



SMALL GRAINS IN 2007

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Recommended Small-Grain Varieties

The following are the small-grain variety recommendations for Virginia in 2007. 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 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 | 3 ^b | 2 | 4 | 2 | Early |
| FEATHERSTONE 176 | 3 | 2 | 3 | 3 | Early |
| Sisson | 3 | 3 | 3 | 3 | Early |
| PIONEER BRAND 26R24 | 4 | 3 | 3 | 3 | Early |
| USG 3706 | 3 | 4 | 4 | 3 | Early |
| USG 3209 ^a | 4 | 2 | 1 | 1 | Early |
| VIGORO Tribute | 3 | 4 | 3 | 2 | Avg. |
| McCormick | 2 | 4 | 3 | 2 | Avg. |
| SS 8404 ^c | 3 | 4 | 4 | 4 | Avg. |
| VIGORO V9510 ^c | 3 | 3 | 1 | 2 | Avg. |
| Chesapeake | 3 | 4 | 1 | 2 | Avg. |
| PIONEER BRAND 26R15 | 3 | 1 | 4 | 3 | Avg. |
| VIGORO Dominion | 3 | 3 | 4 | 2 | Late |
| SS 560 | 4 | 2 | 3 | 1 | Late |
| PIONEER BRAND 26R12 | 2 | 4 | 3 | 3 | Late |
| USG 3665 ^c | 4 | 2 | NA | NA | Late |
| SS 8302 | 3 | 4 | 3 | 3 | Late |
| SS 8309 | 3 | 3 | NA | NA | Late |
| SS MPV 57 | 4 | 2 | 4 | 3 | Late |

^aThese lines are not daylength sensitive and should not be planted early in order to avoid potential freeze damage.

^b4 - Significantly greater or better than average; 3 - Greater or better than average; 2 - Below or worse than average; 1 - Significantly below or worse than average

^cBased 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 | Barley Yellow Dwarf Virus |
| SS 520 ^b | 1 ^c | 3 | 3 | 1 | 4 | 3 |
| FEATHERSTONE 176 | 1 | 4 | 2 | 3 | 3 | 4 |
| SISSON | 1 | 3 | 1 | 1 | 4 | 3 |
| PIONEER BRAND 26R24 | 1 | 3 | 3 | 1 | 4 | 4 |
| USG 3706 | 1 | 3 | 4 | 4 | 1 | 3 |
| USG 3209 ^b | 3 | 3 | 1 | 3 | 2 | 4 |
| VIGORO Tribute | 4 | 4 | 4 | 1 | 4 | 3 |
| McCormick | 3 | 4 | 1 | 2 | 3 | 4 |
| SS 8404 | 4 | 2 | 3 | 1 | 3 | 4 |
| VIGORO V9510 | 3 | 2 | 2 | 1 | 2 | 3 |
| Chesapeake | 3 | 4 | 2 | 1 | 3 | 3 |
| PIONEER BRAND 26R15 | 4 | 3 | 4 | 4 | 2 | 4 |
| VIGORO Dominion | 3 | 4 | 3 | 4 | 2 | 3 |
| SS 560 | 3 | 2 | 2 | 1 | 3 | 3 |
| PIONEER BRAND 26R12 | 2 | 3 | 2 | 2 | 3 | 3 |
| USG 3665 ^d | 3 | 3 | 4 | 3 | 3 | 3 |
| SS 8302 | 4 | 3 | 2 | 4 | 2 | 2 |
| SS 8309 | 4 | 3 | 2 | 2 | 3 | 3 |
| SS MPV 57 | 3 | 2 | 2 | 1 | 4 | 4 |

^aFHB -Fusarium head blight
^bThese lines are not daylength sensitive and should not be planted early in order to avoid potential freeze damage.
^c4 - Significantly better than average; 3 - Better than average; 2 - Worse than average; 1 - Significantly worse than average
^dBased on performance over only two season and may be less reliable than other recommendations.

