+	4	+
GA-951216-2E26	83	-	61.6		5	+	0	-
GA-951079-2E31	82	-	60.7		1	-	0	-
B990133(D)	82	-	61.4		0	-	0	-
M01-4377(D)	79	-	60.6		6	+	2	+
USG 3137(DE)	78	-	60.1		5	+	0	-
Massey(RT)	74	-	60.1		2		5	+
Average	92		60.7		2		1	
C.V.	7		1.1		---		---	
LSD (0.05)	9		1.0		1		1	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[d] A plus or minus sign indicates a performance significantly above or below the test average.

Table 24. Summary of performance of entries in the Virginia Tech Wheat Test, Northern Piedmont AREC, Orange, Va., 2006 harvest.

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]	
VA03W-110(RT)	122	+[d]	62.0		24	+	39		0.2	
VA04W-306(RT)	117	+	61.5		21	-	39		0.2	
VA03W-310(RT)	117	+	60.2	-	21	-	39		0.8	
VA03W-412(RT)	113	+	61.9		22	-	39		0.5	
Featherstone 520(RT)	112	+	62.5	+	23		41	+	3.0	+
Coker 9436(D)	111	+	60.3	-	26	+	39		1.5	+
VA01W-205(RT)	110	+	62.6	+	23		35	-	0.2	
SS 550(RT)	110	+	60.8		23		40		0.8	
VA00W-38(RT)	110	+	60.1	-	23		40		0.2	
VA02W-713(RT)	109		62.8	+	21	-	42	+	0.5	
VA03W-453(RT)	109		62.0		23		39		0.2	
VA04W-439(RT)	108		62.6	+	23		41	+	0.2	
Chesapeake(RT)	107		62.7	+	23		38		0.2	
Pioneer 26R24(D)	107		61.2		23		42	+	1.6	+
Pioneer XW04C	106		63.0	+	22	-	40		0.2	
VA04W-86(RT)	106		61.8		21	-	39		0.2	
VA04W-259(RT)	105		60.7		25	+	36	-	0.2	
NC00-15332(R)	104		61.2		24	+	43	+	0.2	
VA03W-203(RT)	104		60.9		23		39		0.7	
VA03W-204(RT)	103		62.5	+	23		40		0.4	
Sisson(RT)	103		62.2	+	21	-	37	-	0.3	
SS 520(RT)	103		61.1		21	-	41	+	0.2	
Featherstone 176(RT)	103		61.0		21	-	42	+	0.5	
VA04W-227(RT)	102		60.7		24	+	40		0.4	
VA03W-235(RT)	102		59.1	-	25	+	41	+	0.8	
USG 3209(DE)	101		60.4	-	24	+	37	-	1.2	
SS-MPV 57(RT)	101		60.2	-	25	+	44	+	0.8	
VA02W-555(RT)	101		59.0	-	23		36	-	0.2	
Coker 9553(D)	100		63.1	+	21	-	43	+	0.2	
VA02W-124(RT)	100		60.1	-	25	+	41	+	0.4	
USG 3665(DE)	99		61.8		23		41	+	0.2	
VA02W-398(RT)	99		60.4	-	23		39		0.2	
95047-6-3-18	99		58.8	-	25	+	43	+	0.2	
Tribute(DE)	98		62.7	+	23		37	-	0.5	
GA-951216-2E26	98		61.9		23		40		0.2	

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.

[d] A plus or minus sign indicates a performance significantly above or below the test average.

Table 24. Summary of performance of entries in the Virginia Tech Wheat Test, Northern Piedmont AREC, Orange, Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)	Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]	
Pioneer 26R31	98	61.1		23		35	-	0.2	
GA-951395-3A31	98	61.1		24	+	37	-	0.2	
SS 560(RT)	98	60.3	-	23		39		0.2	
VA03W-211(RT)	97	63.2	+	21	-	39		0.2	
Pioneer 26R12(D)	97	62.9	+	24	+	40		0.2	
VA03W-436(RT)	97	61.3		24	+	34	-	0.2	
GA-951395-3E25	97	61.0		24	+	37	-	0.2	
USG 3910(DE)	96	62.3	+	23		41	+	0.2	
Pioneer 26R15(D)	96	60.0	-	25	+	40		0.2	
VA02W-513(RT)	95	62.6	+	22	-	37	-	0.2	
M01-4377(D)	95	61.8		25	+	42	+	0.5	
USG 3342(DE)	95	61.7		22	-	37	-	0.2	
VA03W-409(RT)	95	59.1	-	24	+	37	-	0.2	
Renwood 3260(DE)	94	61.7		22	-	41	+	1.1	
VA04W-264(RT)	94	61.5		23		38		0.2	
USG 3592(DE)	94	61.4		24	+	43	+	1.0	
Tribute-Neuse blend	93	62.4	+	24	+	39		0.3	
USG 3706(DE)	93	61.3		23		36	-	0.2	
VA04W-90(RT)	93	61.3		24	+	41	+	0.2	
VA03W-434(RT)	93	61.1		24	+	34	-	0.2	
VA02W-370(RT)	92	62.9	+	21	-	37	-	0.2	
V9510(DE)	92	62.2	+	23		40		1.0	
B990133(D)	92	61.9		21	-	39		0.2	
Neuse-USG 3592 blend	92	61.3		25	+	42	+	0.5	
SS 8309(RT)	92	60.8		24	+	39		0.2	
VA03W-456(RT)	92	59.6	-	24	+	41	+	0.5	
Dominion(RT)	91	60.9		24	+	36	-	0.2	
VA03W-411(RT)	91	60.8		23		40		0.2	
GA-96229-3A41	91	60.8		24	+	40		0.2	
Massey(RT)	91	60.4	-	24	+	46	+	5.3	+
VA01W-243(RT)	90	61.8		23		39		1.6	+
SS 8302(RT)	90	61.0		24	+	42	+	0.2	
VA03W-435(RT)	89	61.0		24	+	34	-	0.2	
Panola(D)	89	61.0		22	-	41	+	0.2	
VA04W-563(RT)	88	61.7		21	-	41	+	0.2	

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.

[d] A plus or minus sign indicates a performance significantly above or below the test average.

Table 24. Summary of performance of entries in the Virginia Tech Wheat Test, Northern Piedmont AREC, Orange, Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]	
Tribute-USG 3592 blend	88		61.4		24	+	41	+	0.2	
MSU Line E1007	88		60.4	-	24	+	43	+	0.2	
95053-1A-11-6	87		59.8	-	25	+	42	+	2.4	+
SS 8404(RT)	86		61.7		25	+	37	-	0.8	
V9412(DE)	86		61.6		23		41	+	0.4	
GA-951079-2E31	85		63.2	+	21	-	41	+	1.1	
Choptank(RT)	85		61.3		22	-	34	-	0.2	
McCormick(RT)	84	-	63.0	+	24	+	36	-	0.2	
Coker 9184(D)	84	-	61.2		24	+	38		0.2	
USG 3137(DE)	84	-	60.5		23		43	+	0.3	
GA-96229-3E39	83	-	61.3		24	+	41	+	0.2	
Coker 9511(D)	81	-	62.4	+	23		40		0.2	
Average	97		61.3		23		39		0.5	
C.V.	10		1.1		3		4		---	
LSD (0.05)	13		0.9		1		2		1	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] A plus or minus sign indicates a performance significantly above or below the test average.

Table 25. Summary of performance of entries in the Virginia Tech Wheat Test, Kentland Farm, Blacksburg, Va., 2006 harvest.