Recommended Barley Varieties

| | Hulled Barley | | | | Hulless Barley | |
|----------------------------------|---------------------------|---------------|--------------|---------------------|-----------------------|------------|
| | Nomini^a | Callao | Price | Thoroughbred | Doyce | Eve |
| Adapted Regions | | | | | | |
| Coastal Plain | | X | X | X | X | X |
| Piedmont, South of James River | | X | X | X | X | X |
| Piedmont, North of James River | | X | X | X | X | X |
| West of Blue Ridge | X | X | X | X | X | X |
| Agronomic Characteristics | | | | | | |
| Yield | 3 ^b | 3 | 3 | 4 | 3 | 3 |
| Test Weight | 1 | 4 | 3 | 4 | 2 | 4 |
| Lodging | 2 | 1 | 3 | 1 | 2 | 3 |
| Relative Height | 4 | 1 | 2 | 3 | 3 | 2 |
| Relative Heading | Avg | Early | Avg | Late | Avg | Early |
| Grain Protein, % | 8.6 | 8.6 | 8.4 | 7.8 | 8.6 | 9.3 |
| Starch, % | 54.7 | 56.3 | 55.2 | 58.9 | 63.7 | 62.1 |

^aNomini barley has low test weight. It is not recommended in eastern Virginia because low test weight grain is unsuitable for export or domestic non-ruminant feed markets.

^b4 - Significantly greater or better than average; 3 - Greater or better than average; 2 - Below or worse than average; 1 - Significantly below or worse than average

Barley and Wheat Entries

Commercial Barley Entries

Virginia Tech and Virginia Crop Improvement Association, 9142 Atlee Station Road, Mechanicsville, VA 23116 –Barsoy, Callao, Doyce, Eve, H-585, Price, Thoroughbred, and Wysor.

Commercial and Experimental Wheat Entries

AgriPro COKER, PO Box 411, 520 East 1050 South, Brookston, IN 47923 – Branson, Coker 9184, Coker 9436, Coker 9553, AgriPro W3177, Magnolia, and Panola.

AgSouth Genetics, PO Box 72246, Albany, GA 31721-2246 – AGS 2050.

Crop Production Services, Box 1467, Galesburg, IL 61402-1467 – Dominion, Tribute, V9510, and V9713.

Featherstone Seed Company, 13941 Genito Road, Amelia, VA 23002 – Featherstone 176.

JGL, Inc., 3540 South US 231, Greencastle, IN 46135 – EXP 701 and EXP 703.

University of Georgia, 1109 Experiment Street, Griffin, GA 30223 – GA-9511231-4E25, GA-9511231-4E26, and GA-96693-4E16.

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

Michigan State University, 286 PSSB, East Lansing, MI 48824-1325 – Red Ruby.

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

Pioneer Hi-Bred International, Inc., 7501 Memorial Pkwy SW, Suite 205, Huntsville, AL 35802 – Pioneer Brand 26R12, Pioneer Brand 26R15, Pioneer Brand 26R24, Pioneer Brand 26R31, and Pioneer Brand 26R87.

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

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

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

USDA – ARS, NCSU, CB 7616, Raleigh, NC 27695 – Neuse, Neuse-USG 3592 blend, Tribute-Neuse blend, and Tribute-USG 3592 blend.

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

The authors express their appreciation to the Virginia Small Grains Check-Off Board, AgriPro COKER, Ag-South Genetics, Crop Production Services, Featherstone Seed, Inc., JGL, Inc., Pioneer, A Dupont Company, Renwood Farms, Inc., Southern States Cooperative, UniSouth Genetics, Inc., and the Virginia Crop Improvement Association for their financial support of the Small Grains Variety Testing Program at Virginia Tech.

These trials were conducted and summarized by the following Virginia Tech employees: Wade Thomason, Extension agronomist, grains; Carl Griffey, small grains breeder; Harry Behl, agricultural supervisor; Elizabeth Rucker, research associate. These location supervisors also participated in the trials: Tom Custis (Painter); Mr. Bobby Ashburn (Holland); Bob Pitman and Mark Vaughn (Warsaw); Ned Jones (Blackstone); Carl Griffey, Wynse Brooks, Joe Paling, and Bryan Will (Blacksburg); Bobby Clark (Shenandoah Valley); and David Starmer, Steve Gulick, and Alvin Hood (Orange).

Introduction

The following tables present results from barley and wheat varietal tests conducted in Virginia in 2005-2007. 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

Planting conditions for the 2006-2007 small-grain crop ranged from acceptable soil moisture to excessively wet in some southeastern counties. Forty-two percent of the small grain-crop was planted by October 29, which was exactly the five-year mean. Rain and unseasonably warm temperatures in early winter favored small-grain development, especially helping later planted stands. 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). Late winter brought unseason-

ably cool temperatures and dry weather with February and March rainfall at 70 percent of normal (Figure 2). Cold damage and the dry spring resulted in the wheat crop being rated 54 percent good and 27 percent fair.

The “Easter Freeze” resulted in some damage to wheat and was especially hard on barley fields, but the Virginia crop overall fared much better than many of our neighbors. More damage was reported in early-heading cultivars.

Dry conditions at harvest time facilitated a timely harvest with the USDA reporting the wheat harvest 12 percent ahead of normal on July 1. These warm and dry conditions resulted in slightly smaller kernels in most instances. Overall quality of the 2007 crop was good. Test weight averaged 0.27 lb/bu more than the 2006 crop, largely because dry conditions allowed continued harvest without weathering. Grain protein was 0.11 percent higher in 2007 than in 2006, also due to warm and dry conditions during grain fill.

Virginia producers planted an estimated 53,000 acres of barley in 2006-07, 5,000 acres less than the previous year. An estimated 35,000 acres were harvested with an average yield of 73 bushels per acre. This is four bushels per acre less than the long-term average of 2000-2006. Planted acres for wheat were estimated at 190,000 acres in 2006-07 which was up 40,000 acres from the previous year and 22,000 acres more than the 2000-2006 mean. The harvested area in 2006-07 was estimated at 185,000 acres, up 12 percent over the previous two seasons. The statewide average yield was estimated at 67 bushels per acre, seven bushels per acre higher than the five-year average (60 bushels per acre). Overall wheat production is expected to be near 12.4 million bushels.

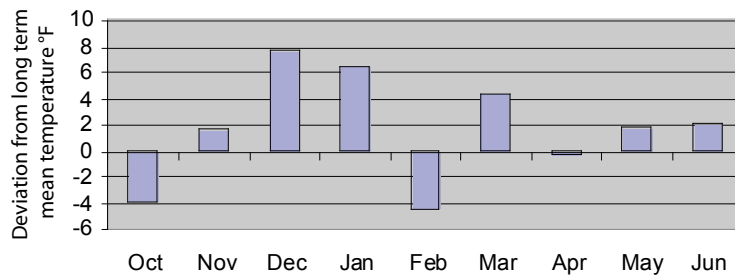


Figure 1.

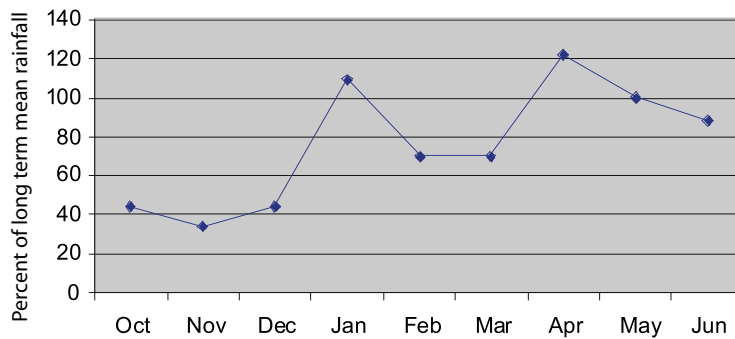


Figure 2.

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. All 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. Continued efforts will be focused on the development of hulless barley varieties for specific end-use markets benefiting producers in the Mid-Atlantic Region.

The three-year (2005-2007) average yield for Doyce hulless barley in Virginia was 76 bushels per acre with a test weight of 55.3 pounds per bushel. The newly released Eve hulless barley averaged 75 bushels per acre, but the test weight was significantly higher at 58.3 pounds per bushel.

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 test at Holland was 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 revival of international market opportunities and/or development of barley varieties that livestock feeders desire.

The three-year average yields of Thoroughbred hulled barley were 124 bushels per acre with an average test weight of 47.2 pounds per bushel compared to the mean yield of 107 bushels per acre and a test weight of 46.3 pounds per bushel for the mean of all cultivars tested.

Summary of barley management practices for the 2007 harvest season

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

Blacksburg - Planted October 5, 2006. Preplant fertilizer was 30-60-80 in October. Site was fertilized with 50 gal N with 0.5 oz Harmony Extra® on February 28, 2007, and again on March 26. Harvest occurred on June 11-13.

Blackstone - Planted October 24, 2006. Preplant fertilizer was 30 lb N using 500 lb 6-6-18 on October 24. Site was fertilized with 40 lb N using 260 lb 15.5-0-0 on February 7, 2007, and sprayed with 0.5 oz Harmony Extra® on February 12. Site was fertilized with 40 lb N using 118 lb 34-0-0 March 15. Site was sprayed with 2.56 oz Warrior® April 26. Harvest occurred on June 7.