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Leaf Rust (0-9)[d]		Barley Yellow Dwarf Virus (0-9)[d]	
VA04W-227(RT)	124	+[e]	59.7		34	+	34	+	0.8		0	-	1	-
SS 550(RT)	122	+	59.0	-	33		32		0.2		3	+	2	
VA03W-412(RT)	122	+	60.1		32	-	32		0.2		0	-	2	
VA03W-110(RT)	122	+	57.8	-	33		32		0.2		0	-	4	+
VA04W-439(RT)	121	+	59.2	-	33		34	+	0.2		0	-	2	
USG 3209(DE)	120	+	59.1	-	33		31	-	0.3		2	+	1	-
VA00W-38(RT)	119	+	58.9	-	34	+	33	+	0.2		0	-	1	-
VA03W-409(RT)	119	+	58.8	-	35	+	31	-	0.2		0	-	1	-
VA04W-306(RT)	118	+	59.5		33		32		0.2		0	-	1	-
SS 520(RT)	117		58.2	-	33		35	+	0.2		0	-	4	+
VA03W-203(RT)	117		59.7		32	-	31	-	0.4		0	-	2	
Featherstone 520(RT)	116		60.8	+	33		34	+	1.2	+	1	+	2	
SS-MPV 57(RT)	116		59.2	-	36	+	34	+	0.2		0	-	2	
VA02W-713(RT)	116		59.5		32	-	35	+	0.7		0	-	2	
VA03W-434(RT)	116		59.1	-	34	+	28	-	0.2		0	-	1	-
VA03W-310(RT)	116		57.5	-	32	-	32		0.4		0	-	3	+
V9510(DE)	116		58.7	-	32	-	33	+	1.5	+	0	-	3	+
SS 8404(RT)	115		61.5	+	35	+	29	-	0.2		1	+	2	
Sisson(RT)	115		59.0	-	32	-	30	-	0.6		0	-	2	
Chesapeake(RT)	115		59.9		33		31	-	0.2		0	-	3	+
Pioneer 26R24(D)	114		59.4		32	-	34	+	0.2		0	-	2	
Featherstone 176(RT)	114		59.6		33		34	+	0.2		0	-	2	
VA03W-211(RT)	113		60.5	+	32	-	32		0.3		0	-	4	+
VA03W-235(RT)	113		60.8	+	35	+	33	+	0.2		0	-	2	
VA03W-204(RT)	113		60.1		32	-	34	+	0.8		0	-	1	-
VA04W-264(RT)	113		59.1	-	34	+	35	+	1.4	+	0	-	1	-
Pioneer 26R15(D)	112		59.1	-	33		33	+	0.2		0	-	2	
VA02W-398(RT)	112		58.3	-	33		33	+	0.9		0	-	3	+
VA03W-436(RT)	112		59.2	-	35	+	28	-	0.2		0	-	1	-
VA04W-259(RT)	112		60.4	+	36	+	32		0.2		0	-	1	-
GA-951395-3E25	112		60.3	+	33		31	-	0.2		0	-	2	
MSU Line E1007	112		60.2	+	36	+	35	+	0.2		0	-	1	-
M01-4377(D)	112		61.4	+	36	+	34	+	0.2		0	-	1	-
VA01W-205(RT)	111		60.0		32	-	30	-	0.2		0	-	2	
SS 560(RT)	111		59.3		35	+	33	+	0.2		0	-	2	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] A plus or minus sign indicates a performance significantly above or below the test average.

Table 25. Summary of performance of entries in the Virginia Tech Wheat Test, Kentland Farm, Blacksburg, Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)	Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Leaf Rust (0-9)[d]		Barley Yellow Dwarf Virus (0-9)[d]	
VA02W-555(RT)	111	58.8	-	33		29	-	0.2		0	-	2	
Neuse-USG 3592 blend	111	60.8	+	35	+	36	+	0.4		1	+	2	
SS 8302(RT)	110	60.1		33		33	+	0.2		0	-	3	+
VA02W-370(RT)	110	59.9		32	-	30	-	0.2		0	-	2	
VA03W-453(RT)	110	58.5	-	33		33	+	0.2		0	-	2	
VA03W-456(RT)	110	59.7		36	+	33	+	0.2		0	-	1	-
GA-951079-2E31	110	60.1		32	-	33	+	0.4		0	-	4	+
Tribute-USG 3592 blend	110	60.5	+	34	+	36	+	0.7		0	-	1	-
VA03W-435(RT)	109	59.4		34	+	28	-	0.2		0	-	2	
VA04W-86(RT)	109	58.2	-	32	-	31	-	0.2		0	-	2	
USG 3592(DE)	109	59.5		34	+	36	+	0.9		0	-	2	
Dominion(RT)	108	59.7		34	+	32		0.2		0	-	1	-
USG 3137(DE)	108	58.9	-	33		37	+	1.2	+	0	-	1	-
VA02W-124(RT)	108	58.8	-	33		33	+	0.2		0	-	2	
VA04W-90(RT)	108	59.2	-	36	+	33	+	0.2		0	-	1	-
95047-6-3-18	108	59.6		34	+	34	+	0.6		0	-	1	-
GA-96229-3E39	108	60.8	+	34	+	35	+	0.2		0	-	3	+
Choptank(RT)	107	58.5	-	32	-	27	-	0.2		0	-	2	
Coker 9436(D)	107	57.7	-	39	+	31		0.2		0	-	2	
SS 8309(RT)	107	59.9		35	+	33	+	0.2		0	-	1	-
Tribute(DE)	107	62.0	+	33		32		0.2		0	-	1	-
VA01W-243(RT)	107	59.1	-	33		31	-	0.2		0	-	3	+
GA-951395-3A31	107	59.6		33		31	-	0.6		0	-	2	
USG 3665(DE)	107	59.6		32	-	33	+	0.2		0	-	2	
NC00-15332(R)	106	57.9	-	35	+	35	+	0.2		0	-	1	-
Pioneer 26R31	106	59.2	-	34	+	31	-	0.2		1	+	2	
VA02W-513(RT)	106	60.1		33		30	-	0.2		0	-	4	+
Coker 9553(D)	104	60.2	+	32	-	34	+	0.2		0	-	4	+
Pioneer 26R12(D)	103	60.6	+	33		33	+	0.2		0	-	1	-
VA04W-563(RT)	103	59.8		32	-	34	+	0.2		0	-	3	+
Tribute-Neuse blend	103	62.0	+	35	+	31	-	0.5		0	-	1	-
USG 3342(DE)	102	58.8	-	33		30	-	0.2		0	-	5	+
McCormick(RT)	102	61.4	+	33		30	-	0.2		5	+	2	
USG 3706(DE)	102	60.2	+	33		30	-	0.2		0	-	2	
Pioneer XW04C	102	61.9	+	32	-	32		0.2		0	-	3	+

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] A plus or minus sign indicates a performance significantly above or below the test average.

Table 25. Summary of performance of entries in the Virginia Tech Wheat Test, Kentland Farm, Blacksburg, Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Leaf Rust (0-9)[d]		Barley Yellow Dwarf Virus (0-9)[d]	
GA-951216-2E26	102		60.7	+	32	-	34	+	0.2		0	-	3	+
GA-96229-3A41	102		60.4	+	34	+	34	+	0.2		0	-	3	+
Panola(D)	102		58.2	-	32	-	33	+	0.2		0	-	2	
Coker 9184(D)	100	-	61.6	+	36	+	32		0.2		0	-	2	
VA03W-411(RT)	100	-	59.3		33		34	+	0.2		0	-	3	+
USG 3910(DE)	100	-	61.1	+	33		33	+	0.2		0	-	1	-
B990133(D)	100	-	59.4		32	-	31	-	0.2		0	-	4	+
V9412(DE)	99	-	61.2	+	33		34	+	0.2		0	-	1	-
95053-1A-11-6	99	-	59.8		35	+	36	+	1.3	+	1	+	1	-
Renwood 3260(DE)	95	-	60.9	+	32	-	33	+	0.2		0	-	3	+
Coker 9511(D)	92	-	60.7	+	32	-	34	+	0.2		0	-	2	
Massey(RT)	89	-	59.8		35	+	38	+	1.8	+	1	+	2	
Average	109		59.7		33		32		0.4		0		2	
C.V.	6		0.6		3		3		---		---		---	
LSD (0.05)	9		0.5		1		1		0.6		1		1	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] A plus or minus sign indicates a performance significantly above or below the test average.

Table 26. Summary of performance of entries in the Virginia Tech Wheat Test, Southern Piedmont AREC, Blackstone, Va., 2006 harvest.

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)	
VA04W-306(RT)	99	+[c]	64.2	+
VA04W-264(RT)	95	+	63.6	
VA04W-259(RT)	94	+	63.7	
Pioneer 26R12(D)	93	+	63.7	
SS 550(RT)	93	+	63.1	
VA02W-713(RT)	91		64.0	+
VA03W-412(RT)	90		63.9	+
GA-951395-3E25	90		63.5	
VA03W-110(RT)	90		63.0	
VA03W-203(RT)	89		63.6	
Sisson(RT)	89		63.1	
V9510(DE)	89		63.1	
VA04W-439(RT)	88		63.9	+
Chesapeake(RT)	88		63.6	
VA03W-456(RT)	88		63.6	
VA04W-86(RT)	88		62.8	
GA-951395-3A31	87		63.7	
SS 8404(RT)	87		63.4	
MSU Line E1007	86		62.8	
VA03W-409(RT)	86		61.9	-
VA04W-227(RT)	85		63.7	
Dominion(RT)	85		63.6	
USG 3910(DE)	85		63.3	
M01-4377(D)	85		63.2	
VA00W-38(RT)	85		63.1	
VA03W-436(RT)	85		63.0	
SS 8302(RT)	85		62.9	
VA03W-310(RT)	85		62.7	
SS-MPV 57(RT)	85		62.5	-
Pioneer 26R31	85		62.1	-
USG 3592(DE)	84		63.7	
VA03W-204(RT)	84		63.6	
VA03W-453(RT)	84		63.3	
VA03W-435(RT)	83		63.4	
V9412(DE)	83		62.7	
95047-6-3-18	83		62.7	
VA02W-398(RT)	83		62.6	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] A plus or minus sign indicates a performance significantly above or below the test average.

Table 26. Summary of performance of entries in the Virginia Tech Wheat Test, Southern Piedmont AREC, Blackstone, Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)	Test Weight (Lb/bu)	
USG 3665(DE)	83	62.4	-
Panola(D)	83	62.3	-
VA01W-205(RT)	82	63.7	
Pioneer 26R24(D)	82	63.7	
Tribute-USG 3592 blend	82	63.7	
Choptank(RT)	82	63.6	
VA03W-434(RT)	82	63.1	
Featherstone 176(RT)	82	62.7	
Pioneer 26R15(D)	82	62.1	-
Coker 9436(D)	82	61.4	-
VA04W-563(RT)	81	63.9	+
USG 3706(DE)	80	63.7	
NC00-15332(R)	80	62.1	-
VA02W-555(RT)	80	61.8	-
VA04W-90(RT)	79	63.4	
Neuse-USG 3592 blend	79	63.2	
VA03W-235(RT)	79	62.8	
McCormick(RT)	78	64.4	+
Featherstone 520(RT)	78	63.7	
SS 8309(RT)	78	62.9	
VA01W-243(RT)	78	62.9	
USG 3209(DE)	78	62.8	
95053-1A-11-6	77	62.6	
VA03W-411(RT)	76	63.3	
SS 560(RT)	76	62.9	
Tribute-Neuse blend	75	63.5	
Coker 9511(D)	75	63.0	
VA03W-211(RT)	75	63.0	
B990133(D)	75	63.0	
Tribute(DE)	74	64.0	+
VA02W-370(RT)	74	63.4	
VA02W-513(RT)	74	63.3	
VA02W-124(RT)	74	62.9	
Pioneer XW04C	72	64.0	+
USG 3342(DE)	72	62.7	
Renwood 3260(DE)	71	63.3	
SS 520(RT)	71	63.2	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] A plus or minus sign indicates a performance significantly above or below the test average.

Table 26. Summary of performance of entries in the Virginia Tech Wheat Test, Southern Piedmont AREC, Blackstone, Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)	
Coker 9184(D)	70	-	63.0	
Massey(RT)	70	-	62.0	-
Coker 9553(D)	69	-	63.2	
GA-951079-2E31	68	-	64.4	+
GA-96229-3E39	68	-	63.1	
GA-951216-2E26	67	-	63.8	
USG 3137(DE)	66	-	62.0	-
GA-96229-3A41	65	-	63.2	
Average	81		63.2	
C.V.	8		0.7	
LSD (0.05)	11		0.7	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] A plus or minus sign indicates a performance significantly above or below the test average.

Table 27. Summary of performance of entries in the Virginia Tech Wheat Test, planted no-till at Tidewater AREC, Holland, Va., 2006 harvest.

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)	
USG 3910(DE)	86	+[c]	57.7	
V9412(DE)	85	+	58.0	+
VA04W-227(RT)	85	+	58.2	+
VA04W-439(RT)	82	+	58.2	+
SS 8302(RT)	81		57.8	+
Pioneer 26R24(D)	81		58.1	+
VA04W-306(RT)	81		57.3	
SS 8309(RT)	80		57.7	
VA03W-436(RT)	80		56.8	-
USG 3592(DE)	80		57.7	
Pioneer 26R15(D)	79		56.5	-
VA04W-259(RT)	79		58.0	+
MSU Line E1007	79		56.9	-
Coker 9184(D)	78		59.0	+
NC00-15332(R)	78		54.9	-
VA02W-398(RT)	78		56.8	-
VA03W-110(RT)	78		56.8	-
USG 3209(DE)	77		57.7	
SS 550(RT)	77		57.7	
VA02W-713(RT)	77		58.7	+
VA03W-203(RT)	77		57.9	+
95047-6-3-18	77		56.3	-
Panola(D)	77		56.1	-
Tribute-USG 3592 blend	77		58.6	+
V9510(DE)	77		56.4	-
Coker 9436(D)	76		55.1	-
Chesapeake(RT)	76		58.3	+
VA02W-124(RT)	76		57.4	
VA02W-555(RT)	76		56.7	-
VA03W-435(RT)	76		56.8	-
USG 3665(DE)	76		57.6	
VA01W-205(RT)	75		58.0	+
Sisson(RT)	75		57.8	+
SS 560(RT)	75		57.1	-
VA01W-243(RT)	75		57.8	+
VA03W-409(RT)	75		56.5	-
VA04W-90(RT)	75		57.7	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] A plus or minus sign indicates a performance significantly above or below the test average.

Table 27. Summary of performance of entries in the Virginia Tech Wheat Test, planted no-till at Tidewater AREC, Holland, Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)	Test Weight (Lb/bu)	
VA04W-264(RT)	75	57.3	
GA-951395-3E25	75	57.3	
M01-4377(D)	75	58.3	+
VA00W-38(RT)	74	56.6	-
Coker 9511(D)	74	58.2	+
VA03W-310(RT)	74	55.6	-
95053-1A-11-6	74	56.5	-
Dominion(RT)	73	57.7	
Pioneer 26R12(D)	73	57.5	
Pioneer 26R31	73	56.7	-
Tribute(DE)	73	59.6	+
VA03W-204(RT)	73	58.0	+
VA04W-86(RT)	73	57.0	-
VA04W-563(RT)	73	58.5	+
Featherstone 520(RT)	72	57.9	+
USG 3137(DE)	72	57.1	-
SS 520(RT)	72	56.4	-
USG 3706(DE)	72	58.1	+
VA03W-434(RT)	72	56.8	-
SS 8404(RT)	71	57.7	
Featherstone 176(RT)	71	57.5	
VA02W-370(RT)	71	58.2	+
VA03W-235(RT)	71	58.5	+
VA03W-453(RT)	71	56.6	-
GA-951216-2E26	71	58.3	+
Massey(RT)	70	57.7	
Choptank(RT)	70	57.1	-
VA03W-412(RT)	70	58.7	+
GA-96229-3A41	70	57.4	
Tribute-Neuse blend	70	58.8	+
SS-MPV 57(RT)	69	56.4	-
GA-951395-3A31	69	57.6	
Neuse-USG 3592 blend	69	57.7	
USG 3342(DE)	68	56.5	-
Renwood 3260(DE)	68	58.2	+
GA-96229-3E39	68	57.9	+
Coker 9553(D)	68	57.5	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] A plus or minus sign indicates a performance significantly above or below the test average.

Table 27. Summary of performance of entries in the Virginia Tech Wheat Test, planted no-till at Tidewater AREC, Holland, Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)	
McCormick(RT)	67		59.0	+
VA02W-513(RT)	67		58.3	+
VA03W-411(RT)	67		56.9	-
B990133(D)	67		57.4	
VA03W-211(RT)	65	-	57.6	
VA03W-456(RT)	64	-	57.0	-
Pioneer XW04C	64	-	59.1	+
GA-951079-2E31	63	-	58.0	+
Average	74		57.5	
C.V.	8		0.4	
LSD (0.05)	8		0.3	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] A plus or minus sign indicates a performance significantly above or below the test average.

Table 28. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Virginia AREC, Warsaw, Va., 2006 harvest.

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Leaf Rust (0-9)[d]		Early Height (In)	
VA04W-227(RT)	100	+[e]	59.2		23	+	29		0.2		5	+	8.3	
GA-951395-3A31	97	+	60.7	+	21	-	28		0.2		1	-	10.5	+
SS 8309(RT)	96		59.9		25	+	33	+	0.2		6	+	8.1	
VA02W-713(RT)	95		62.2	+	21	-	32	+	0.2		5	+	9.4	
95047-6-3-18	95		57.9	-	24	+	33	+	0.3	+	4		9.4	
V9510(DE)	95		60.5	+	23	+	31	+	0.2		6	+	9.4	
Pioneer 26R24(D)	94		60.2		23	+	32	+	0.2		2		9.1	
VA04W-306(RT)	94		59.6		22		30		0.2		4		9.0	
VA04W-259(RT)	93		59.3		24	+	29		0.2		1	-	9.1	
VA02W-555(RT)	92		59.1		21	-	26	-	0.2		6	+	9.4	
VA04W-90(RT)	92		59.9		23	+	32	+	0.2		3		9.3	
VA03W-436(RT)	91		59.4		23	+	25	-	0.2		2		8.8	
VA03W-310(RT)	91		56.4	-	22		30		0.3	+	1	-	9.6	
VA03W-411(RT)	91		59.1		22		32	+	0.2		2		9.3	
Panola(D)	91		58.2	-	23	+	30		0.2		4		9.4	
VA00W-38(RT)	90		58.9	-	24	+	30		0.2		2		9.0	
Pioneer 26R15(D)	90		59.2		24	+	30		0.2		1	-	8.6	
SS 8302(RT)	90		60.1		24	+	32	+	0.2		5	+	9.6	
SS 550(RT)	90		59.7		23	+	28		0.4	+	6	+	8.8	
VA03W-409(RT)	90		58.3	-	24	+	29		0.2		1	-	8.6	
VA03W-434(RT)	90		59.4		24	+	25	-	0.2		1	-	8.9	
VA03W-110(RT)	90		59.1		24	+	30		0.2		1	-	9.1	
GA-951395-3E25	90		60.6	+	22		29		0.2		1	-	10.6	+
USG 3209(DE)	88		59.1		22		27	-	0.3	+	7	+	9.3	
Pioneer 26R31	88		59.5		23	+	26	-	0.3	+	1	-	9.0	
SS-MPV 57(RT)	88		58.9	-	24	+	30		0.2		5	+	8.6	
VA02W-398(RT)	88		58.1	-	20	-	27	-	0.3	+	1	-	9.1	
VA03W-235(RT)	88		60.6	+	24	+	31	+	0.2		4		8.8	
VA03W-453(RT)	88		59.4		23	+	29		0.3	+	1	-	8.5	
Tribute(DE)	87		62.4	+	22		28		0.3	+	1	-	7.5	-
Dominion(RT)	86		60.5	+	24	+	27	-	0.2		2		7.8	-
VA01W-205(RT)	86		60.6	+	21	-	26	-	0.2		1	-	9.6	
Renwood 3260(DE)	86		60.1		21	-	30		0.3	+	2		8.8	
SS 8404(RT)	86		61.7	+	24	+	27	-	0.2		2		9.0	

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages. A plus or minus sign indicates a performance significantly above or below the test average.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] A plus or minus sign indicates a performance significantly above or below the test average.