Painter - Planted November 2-3, 2006. Preplant fertilizer was 500 lb 5-10-10. Site was fertilized with 60 lb N using 30%UAN and 0.4 oz Harmony Extra® March 13, 2007. Site was fertilized with 30 lb N March 27. Harvest occurred on June 13.

Warsaw - Planted October 15, 2006. Preplant fertilizer was 30-80-80-5 applied October 14. Site was sprayed with 0.4 oz Finesse® and fertilized at 25 lb N using 12-0-0-1.5 on December 19. Fertilization occurred at 25 lb N on February 22, 2007, using 12-0-0-1.5 and at 45 lb N on March 28 using 24-0-0-3. Harvest occurred June 6-7.

Holland - Planted no-till October 26, 2006. Preplant fertilization was 350 lb 9-16-31-3 on October 25. Site was fertilized with 60 lb N and sprayed with 0.6 oz Harmony Extra® February 10, 2007. Site was sprayed with 3 oz Warrior® on April 24. Site was fertilized with 40 lb N March 14. Harvest occurred on June 8.

Orange - Planted October 23, 2006. Preplant fertilization was 23-60-30-30S on October 12. Sixty lb N and Harmony Extra® at 0.4 oz were applied March 9, 2007. Harvest occurred on June 7.

Table 1. Summary of performance of hulless entries in the Virginia Tech Barley Test over locations, 2007 harvest.

| Hulless Lines | Yield (Bu/a) (5) | Test Weight (Lb/bu) (5) | Date Headed (Mar31+) (3) | Height (In) (3) | Lodging (0.2-10) (4) | Net Blotch (0-9) (3) | Leaf Rust (0-9) (4) | Spot Blotch (0-9) (4) | Spring Freeze (0-9) (1) |
|---------------|------------------------|----------------------------------|-----------------------------------|-----------------------|----------------------------|-------------------------------|------------------------------|--------------------------------|----------------------------------|
| VA04H-53 | 69 + | 56.9 | 27 + | 35 + | 2.6 + | 2 - | 4 | 2 | 1 - |
| VA03H-100 | 69 + | 56.4 | 26 | 39 + | 1.2 | 4 | 5 + | 3 | 2 |
| VA03H-61 | 68 + | 60.0 + | 27 + | 35 + | 1.3 | 3 - | 3 - | 3 | 1 - |
| VA05H-147 | 68 + | 57.2 | 27 + | 37 + | 1.4 | 3 - | 3 - | 3 | 2 |
| VA03H-64 | 64 | 56.7 | 25 - | 35 + | 2.2 + | 4 | 5 + | 3 | 2 |
| VA04H-25 | 63 | 58.2 + | 25 - | 34 | 1.6 | 3 - | 2 - | 2 - | 2 |
| VA03H-58 | 62 | 58.1 + | 27 + | 32 - | 3.7 + | 3 - | 4 | 3 | 1 - |
| VA05H-162 | 62 | 57.7 + | 27 + | 35 + | 0.3 - | 4 | 5 + | 3 | 2 |
| VA05H-161 | 62 | 57.1 | 27 + | 36 + | 0.7 - | 3 - | 6 + | 3 | 3 + |
| VA04H-113 | 62 | 56.3 | 25 - | 33 - | 0.7 - | 4 | 3 - | 3 | 4 + |
| VA04H-111 | 62 | 56.3 | 25 - | 32 - | 0.8 - | 3 - | 3 - | 2 - | 5 + |
| VA01H-125 | 61 | 57.3 | 23 - | 28 - | 2.0 | 6 + | 5 + | 5 + | 0 - |
| VA04H-114 | 61 | 55.7 - | 25 - | 33 - | 0.7 - | 4 | 2 - | 2 - | 4 + |
| Doyce | 61 | 53.6 - | 25 - | 31 - | 2.3 + | 6 + | 1 - | 5 + | 5 + |
| VA05H-120 | 60 | 56.6 | 26 | 35 + | 0.5 - | 3 - | 5 + | 3 | 2 |
| VA05H-59 | 59 - | 57.3 | 28 + | 32 - | 0.9 - | 5 + | 3 - | 4 + | 2 |
| Eve | 58 - | 57.9 + | 24 - | 33 - | 0.6 - | 4 | 4 | 3 | 2 |
| VA05H-158 | 58 - | 56.6 | 26 | 33 - | 0.5 - | 3 - | 5 + | 3 | 3 + |
| VA05H-159 | 57 - | 57.1 | 26 | 34 | 0.2 - | 5 + | 3 - | 3 | 2 |
| H-585 | 57 - | 56.3 | 24 - | 34 | 0.9 - | 6 + | 5 + | 5 + | 2 |
| Average | 62 | 56.8 | 26 | 34 | 1.5 | 4 | 4 | 3 | 2 |
| LSD (0.05) | 3 | 0.9 | 1 | 1 | 0.6 | 1 | 1 | 1 | 1 |
| C.V. | 9 | 2.7 | 2 | 4 | — | — | — | — | — |

Blacksburg yields and test weights are not included in over-location data.