Table 28. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Virginia AREC, Warsaw, Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)	Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Leaf Rust (0-9)[d]		Early Height (In)	
Sisson(RT)	86	59.3		21	-	29		0.4	+	9	+	9.8	+
SS 520(RT)	86	58.5	-	20	-	31	+	0.2		2		9.5	
VA04W-264(RT)	86	59.4		22		30		0.3	+	2		9.6	
VA04W-439(RT)	86	61.5	+	22		29		0.2		7	+	8.5	
Tribute-USG 3592 blend	86	61.2	+	24	+	32	+	0.3	+	1	-	8.6	
Pioneer 26R12(D)	85	61.1	+	23	+	29		0.2		2		8.6	
McCormick(RT)	85	62.3	+	23	+	27	-	0.2		9	+	8.5	
Featherstone 176(RT)	85	59.0	-	21	-	30		0.2		4		9.8	+
VA04W-86(RT)	85	59.4		21	-	28		0.3	+	5	+	9.3	
MSU Line E1007	85	59.0	-	25	+	33	+	0.2		4		9.4	
USG 3592(DE)	85	59.7		23	+	32	+	0.5	+	1	-	9.6	
NC00-15332(R)	84	57.2	-	24	+	32	+	0.2		3		8.6	
USG 3137(DE)	84	60.2		24	+	35	+	0.3	+	3		8.5	
SS 560(RT)	84	58.9	-	24	+	29		0.2		4		8.1	
VA02W-513(RT)	84	60.3		21	-	27	-	0.2		2		9.4	
USG 3910(DE)	84	59.1		23	+	30		0.2		3		8.0	-
VA03W-456(RT)	83	60.0		25	+	31	+	0.2		1	-	7.5	-
95053-1A-11-6	83	57.5	-	24	+	33	+	0.4	+	3		9.4	
Chesapeake(RT)	82	60.7	+	23	+	29		0.2		5	+	9.3	
VA02W-370(RT)	82	61.4	+	19	-	27	-	0.2		2		9.1	
VA04W-563(RT)	82	61.2	+	21	-	31	+	0.3	+	3		9.1	
Tribute-Neuse blend	82	61.4	+	23	+	30		0.2		1	-	8.6	
Coker 9511(D)	81	59.0	-	22		29		0.2		1	-	7.6	-
VA01W-243(RT)	81	59.6		22		30		0.3	+	1	-	9.6	
VA03W-412(RT)	81	60.9	+	22		28		0.2		5	+	9.1	
GA-96229-3A41	81	60.1		25	+	33	+	0.2		1	-	8.5	
M01-4377(D)	81	61.3	+	25	+	32	+	0.2		3		6.8	-
USG 3706(DE)	80	60.2		23	+	26	-	0.3	+	2		8.1	
VA02W-124(RT)	80	58.1	-	23	+	30		0.4	+	1	-	9.0	
VA03W-203(RT)	80	59.6		21	-	26	-	0.2		2		9.5	
VA03W-204(RT)	80	60.2		21	-	30		0.2		1	-	9.8	+
Featherstone 520(RT)	79	61.0	+	22		30		0.4	+	4		9.8	+
Coker 9436(D)	79	56.0	-	28	+	29		0.3	+	1	-	7.8	-
VA03W-211(RT)	79	60.6	+	19	-	27	-	0.2		2		9.1	

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages. A plus or minus sign indicates a performance significantly above or below the test average.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] A plus or minus sign indicates a performance significantly above or below the test average.

Table 28. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Virginia AREC, Warsaw, Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Date Headed (Mar31+)		Height (In)		Lodging (0.2-10)[c]		Leaf Rust (0-9)[d]		Early Height (In)	
USG 3665(DE)	79		59.3		24	+	30		0.2		2		8.1	
Neuse-USG 3592 blend	79		60.1		24	+	32	+	0.2		1	-	9.1	
Coker 9184(D)	78		60.1		24	+	28		0.2		1	-	8.5	
V9412(DE)	78		58.7	-	24	+	29		0.3	+	2		8.1	
B990133(D)	78		59.0	-	19	-	27	-	0.2		1	-	8.6	
VA03W-435(RT)	77		58.7	-	24	+	25	-	0.2		1	-	8.0	-
GA-96229-3E39	77		60.8	+	24	+	33	+	0.2		1	-	9.0	
Choptank(RT)	75		60.5	+	22		24	-	0.2		2		9.1	
USG 3342(DE)	75		58.1	-	21	-	25	-	0.2		2		8.9	
Coker 9553(D)	74		60.4	+	20	-	28		0.2		2		9.4	
Pioneer XW04C	73	-	61.5	+	21	-	30		0.2		1	-	10.0	+
Massey(RT)	72	-	59.2		22		34	+	0.4	+	9	+	10.3	+
GA-951079-2E31	69	-	61.3	+	20	-	32	+	0.3	+	1	-	9.5	
GA-951216-2E26	69	-	59.6		22		30		0.2		2		8.9	
Average	85		59.7		22		29		0		3		8.9	
C.V.	10		0.9		4		5		–		–		7.6	
LSD (0.05)	12		0.7		1		2		0		2		0.9	

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages. A plus or minus sign indicates a performance significantly above or below the test average.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] A plus or minus sign indicates a performance significantly above or below the test average.

Table 29. Summary of performance of entries in the Virginia Tech Wheat Test, planted no-till at Shenandoah Valley (Dale Beery Farm in Rockingham County), Va., 2006 harvest.

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Lodging (0.2-10)[c]
VA03W-435(RT)	103	+[d]	56.1		0.2
Pioneer 26R12(D)	100	+	56.6		0.2
VA03W-409(RT)	100	+	55.6	-	0.2
SS 550(RT)	98		56.1		0.6
USG 3706(DE)	98		57.5	+	0.2
VA04W-306(RT)	98		56.3		2.8
Coker 9553(D)	98		56.8	+	0.2
Pioneer 26R31	97		54.6	-	0.2
VA02W-398(RT)	97		54.7	-	0.2
VA03W-412(RT)	97		57.2	+	0.2
VA02W-513(RT)	95		56.9	+	0.2
VA03W-434(RT)	95		55.7		0.2
VA03W-110(RT)	95		54.5	-	2.2
GA-96229-3A41	95		56.7		1.9
Dominion(RT)	94		56.2		0.2
VA03W-436(RT)	94		55.8		0.2
GA-951395-3E25	94		55.0	-	0.2
GA-951395-3A31	94		55.9		2.7
Panola(D)	94		55.1	-	0.2
USG 3209(DE)	93		56.3		0.9
Choptank(RT)	93		55.1	-	1.1
SS 8309(RT)	93		56.2		0.8
SS 520(RT)	93		55.2	-	1.1
Pioneer 26R24(D)	93		56.2		0.2
VA03W-235(RT)	93		56.5		1.2
MSU Line E1007	93		55.7		0.2
Pioneer 26R15(D)	92		55.1	-	0.2
SS 8404(RT)	92		56.9	+	0.2
VA02W-555(RT)	92		55.1	-	0.2
M01-4377(D)	92		57.2	+	1.4
VA01W-205(RT)	91		56.4		0.2
Coker 9184(D)	91		58.7	+	0.2
SS 8302(RT)	91		57.1	+	0.2
Coker 9511(D)	91		58.1	+	0.2
Sisson(RT)	91		56.5		0.2

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] A plus or minus sign indicates a performance significantly above or below the test average.