Released cultivars are shown in bold print.

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

Varieties are ordered by descending yield averages.

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

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.

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

Table 2. Two-year average summary of performance of hulless entries in the Virginia Tech Barley Tests, 2006 and 2007 harvests.

| Hulless Lines | Yield | | Test | | Date | | Lodging (0.2-10) (10) | Net Blotch (0-9) (4) | Leaf Rust (0-9) (7) | Spot Blotch (0-9) (6) | Spring Freeze (0-9) (1) | Early Height (inches) (2) | |
|---------------|--------|------|---------|------|--------------------|-----|-----------------------------|-------------------------------|------------------------------|--------------------------------|----------------------------------|------------------------------------|----------------|
| | (Bu/a) | (13) | (Lb/bu) | (13) | Headed (Mar31+) | (7) | | | | | | | Height (In) |
| VA04H-53 | 80 + | | 58.0 | | 23 + | | 35 + | 2.8 + | 2 - | 4 + | 2 - | 1 - | 7.2 |
| VA03H-61 | 79 + | | 60.3 + | | 23 + | | 33 | 1.2 - | 3 | 2 - | 3 | 1 - | 4.8 - |
| VA03H-100 | 78 + | | 57.8 | | 22 + | | 38 + | 1.7 | 3 | 5 + | 3 | 2 | 6.9 |
| Doyce | 75 | | 55.3 - | | 20 | | 31 - | 2.6 | 5 + | 1 - | 5 + | 5 + | 8.6 + |
| VA01H-125 | 75 | | 57.9 | | 18 - | | 27 - | 2.1 | 5 + | 4 + | 5 + | 0 - | 7.5 |
| VA03H-64 | 75 | | 57.7 | | 21 + | | 35 + | 2.2 | 3 | 5 + | 3 | 2 | 6.8 |
| Eve | 73 | | 58.3 | | 18 - | | 33 | 1.4 - | 4 + | 3 | 3 | 2 | 9.0 + |
| VA04H-111 | 72 - | | 57.6 | | 20 | | 33 | 1.5 - | 3 | 2 - | 2 - | 5 + | 9.4 + |
| VA04H-25 | 72 - | | 59.2 + | | 20 | | 34 + | 1.4 - | 2 - | 2 - | 2 - | 2 | 8.7 + |
| VA03H-58 | 71 - | | 58.9 + | | 23 + | | 31 - | 4.2 + | 3 | 3 | 3 | 1 - | 5.5 - |
| H-585 | 69 - | | 56.9 - | | 18 - | | 33 | 1.5 - | 5 + | 5 + | 4 + | 2 | 8.4 |
| Average | 75 | | 58.0 | | 20 | | 33 | 2.1 | 3 | 3 | 3 | 2 | 7.5 |
| LSD (0.05) | 3 | | 0.5 | | 1 | | 1 | 0.6 | 1 | 1 | 1 | 1 | 1.0 |
| C.V. | 9 | | 2.3 | | 4 | | 5 | — | — | — | — | — | 13.3 |

Released cultivars are shown in bold print.

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

Varieties are ordered by descending yield averages.

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

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.

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

Table 3. Three-year average summary of performance of hulless entries in the Virginia Tech Barley Tests, 2005, 2006, and 2007 harvests.

| Hulless Lines | Yield | | Test | | Date | | Lodging (0.2-10) (14) | Net Blotch (0-9) (5) | Leaf Rust (0-9) (9) | Spot Blotch (0-9) (7) | Spring Freeze (0-9) (1) | Early Height (inches) (2) | |
|---------------|--------|------|---------|------|--------------------|------|-----------------------------|-------------------------------|------------------------------|--------------------------------|----------------------------------|------------------------------------|----------------|
| | (Bu/a) | (18) | (Lb/bu) | (18) | Headed (Mar31+) | (10) | | | | | | | Height (In) |
| Doyce | 76 | | 55.3 - | | 21 + | | 32 - | 2.5 + | 5 | 1 - | 4 | 5 + | 8.6 |
| VA01H-125 | 75 | | 57.6 + | | 19 - | | 28 - | 1.8 | 6 + | 4 + | 4 | 0 - | 7.5 |
| Eve | 75 | | 58.3 + | | 20 | | 34 + | 1.3 - | 4 - | 3 | 3 - | 2 | 9.0 |
| H-585 | 70 - | | 56.7 | | 19 - | | 34 + | 1.3 - | 5 | 4 + | 4 | 2 | 8.4 |
| Average | 74 | | 57.0 | | 20 | | 32 | 1.7 | 5 | 3 | 4 | 2 | 8.4 |
| LSD (0.05) | 3 | | 0.4 | | 1 | | 1 | 0.4 | 1 | 1 | 1 | 1 | 1.1 |
| C.V. | 11 | | 2.4 | | 4 | | 5 | — | — | — | — | — | 12.3 |

Released cultivars are shown in bold print.

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

Varieties are ordered by descending yield averages.

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

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.

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

Table 4. Summary of performance of hulless entries in the Virginia Tech Barley Test planted no-till at the Tidewater AREC, Holland, Va., 2007 harvest.

| Hulless Lines | Yield (Bu/a) | Test Weight (Lb/bu) | Lodging (0.2-10) | Net Blotch (0-9) | Leaf Rust (0-9) | Spot Blotch (0-9) |
|---------------|-----------------|---------------------------|---------------------|------------------------|-----------------------|-------------------------|
| VA05H-158 | 57 + | 58.5 | 0.4 | 4 - | 4 | 5 + |
| VA04H-111 | 57 + | 57.3 | 0.9 | 4 - | 3 | 2 - |
| VA05H-120 | 56 | 57.1 | 0.3 - | 3 - | 4 | 5 + |
| VA05H-162 | 54 | 59.1 | 0.4 | 5 | 4 | 6 + |
| VA04H-53 | 54 | 57.2 | 5.4 + | 1 - | 4 | 3 - |
| VA03H-100 | 53 | 57.0 | 2.2 | 6 + | 4 | 4 |
| VA03H-58 | 53 | 56.5 | 2.8 | 3 - | 3 | 3 - |
| VA05H-147 | 52 | 56.5 | 1.6 | 4 - | 3 | 4 |
| VA04H-113 | 52 | 57.6 | 0.8 | 4 - | 3 | 4 |
| VA03H-61 | 51 | 59.6 + | 3.2 | 4 - | 2 | 4 |
| VA05H-161 | 50 | 58.2 | 0.8 | 6 + | 4 | 5 + |
| VA04H-25 | 49 | 59.3 | 4.1 + | 3 - | 3 | 3 - |
| VA05H-159 | 48 | 56.6 | 0.2 - | 5 | 3 | 4 |
| H-585 | 48 | 56.3 | 1.0 | 6 + | 4 | 3 - |
| VA03H-64 | 47 | 56.5 | 4.7 + | 5 | 4 | 5 + |
| VA05H-59 | 47 | 56.3 | 1.5 | 6 + | 4 | 4 |
| Eve | 47 | 58.0 | 0.3 - | 4 - | 3 | 3 - |
| VA04H-114 | 47 | 56.6 | 0.8 | 5 | 3 | 2 - |
| Doyce | 46 | 54.8 - | 2.9 | 7 + | 1 - | 5 + |
| VA01H-125 | 38 - | 55.5 - | 6.8 + | 8 + | 4 | 5 + |
| Average | 50 | 57.2 | 2.0 | 5 | 3 | 4 |
| LSD (0.05) | 7 | 1.2 | 1.7 | 1 | 2 | 1 |
| C.V. | 10 | 1.4 | — | — | — | — |

Released cultivars are shown in bold print.

Varieties are ordered by descending yield averages.

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

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.

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

Table 5. Summary of performance of hulless entries in the Virginia Tech Barley Test, Eastern Virginia AREC, Warsaw, Va., 2007 harvest.