Table 29. Summary of performance of entries in the Virginia Tech Wheat Test, planted no-till at Shenandoah Valley (Dale Beery Farm in Rockingham County), Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)	Test Weight (Lb/bu)		Lodging (0.2-10)[c]	
Chesapeake(RT)	91	56.5		1.4	
VA04W-86(RT)	91	54.0	-	0.8	
VA04W-90(RT)	91	56.3		0.4	
SS 560(RT)	90	57.0	+	0.2	
GA-96229-3E39	90	56.9	+	1.6	
USG 3342(DE)	89	54.5	-	0.2	
VA02W-370(RT)	89	56.6		0.2	
VA01W-243(RT)	89	56.7		1.2	
VA03W-310(RT)	89	54.0	-	0.2	
V9412(DE)	88	57.1	+	1.0	
SS-MPV 57(RT)	88	56.8	+	0.2	
VA03W-203(RT)	88	54.8	-	2.8	
Pioneer XW04C	88	57.8	+	0.2	
GA-951216-2E26	88	57.3	+	0.2	
USG 3665(DE)	88	55.1	-	0.2	
Tribute(DE)	87	58.7	+	1.1	
VA02W-124(RT)	87	56.4		0.2	
VA03W-411(RT)	87	56.0		0.2	
VA04W-259(RT)	87	57.2	+	3.5	+
VA04W-439(RT)	87	57.0	+	1.1	
Renwood 3260(DE)	86	57.3	+	2.1	
GA-951079-2E31	86	55.5	-	4.3	+
USG 3910(DE)	86	57.2	+	0.2	
VA03W-204(RT)	85	55.8		1.4	
VA04W-227(RT)	85	57.0	+	0.9	
VA03W-456(RT)	84	55.3	-	0.8	
VA04W-563(RT)	84	57.0	+	0.8	
Tribute-Neuse blend	84	58.4	+	0.2	
Coker 9436(D)	83	54.5	-	0.2	
95047-6-3-18	83	56.5		0.2	
McCormick(RT)	82	57.6	+	0.2	
VA04W-264(RT)	82	56.0		3.5	+
95053-1A-11-6	82	56.7		1.5	
B990133(D)	82	56.0		0.2	
NC00-15332(R)	81	54.7	-	0.2	
Featherstone 176(RT)	81	55.8		4.4	+

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] A plus or minus sign indicates a performance significantly above or below the test average.

Table 29. Summary of performance of entries in the Virginia Tech Wheat Test, planted no-till at Shenandoah Valley (Dale Beery Farm in Rockingham County), Va., 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a)		Test Weight (Lb/bu)		Lodging (0.2-10)[c]	
Featherstone 520(RT)	80		57.2	+	2.5	
USG 3137(DE)	80		56.2		0.6	
V9510(DE)	80		54.2	-	1.8	
VA02W-713(RT)	79		57.5	+	0.2	
Tribute-USG 3592 blend	79		57.3	+	0.2	
VA00W-38(RT)	77	-	55.5	-	2.2	
VA03W-211(RT)	77	-	56.0		0.2	
VA03W-453(RT)	77	-	53.2	-	2.2	
Neuse-USG 3592 blend	76	-	56.4		0.8	
USG 3592(DE)	75	-	55.4	-	3.8	+
Massey(RT)	74	-	56.5		1.7	
Average	89		56.2		0.9	
C.V.	8		0.7		---	
LSD (0.05)	11		0.6		2.4	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] A plus or minus sign indicates a performance significantly above or below the test average.

Table 30. Summary of performance of entries planted no-till in the Virginia Tech Wheat Test (Warsaw, Shenandoah Valley, and Holland), 2006 harvest.

Line[a,b]	Yield (Bu/a) (3)[e]		Test Weight (Lb/bu) (3)		Date Headed (Mar31+) (1)		Height (In) (1)		Lodging (0.2-10)[c] (2)		Leaf Rust (0-9)[d] (1)		Early Height (In) (1)	
VA04W-306(RT)	90	+[f]	57.9		22		30		1.5		4		9.0	
SS 8309(RT)	89	+	57.9		25	+	33	+	0.5		6	+	8.1	
Pioneer 26R24(D)	89	+	58.2	+	23	+	32	+	0.2		2		9.1	
VA04W-227(RT)	89	+	58.1		23	+	29		0.6		5	+	8.3	
SS 550(RT)	88	+	57.8		23	+	28		0.5		6	+	8.8	
VA02W-398(RT)	88	+	56.5	-	20	-	27	-	0.3		1	-	9.1	
VA03W-409(RT)	88	+	56.8	-	24	+	29		0.2		1	-	8.6	
VA03W-436(RT)	88	+	57.3	-	23	+	25	-	0.2		2		8.8	
SS 8302(RT)	87		58.3	+	24	+	32	+	0.2		5	+	9.6	
VA02W-555(RT)	87		57.0	-	21	-	26	-	0.2		6	+	9.4	
VA03W-110(RT)	87		57.0	-	24	+	30		1.2		1	-	9.1	
GA-951395-3A31	87		58.0		21	-	28		1.5		1	-	10.5	+
Panola(D)	87		56.5	-	23	+	30		0.2		4		9.4	
USG 3209(DE)	86		57.7		22		27	-	0.6		7	+	9.3	
Pioneer 26R12(D)	86		58.4	+	23	+	29		0.2		2		8.6	
Pioneer 26R15(D)	86		57.1	-	24	+	30		0.2		1	-	8.6	
VA04W-90(RT)	86		58.0		23	+	32	+	0.3		3		9.3	
VA04W-259(RT)	86		58.2	+	24	+	29		1.8	+	1	-	9.1	
Pioneer 26R31	85		56.9	-	23	+	26	-	0.2		1	-	9.0	
VA03W-434(RT)	85		57.5	-	24	+	25	-	0.2		1	-	8.9	
VA03W-435(RT)	85		57.2	-	24	+	25	-	0.2		1	-	8.0	-
VA04W-439(RT)	85		58.9	+	22		29		0.6		7	+	8.5	
95047-6-3-18	85		56.9	-	24	+	33	+	0.2		4		9.4	
GA-951395-3E25	85		57.9		22		29		0.2		1	-	10.6	+
MSU Line E1007	85		57.4	-	25	+	33	+	0.2		4		9.4	
USG 3910(DE)	85		58.0		23	+	30		0.2		3		8.0	-
V9510(DE)	85		57.3	-	23	+	31	+	1.0		6	+	9.4	
Dominion(RT)	84		58.1		24	+	27	-	0.2		2		7.8	-
VA01W-205(RT)	84		58.3	+	21	-	26	-	0.2		1	-	9.6	
SS 520(RT)	84		56.7	-	20	-	31	+	0.6		2		9.5	
VA02W-713(RT)	84		59.8	+	21	-	32	+	0.2		5	+	9.4	
VA03W-235(RT)	84		58.5	+	24	+	31	+	0.7		4		8.8	
VA03W-310(RT)	84		55.4	-	22		30		0.2		1	-	9.6	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] The number in parentheses below column headings indicates the number of locations on which data are based.
[f] A plus or minus sign indicates a performance significantly above or below the test average.

Table 30. Summary of performance of entries planted no-till in the Virginia Tech Wheat Test (Warsaw, Shenandoah Valley, and Holland), 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a) (3)[e]		Test Weight (Lb/bu) (3)		Date Headed (Mar31+) (1)		Height (In) (1)		Lodging (0.2-10)[c] (2)		Leaf Rust (0-9)[d] (1)		Early Height (In) (1)	
V9412(DE)	83		57.9		24	+	29		0.6		2		8.1	
Sisson(RT)	83		58.2	+	21	-	29		0.3		9	+	9.8	+
SS 560(RT)	83		57.6	-	24	+	29		0.2		4		8.1	
USG 3706(DE)	83		58.6	+	23	+	26	-	0.2		2		8.1	
Chesapeake(RT)	83		58.5	+	23	+	29		0.8		5	+	9.3	
VA04W-86(RT)	83		57.0	-	21	-	28		0.5		5	+	9.3	
Coker 9184(D)	82		59.3	+	24	+	28		0.2		1	-	8.5	
SS 8404(RT)	82		58.9	+	24	+	27	-	0.2		2		9.0	
SS-MPV 57(RT)	82		57.4	-	24	+	30		0.2		5	+	8.6	
Tribute(DE)	82		60.4	+	22		28		0.7		1	-	7.5	-
VA02W-124(RT)	82		57.3	-	23	+	30		0.3		1	-	9.0	
VA02W-513(RT)	82		58.5	+	21	-	27	-	0.2		2		9.4	
VA01W-243(RT)	82		58.0		22		30		0.7		1	-	9.6	
VA03W-412(RT)	82		58.9	+	22		28		0.2		5	+	9.1	
M01-4377(D)	82		58.9	+	25	+	32	+	0.8		3		6.8	-
NC00-15332(R)	81		55.6	-	24	+	32	+	0.2		3		8.6	
Coker 9511(D)	81		58.4	+	22		29		0.2		1	-	7.6	-
VA02W-370(RT)	81		58.7	+	19	-	27	-	0.2		2		9.1	
VA03W-203(RT)	81		57.4	-	21	-	26	-	1.5		2		9.5	
VA03W-411(RT)	81		57.3	-	22		32	+	0.2		2		9.3	
VA04W-264(RT)	81		57.6	-	22		30		1.9	+	2		9.6	
USG 3665(DE)	81		57.3	-	24	+	30		0.2		2		8.1	
Tribute-USG 3592 blend	81		59.0	+	24	+	32	+	0.3		1	-	8.6	
VA00W-38(RT)	80		57.0	-	24	+	30		1.2		2		9.0	
Renwood 3260(DE)	80		58.6	+	21	-	30		1.2		2		8.8	
Featherstone 176(RT)	80		57.4	-	21	-	30		2.3	+	4		9.8	+
95053-1A-11-6	80		56.9	-	24	+	33	+	1.0		3		9.4	
GA-96229-3A41	80		58.2	+	25	+	33	+	1.1		1	-	8.5	
USG 3592(DE)	80		57.8		23	+	32	+	2.2	+	1	-	9.6	
Coker 9553(D)	80		58.2	+	20	-	28		0.2		2		9.4	
Choptank(RT)	79		57.6	-	22		24	-	0.6		2		9.1	
Coker 9436(D)	79		55.2	-	28	+	29		0.2		1	-	7.8	-
USG 3137(DE)	79		57.8		24	+	35	+	0.4		3		8.5	

[a] Released cultivars are shown in bold print.