| Hulless Lines | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Leaf Rust (0-9) | Spot Blotch (0-9) |
|---------------|-----------------|---------------------------|----------------------------|----------------|---------------------|-----------------------|-------------------------|
| VA03H-100 | 87 + | 58.7 | 25 + | 40 + | 2.0 | 3 | 2 - |
| VA05H-147 | 85 + | 58.1 | 25 + | 38 + | 2.0 | 2 | 2 - |
| VA03H-64 | 82 + | 58.1 | 24 | 37 + | 4.3 + | 4 | 3 |
| VA05H-162 | 78 | 59.5 + | 26 + | 38 + | 0.7 | 4 | 3 |
| VA04H-113 | 78 | 57.7 - | 24 | 36 | 1.1 | 2 | 3 |
| VA04H-111 | 78 | 58.6 | 23 - | 35 | 0.6 | 2 | 3 |
| VA01H-125 | 77 | 59.5 + | 21 - | 30 - | 1.7 | 3 | 5 + |
| VA04H-114 | 77 | 58.1 | 23 - | 34 | 0.6 | 1 - | 2 - |
| VA05H-161 | 76 | 58.9 | 25 + | 38 + | 1.4 | 5 + | 3 |
| VA04H-53 | 76 | 58.1 | 27 + | 35 | 4.5 + | 2 | 2 - |
| VA04H-25 | 76 | 58.9 | 24 | 37 + | 0.9 | 2 | 1 - |
| VA05H-120 | 75 | 58.9 | 23 - | 38 + | 0.5 | 4 | 3 |
| Doyce | 74 | 56.9 - | 23 - | 33 - | 3.8 | 1 - | 6 + |
| VA05H-59 | 73 | 58.1 | 26 + | 33 - | 2.1 | 2 | 4 + |
| VA03H-61 | 72 | 60.0 + | 27 + | 35 | 2.8 | 3 | 3 |
| H-585 | 70 | 57.7 - | 23 - | 34 | 2.8 | 5 + | 4 + |
| VA05H-159 | 68 | 58.0 | 23 - | 35 | 0.3 | 2 | 4 + |
| VA05H-158 | 65 - | 59.1 | 24 | 35 | 0.4 | 5 + | 2 - |
| Eve | 64 - | 59.2 | 22 - | 33 - | 0.6 | 3 | 3 |
| VA03H-58 | 53 - | 57.9 | 26 + | 32 - | 6.7 + | 2 | 3 |
| Average | 74 | 58.5 | 24 | 35 | 2.0 | 3 | 3 |
| LSD (0.05) | 7 | 0.8 | 1 | 2 | 2.0 | 2 | 1 |
| C.V. | 7 | 0.9 | 2 | 4 | — | — | — |

Released cultivars are shown in bold print.

Varieties are ordered by descending yield averages.

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

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.

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

Table 6. Summary of performance of hulless entries in the Virginia Tech Barley Test, Eastern Shore AREC, Painter, Va., 2007 harvest.

| Hulless Lines | Yield (Bu/a) | Test Weight (Lb/bu) | Lodging (0.2-10) | Net Blotch (0-9) | Leaf Rust (0-9) | Spot Blotch (0-9) |
|---------------|-----------------|---------------------------|---------------------|------------------------|-----------------------|-------------------------|
| Doyce | 99 + | 56.8 - | 4.3 + | 4 + | 1 - | 3 + |
| VA04H-53 | 94 + | 59.5 | 1.5 | 2 | 5 | 2 |
| VA03H-64 | 93 | 59.9 | 1.3 | 3 | 4 | 2 |
| VA03H-61 | 93 | 61.5 + | 0.2 | 3 | 3 | 2 |
| VA04H-111 | 93 | 59.9 | 2.1 | 2 | 4 | 1 - |
| VA04H-114 | 91 | 59.2 - | 1.7 | 2 | 2 - | 2 |
| VA04H-113 | 91 | 60.0 | 1.2 | 2 | 2 - | 2 |
| VA03H-100 | 90 | 60.1 | 1.1 | 2 | 6 + | 1 - |
| VA05H-147 | 89 | 59.7 | 2.5 | 2 | 4 | 2 |
| VA05H-120 | 88 | 60.5 | 1.3 | 2 | 4 | 2 |
| VA01H-125 | 86 | 59.2 - | 1.2 | 4 + | 6 + | 3 + |
| VA05H-161 | 85 | 60.2 | 0.7 | 2 | 7 + | 2 |
| VA04H-25 | 85 | 61.5 + | 2.5 | 1 - | 2 - | 2 |
| VA03H-58 | 83 | 59.7 | 5.6 + | 2 | 5 | 1 - |
| Eve | 82 | 60.2 | 0.8 | 3 | 6 + | 3 + |
| VA05H-162 | 82 | 60.7 | 0.2 | 2 | 5 | 2 |
| VA05H-158 | 81 | 60.4 | 1.2 | 2 | 5 | 2 |
| VA05H-159 | 80 | 60.2 | 0.2 | 4 + | 3 | 2 |
| H-585 | 76 - | 58.9 - | 0.2 | 3 | 5 | 3 + |
| VA05H-59 | 71 - | 59.8 | 0.2 | 4 + | 3 | 3 + |
| Average | 86 | 59.9 | 1.5 | 2 | 4 | 2 |
| LSD (0.05) | 9 | 0.6 | 1.6 | 1 | 2 | 1 |
| C.V. | 7 | 0.7 | — | — | — | — |

Released cultivars are shown in bold print.