[b] Varieties are ordered by descending yield averages.

[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.

[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

[e] The number in parentheses below column headings indicates the number of locations on which data are based.

[f] A plus or minus sign indicates a performance significantly above or below the test average.

Table 30. Summary of performance of entries planted no-till in the Virginia Tech Wheat Test (Warsaw, Shenandoah Valley, and Holland), 2006 harvest. (cont.)

Line[a,b]	Yield (Bu/a) (3)[e]		Test Weight (Lb/bu) (3)		Date Headed (Mar31+) (1)		Height (In) (1)		Lodging (0.2-10)[c] (2)		Leaf Rust (0-9)[d] (1)		Early Height (In) (1)	
VA03W-204(RT)	79		58.0		21	-	30		0.8		1	-	9.8	+
VA04W-563(RT)	79		59.1	+	21	-	31	+	0.5		3		9.1	
McCormick(RT)	78		59.6	+	23	+	27	-	0.2		9	+	8.5	
VA03W-453(RT)	78		56.7	-	23	+	29		1.2		1	-	8.5	
VA03W-456(RT)	78		57.9		25	+	31	+	0.5		1	-	7.5	-
GA-96229-3E39	78		58.5	+	24	+	33	+	0.9		1	-	9.0	
Tribute-Neuse blend	78		59.5	+	23	+	30		0.2		1	-	8.6	
Featherstone 520(RT)	77		58.7	+	22		30		1.4		4		9.8	+
USG 3342(DE)	76	-	56.5	-	21	-	25	-	0.2		2		8.9	
GA-951216-2E26	76	-	58.6	+	22		30		0.2		2		8.9	
Pioneer XW04C	75	-	59.5	+	21	-	30		0.2		1	-	10.0	+
B990133(D)	75	-	57.6	-	19	-	27	-	0.2		1	-	8.6	
Neuse-USG 3592 blend	75	-	58.0		24	+	32	+	0.5		1	-	9.1	
VA03W-211(RT)	74	-	58.1		19	-	27	-	0.2		2		9.1	
GA-951079-2E31	73	-	58.2	+	20	-	32	+	2.3	+	1	-	9.5	
Massey(RT)	72	-	57.8		22		34	+	1.1		9	+	10.3	+
Average	82		57.9		22		29		0.6		3		8.9	
C.V.	9		0.7		4		5		---		---		7.6	
LSD (0.05)	6		0.3		1		2		1.2		2		0.9	

[a] Released cultivars are shown in bold print.
[b] Varieties are ordered by descending yield averages.
[c] Belgian Lodging Scale = Area X Intensity X 0.2. Area = 1-10, where 1 is wheat unaffected and 10 is entire plot affected and Intensity = 1-5, where 1 is wheat standing upright and 5 is wheat totally flat.
[d] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.
[e] The number in parentheses below column headings indicates the number of locations on which data are based.
[f] A plus or minus sign indicates a performance significantly above or below the test average.

Section 3: Milling and Baking Quality

Milling and baking quality of wheat lines grown in the 2004-2005 Virginia Tech Wheat Test were assessed by the USDA-ARS Soft Wheat Quality Laboratory (SWQL) in Wooster, Ohio (Table 31). Quality evaluations were conducted using 3,000 gram seed samples from wheat lines grown at the Warsaw, Va., test site. The data presented here are for a single location and, therefore, are not a definitive measure of a given wheat line's milling and baking quality. Quality varies from location to location and from year to year; therefore, data from multiple years and locations are needed to accurately define quality of a given wheat line. While wheat lines are listed in the table from highest to lowest "Milling Quality," this parameter alone is not indicative of end-use quality, which relates to a cultivar's suitability for use in manufacturing a vast array of products requiring flour with specific and diverse quality characteristics.

Milling and baking quality of wheat lines were compared to that of the check cultivar Sisson. On the basis of eight previous independent Allis-Chalmers milling-quality evaluations by the SWQL, Sisson scored a 70.7 for milling quality. The evaluation based on the 2005 crop yielded a score of 65.9 for Sisson. In comparison, SS-MPV 57 scored substantially higher than previously, 85.2 compared to 75.2, based on two evaluations. Pastry-baking quality of both cultivars is below average but acceptable. Lines receiving milling scores of "A" or "B" have statistically better milling scores than Sisson. Wheat lines receiving milling or baking quality scores below "D" may have questionable milling quality and/or baking quality for pastry products, such as cookies.

Milling-quality scores of released cultivars ranged from 85.2 for SS-MPV 57 to 58.7 for Coker 9553 with 13 cultivars and seven experimental lines having similar or better milling quality than Sisson (score $\geq$ 65.9). Baking-quality scores for released cultivars ranged from a high of 78.2 for SS 8404 to a low of 37.5 for USG 3209 compared to Sisson at 50.5. Flour yields among released cultivars ranged from a high of 78.9 percent for Pioneer Brand 26R31 to a low of 76.2 percent for Coker 9553, compared to 76.9 percent for Sisson. Cookie diameters of released cultivars ranged from a low of 16.43 cm for USG 3209 to a high of 17.65 cm for SS 8404, compared to 16.82 cm for Sisson.

Among released cultivars, flour protein concentration varied from 8.54 percent for SS 520 to 10.04 percent for USG 3342, compared with 8.50 percent for Sisson. Protein quality, specifically gluten strength, based on Lactic Acid Solvent Retention Capacity varied from a high of 116.7 for Renwood 3260 to a low of 74.9 for USG 3342, compared to 88.6 for the check cultivar Sisson. Lines having lower Lactic Acid scores would produce a dough having weak gluten strength and more suitable for pastry products, while lines having higher Lactic Acid scores such as Renwood 3260 would produce a dough having stronger gluten strength and more suitable for cracker or certain bread products.

Table 31. Milling and baking quality of entries in the Virginia Tech Wheat Test based on evaluations of the 2005 harvest.

Line	Historical Milling Quality Score	Historical No. Tests	Milling Quality Score		Baking Quality Score		Straight Grade Flour Yield	Break Flour Yield		Softness Endosperm Separation %	Flour Protein %		Cookie Diameter CM		Lactic Acid Adj. 9% Prot.
Standard=Sisson	70.7	8	65.9	C	50.5	D	76.9	29.7		10.0	8.50		16.82		88.6
Released Varieties															
SS-MPV 57	75.2	2	85.2	A	55.8	D	78.7	28.4		7.2	9.11	*	16.98		81.1
Pioneer 26R31			81.8	A	55.8	D	78.9	25.9	*	7.7	8.93		16.98		92.4
Renwood 3706	76.7	4	81.5	A	58.5	D	78.4	26.1	*	8.0	9.49	*	17.06		110.4
Dominion	78.8	4	80.9	A	48.2	E	78.5	25.9	*	7.8	9.40	*	16.75		103.4
SS 520	79.7	6	80.8	A	48.5	E	78.2	29.2		8.0	8.54		16.76		103.9
SS 8404			77.5	B	78.2	B	78.0	29.5		8.4	8.86		17.65		80.3
Pioneer 26R15	74.8	4	76.4	B	53.2	D	77.4	31.1		8.1	9.08	*	16.90		109.1
SS 560	65.7	5	76.3	B	49.8	E	78.1	29.5		8.5	9.24	*	16.80		96.3
Renwood 3260	75.6	2	75.7	B	39.2	F	77.5	29.2		8.4	9.82	*	16.48	*	116.7
Tribute	64.7	8	72.2	B	43.8	E	77.5	27.6		8.9	9.18	*	16.62		108.3
Pioneer 26R24	64.3	8	71.9	B	52.8	D	76.9	31.4		8.8	8.96		16.89		111.0
McCormick	67.6	7	70.6	B	51.8	D	77.3	30.5		9.2	9.91	*	16.86		104.1
Featherstone 176	72.6	4	68.4	C	47.5	E	77.1	26.3	*	9.2	9.08	*	16.73		108.1
Sisson	70.7	8	65.9	C	50.5	D	76.9	29.7		10.0	8.50		16.82		88.6
MV5-46	63.1	3	64.7	C	43.5	E	76.7	30.2		9.8	9.52	*	16.61	*	82.4
USG 3209	53.2	5	64.1	C	37.5	F	77.2	26.4	*	9.6	9.39	*	16.43	*	92.6
SS 550	62.0	5	63.2	C	54.8	D	76.5	31.0		10.1	8.88		16.95		91.1
USG 3342	61.4	4	63.2	C	52.5	D	76.4	29.9		9.9	10.04	*	16.88		74.9
V9412			60.9	C	61.2	C	76.5	27.1		10.6	8.68		17.14		108.8
Coker 9553			58.7	D	49.2	E	76.2	30.3		10.4	8.95		16.78		105.0
Experimental Lines															
Standard=Sisson	70.7	8	65.9	C	50.5	D	76.9	29.7		10.0	8.50		16.82		88.6
VA02W-398			83.0	A	46.5	E	78.2	31.6		8.0	8.78		16.70		104.8
VA01W-243			80.6	A	59.8	D	78.3	28.9		7.8	9.31	*	17.10		100.2
VA03W-235			78.9	B	69.5	C	78.0	34.4		8.1	9.19	*	17.39		85.6
VA02W-124			77.4	B	40.8	E	78.1	26.1	*	8.7	9.78	*	16.53		101.8

Table 31. Milling and baking quality of entries in the Virginia Tech Wheat Test based on evaluations of the 2005 harvest. (cont.)

Line	Historical		Milling Quality Score		Baking Quality Score		Straight Grade Flour Yield		Break Flour Yield		Softness Endosperm Separation %	Flour Protein %		Cookie Diameter CM		Lactic Acid Adj. 9% Prot.
	Milling Quality Score	No. Tests														
VA01W-205			77.2	B	83.8	A	77.7		32.7		8.8	8.49		17.82		103.7
VA03W-409			74.7	B	61.5	C	77.7		32.3		8.9	8.65		17.15		84.6
VA03W-412			71.8	B	49.2	E	77.1		30.6		9.1	9.01	*	16.78		96.8
VA02W-370			65.6	C	46.5	E	76.8		27.8		9.9	9.51	*	16.70	*	97.6
VA03W-211			64.4	C	36.5	F	76.5		26.5	*	10.1	10.24	*	16.40	*	96.4
VA02W-713			61.4	C	49.5	E	76.3		30.0		10.5	8.47		16.79		91.5
VA02W-555			59.6	D	45.8	E	76.2		29.2		10.0	8.71		16.68		99.0
VA03W-434			57.8	D	59.2	D	75.7	*	31.4		10.9	8.83		17.08		98.8
VA03W-453			57.7	D	65.2	C	76.0	*	24.9	*	10.8	10.11	*	17.26		86.2
VA03W-436			56.1	D	70.2	B	75.6	*	30.6		11.3	8.46		17.41		96.8
VA02W-513			55.0	D	36.2	F	75.8	*	26.6	*	10.8	10.16	*	16.39	*	104.3
NC00-15332			44.3	E	26.5	F	74.9	Q	29.1		12.5	8.68		16.10	Q	94.8

Section 4: Wheat Scab Research

A major focus of Virginia Tech's wheat breeding program is the development of adapted varieties having resistance to scab, Fusarium head blight (FHB). This is being accomplished via the use of molecular marker-assisted selection and combination of different resistance genes that reduce disease incidence and severity. Wheat varieties having consistently low FHB index (incidence x severity x 100) values <15 in inoculated FHB tests during the past three years (2004 through 2006) were Massey, Renwood 3260, Tribute, Pioneer 26R15, V9412, Chesapeake, USG3342, and SS8302 (Tables 32 through 34). Varieties tested during the past two years (2005 and 2006) with similar levels of FHB resistance include Coker 9511, USG3137, SS8404, and V9510 (Tables 32 and 33). Two wheat lines proposed for release during the next two years with consistently high levels of resistance to FHB include VA02W-370 (Tables 32 through 34) and VA02W-713 (Tables 32 and 33). VA02W-713 will be the first wheat variety released directly from the Virginia Tech FHB breeding program having resistance to FHB infection and disease spread.

Table 32. Summary of reaction of entries in the 2005-06 Virginia Tech State Wheat Test to Fusarium head blight, 2006 harvest.[a]

Line[b,c]	Incidence (%)[d]		Severity (%)[e]		Index[f]		Heading Date (Mar31+)
VA02W-370(RT)	35	-[g]	10	-	3	-	33
Renwood 3260(DE)	30	-	11	-	4	-	33
Massey(RT)	45		11	-	5	-	35
Coker 9511(D)	45		13	-	6	-	33
USG 3137(DE)	40	-	18		7	-	35
Coker 9553(D)	50		14		7	-	35
VA04W-439(RT)	45		15		7	-	38
VA04W-90(RT)	55		14		8	-	35
Tribute(DE)	45		18		8	-	35
VA02W-713(RT)	50		17		9		33
VA04W-563(RT)	50		16		9		35
USG 3342(DE)	45		23		9		33
Tribute-Neuse blend	50		17		9		35
NC00-15332(R)	70		14		10		35
Chesapeake(RT)	70		14		10		35
MSU Line E1007	55		20		11		33
VA03W-211(RT)	65		17		11		33
Pioneer 26R15(D)	55		21		12		35
SS 8404(RT)	55		20		12		35
V9412(DE)	55		20		12		33
VA03W-412(RT)	60		20		12		33
VA03W-456(RT)	65		19		12		38
V9510(DE)	70		18		13		33
McCormick(RT)	60		21		13		35
SS 8302(RT)	60		23		13		35
VA03W-435(RT)	70		19		13		35
USG 3910(DE)	60		23		13		35
95047-6-3-18	50		32		14		35
Coker 9184(D)	65		23		15		38
Pioneer XW04C	70		21		15		31
SS 8309(RT)	65		24		16		35
VA01W-205(RT)	65		24		16		33

[a] Entries were planted in 2-row plots, 4 ft in length at Blacksburg, Va., and were inoculated at 50% and 100% heading stages with Fusarium graminearum spore suspension (5 x 10^4 spores/ml).
[b] Released cultivars are shown in bold print.
[c] Varieties are ordered by ascending index averages.
[d] Scab Incidence (%): Percentage of infected spikes among 10 randomly selected spikes.
[e] Scab Severity (%): Percentage of infected spikelets divided by total number of spikelets among 10 infected spikes.
[f] Scab Index = Incidence x Severity/100; it is an overall indicator of scab resistance/susceptibility level.
[g] A plus or minus sign indicates a performance significantly above or below the average.

Table 32. Summary of reaction of entries in the 2005-06 Virginia Tech State Wheat Test to Fusarium head blight, 2006 harvest.[a] (cont.)

Line[b,c]	Incidence (%)[d]	Severity (%)[e]	Index[f]	Heading Date (Mar31+)	
B990133(D)	65	24	16	33	
VA02W-124(RT)	55	30	17	35	
USG 3665(DE)	60	29	17	35	
VA03W-310(RT)	65	25	18	33	
Dominion(RT)	70	24	18	35	
Coker 9436(D)	70	25	18	38	
SS-MPV 57(RT)	70	25	18	38	
GA-951079-2E31	75	24	18	31	
VA03W-409(RT)	70	26	18	35	
Sisson(RT)	70	27	19	33	
VA03W-235(RT)	70	26	19	35	
95053-1A-11-6	60	30	19	35	
VA02W-398(RT)	60	33	20	33	
VA01W-243(RT)	75	26	20	33	
SS 550(RT)	75	27	20	38	
VA03W-453(RT)	60	34	21	33	
VA04W-86(RT)	70	30	21	35	
VA03W-434(RT)	65	32	22	35	
M01-4377(D)	75	28	22	35	
USG 3209(DE)	70	32	22	33	
Featherstone 520(RT)	75	31	23	38	
VA03W-411(RT)	65	36	24	33	
Neuse-USG 3592 blend	60	40	24	35	
VA04W-264(RT)	75	34	26	35	
Featherstone 176(RT)	70	37	26	35	
Choptank(RT)	85	31	27	33	
VA02W-555(RT)	80	33	27	33	
USG 3706(DE)	70	39	28	35	
VA03W-204(RT)	75	37	28	33	
VA03W-203(RT)	85	35	29	31	
SS 520(RT)	85	34	30	31	
Panola(D)	65	41	30	33	

[a] Entries were planted in 2-row plots, 4 ft in length at Blacksburg, Va., and were inoculated at 50% and 100% heading stages with Fusarium graminearum spore suspension (5 x 10^4 spores/ml).
[b] Released cultivars are shown in bold print.
[c] Varieties are ordered by ascending index averages.
[d] Scab Incidence (%): Percentage of infected spikes among 10 randomly selected spikes.
[e] Scab Severity (%): Percentage of infected spikelets divided by total number of spikelets among 10 infected spikes.
[f] Scab Index = Incidence x Severity/100; it is an overall indicator of scab resistance/susceptibility level.
[g] A plus or minus sign indicates a performance significantly above or below the average.

Table 32. Summary of reaction of entries in the 2005-06 Virginia Tech State Wheat Test to Fusarium head blight, 2006 harvest.[a] (cont.)

Line[b,c]	Incidence (%)[d]		Severity (%)[e]		Index[f]		Heading Date (Mar31+)
VA00W-38(RT)	80		36		30		35
SS 560(RT)	65		47		30		35
Pioneer 26R31	80		39		32		35
VA02W-513(RT)	70		51		35		33
GA-951395-3A31	80		42		35		35
VA03W-436(RT)	80		45		36		35
Tribute-USG 3592 blend	70		56		37		35
Pioneer 26R12(D)	80		45		38		35
VA04W-306(RT)	80		48		38		35
Pioneer 26R24(D)	75		54		40		35
GA-96229-3E39	75		59	+[g]	44		35
GA-951395-3E25	85		54		47	+	33
VA04W-259(RT)	85		55		47	+	35
USG 3592(DE)	80		63	+	52	+	35
VA03W-110(RT)	90	+	60	+	54	+	35
VA04W-227(RT)	90	+	60	+	54	+	35
GA-96229-3A41	90	+	65	+	59	+	35
GA-951216-2E26	90	+	66	+	59	+	35
Grand Mean	66.5		30.5		21.8		
CV	16.8		35.9		42.4		
R^2	0.734		0.768		0.805		
LSD	22.24		21.79		18.37		

[a] Entries were planted in 2-row plots, 4 ft in length at Blacksburg, Va., and were inoculated at 50% and 100% heading stages with Fusarium graminearum spore suspension (5 x 10^4 spores/ml).
[b] Released cultivars are shown in bold print.
[c] Varieties are ordered by ascending index averages.
[d] Scab Incidence (%): Percentage of infected spikes among 10 randomly selected spikes.
[e] Scab Severity (%): Percentage of infected spikelets divided by total number of spikelets among 10 infected spikes.
[f] Scab Index = Incidence x Severity/100; it is an overall indicator of scab resistance/susceptibility level.
[g] A plus or minus sign indicates a performance significantly above or below the average.

Table 33. Two-year average summary of Fusarium head blight (scab) and glume blotch resistance of entries in Virginia Tech Wheat Tests, 2005 and 2006 harvests.[a]

Line[b,c]	Incidence (%)[d]	Severity (%)[e]	Index[f]
Massey	55	12.2	6.7
Coker 9511	58	13.5	7.9
Renwood 3260	50	14.4	8.3
VA02W-370	58	13.1	8.3
Coker 9553	60	14.6	8.9
Pioneer 26R15(D)	55	16.6	9.3
VA02W-713	60	15.5	9.4
USG 3137	58	17.4	9.7
USG 3342	55	19.9	10.3
Tribute	60	17.6	10.7
NC00-15332(R)	70	15.4	10.8
SS 8404	60	18.5	11.2
V9412(D)	70	17.0	12.2
Chesapeake	73	17.3	12.6
VA01W-205	68	19.4	13.3
SS 8302(R)	70	20.4	13.6
V9510	73	19.2	14.0
McCormick	70	20.7	14.6
Coker 9436(D)	73	20.4	14.7
VA02W-124	68	23.1	15.0
USG 3209(RT)	68	22.4	15.4
SS 8309(R)	70	22.3	15.6
VA03W-211	73	21.1	15.6
VA03W-412	78	20.3	15.8
VA01W-243	78	20.6	16.1
VA03W-453	73	24.2	16.3
VA03W-235	70	23.1	16.4
VA03W-409	75	22.7	16.8
SS 550(B)	78	22.2	16.9
Sisson	78	23.0	17.6
Coker 9184(D)	78	22.9	17.7
SS MPV 57	80	23.2	18.4
Dominion	78	25.1	20.1
Featherstone 520(RT)	83	25.2	20.5

[a] Entries were planted in 2-row plots, 4 ft in length at Blacksburg, Va., and were inoculated at 50% and 100% heading stages with Fusarium graminearum spore suspension (5 x 10^4 spores/ml).
[b] Released cultivars are shown in bold print.
[c] Varieties are ordered by ascending index averages.
[d] Scab Incidence (%): Percentage of infected spikes among 10 randomly selected spikes.
[e] Scab Severity (%): Percentage of infected spikelets divided by total number of spikelets among 10 infected spikes.
[f] Scab Index = Incidence x Severity/100; it is an overall indicator of scab resistance/susceptibility level.

Table 33. Two-year average summary of Fusarium head blight (scab) and glume blotch resistance of entries in Virginia Tech Wheat Tests, 2005 and 2006 harvests.[a] (cont.)

Line[b,c]	Incidence (%)[d]	Severity (%)[e]	Index[f]
Featherstone 176	75	28.3	20.5
VA03W-434	75	28.4	21.5
Choptank(R)	85	26.8	23.1
VA02W-398	73	32.6	23.4
VA02W-555	85	28.2	23.7
SS 560(R)	73	35.0	24.4
3706	80	31.9	25.1
VA02W-513	73	36.6	25.7
Pioneer 26R12(D)	80	31.1	25.8
SS 520(R)	85	30.7	26.2
Pioneer 26R24(D)	70	37.7	26.9
Pioneer 26R31	80	34.0	27.5
VA03W-436	83	35.8	29.3
Grand Mean	71	23.0	16.7

[a] Entries were planted in 2-row plots, 4 ft in length at Blacksburg, Va., and were inoculated at 50% and 100% heading stages with Fusarium graminearum spore suspension (5 x 10^4 spores/ml).
[b] Released cultivars are shown in bold print.
[c] Varieties are ordered by ascending index averages.
[d] Scab Incidence (%): Percentage of infected spikes among 10 randomly selected spikes.
[e] Scab Severity (%): Percentage of infected spikelets divided by total number of spikelets among 10 infected spikes.
[f] Scab Index = Incidence x Severity/100; it is an overall indicator of scab resistance/susceptibility level.

Table 34. Three-year average summary of Fusarium head blight (scab) and glume blotch resistance of entries in Virginia Tech Wheat Tests, 2004-2006 harvests.[a]

Line[b,c]	Incidence (%)[d]	Severity (%)[e]	Index[f]	Barley Yellow Dwarf Virus	*S.nordorum* (0-9)[g]
Massey	55	12.6	7.0	4	4
Pioneer 26R15	58	16.5	9.9	5	6
Tribute	54	19.7	10.5	6	2
Renwood 3260	52	20.2	11.4	5	5
VA02W-370	63	16.9	11.7	3	5
V9412	70	16.4	11.8	4	3
Coker 9436	68	17.9	12.4	6	7
Chesapeake	75	17.7	13.5	5	3
NC00-15332	77	17.5	13.8	6	7
SS 8309	73	19.9	14.4	6	2
USG 3342	61	22.8	14.8	6	5
SS 8302	75	21.0	15.2	5	7
VA01W-205	70	21.4	15.3	3	6
VA02W-124	72	23.7	16.7	2	4
McCormick	75	22.0	16.8	5	3
SS-MPV 57	80	21.9	17.5	6	2
USG 3209	73	23.5	17.6	7	5
Coker 9184	75	24.8	18.7	4	8
SS 550	82	23.7	19.3	8	4
Dominion	80	23.8	19.5	7	5
Featherstone 520	77	27.2	21.0	8	4
Sisson	83	25.3	21.1	7	2
Pioneer 26R31	76	28.1	22.0	5	2
Pioneer 26R12	80	27.6	22.7	6	3
SS 560	70	33.9	22.9	4	3
VA02W-513	77	31.9	23.4	3	3
Choptank	88	27.4	24.6	7	6
VA02W-555	88	28.3	24.9	3	3
VA02W-398	77	33.8	25.8	7	1
Featherstone 176	81	35.1	28.9	5	4
USG 3706	83	35.5	30.2	5	8
Pioneer 26R24	77	44.8	36.6	3	2
SS 520	90	43.0	40.0	5	2
Grand Mean	74	25.0	19.1	5	4

[a] Entries were planted in 2-row plots, 4 ft in length at Blacksburg, Va., and were inoculated at 50% and 100% heading stages with Fusarium graminearum spore suspension (5 x 10^4 spores/ml).
[b] Released cultivars are shown in bold print.
[c] Varieties are ordered by ascending index averages.
[d] Scab Incidence (%): Percentage of infected spikes among 10 randomly selected spikes.
[e] Scab Severity (%): Percentage of infected spikelets divided by total number of spikelets among 10 infected spikes.
[f] Scab Index = Incidence x Severity/100; it is an overall indicator of scab resistance/susceptibility level.
[g] The 0-9 ratings indicate a genotype's response to disease, where 0 = highly resistant and 9 = highly susceptible.

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