Varieties are ordered by descending yield averages.

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

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.

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

Table 7. Summary of performance of hulless entries in the Virginia Tech Barley Test, Northern Piedmont AREC, Orange, Va., 2007 harvest.

| Hulless Lines | Yield (Bu/a) | Test | Date | Height (In) | Lodging (0.2-10) |
|---------------|-----------------|-------------------|--------------------|----------------|---------------------|
| | | Weight (Lb/bu) | Headed (Mar31+) | | |
| VA03H-100 | 67 | 57.5 | 25 | 39 + | 0.2 |
| VA05H-147 | 65 | 57.1 | 27 + | 36 + | 3.2 + |
| VA04H-53 | 65 | 57.0 | 27 + | 34 | 0.2 |
| VA04H-113 | 65 | 56.0 | 24 - | 34 | 0.2 |
| VA03H-58 | 64 | 57.9 | 26 + | 32 | 0.2 |
| VA04H-114 | 63 | 56.4 | 25 | 34 | 0.2 |
| Eve | 62 | 57.2 | 24 - | 34 | 0.6 |
| VA05H-161 | 61 | 56.8 | 27 + | 36 + | 0.2 |
| VA03H-61 | 61 | 59.5 + | 26 + | 34 | 0.2 |
| VA05H-120 | 59 | 56.5 | 27 + | 34 | 0.2 |
| VA05H-59 | 57 | 57.0 | 27 + | 32 | 1.6 |
| VA01H-125 | 56 | 57.1 | 22 - | 26 - | 0.2 |
| VA03H-64 | 55 | 56.3 | 24 - | 33 | 0.4 |
| Doyce | 55 | 54.1 - | 23 - | 29 - | 0.2 |
| VA04H-25 | 54 | 58.3 + | 24 - | 34 | 0.8 |
| H-585 | 54 | 55.4 - | 22 - | 35 | 0.2 |
| VA04H-111 | 53 | 55.9 | 24 - | 33 | 0.2 |
| VA05H-159 | 53 | 58.0 | 27 + | 32 | 0.2 |
| VA05H-162 | 50 | 57.2 | 27 + | 34 | 0.2 |
| VA05H-158 | 48 | 56.4 | 27 + | 32 | 0.2 |
| Average | 58 | 56.9 | 25 | 33 | 0.6 |
| LSD (0.05) | 11 | 1.3 | 1 | 3 | 1.3 |
| C.V. | 12 | 1.5 | 3 | 6 | — |

Released cultivars are shown in bold print.

Varieties are ordered by descending yield averages.

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

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.

Table 8. Summary of performance of hulless entries in the Virginia Tech Barley Test, Southern Piedmont AREC, Blackstone, Va., 2007 harvest.

| Hulless Lines | Yield (Bu/a) | Test Weight (Lb/bu) |
|---------------|-----------------|---------------------------|
| Doyce | 59 | 56.6 |
| VA03H-100 | 57 | 58.5 |
| VA03H-61 | 56 | 59.4 |
| VA05H-158 | 56 | 59.4 |
| VA04H-111 | 56 | 58.3 |
| VA05H-162 | 55 | 59.9 |
| VA03H-58 | 54 | 59.3 |
| VA04H-53 | 54 | 58.8 |
| VA05H-161 | 54 | 58.5 |
| VA05H-59 | 52 | 59.3 |
| VA04H-113 | 52 | 58.4 |
| VA01H-125 | 52 | 57.9 |
| VA03H-64 | 52 | 57.9 |
| Eve | 51 | 59.4 |
| VA05H-147 | 50 | 55.1 - |
| VA05H-159 | 49 | 58.6 |
| VA04H-25 | 47 | 60.0 |
| VA04H-114 | 47 | 57.8 |
| H-585 | 46 | 57.5 |
| VA05H-120 | 44 | 59.2 |
| Average | 52 | 58.5 |
| LSD (0.05) | 9 | 2.6 |
| C.V. | 11 | 3.0 |

Released cultivars are shown in bold print.

Varieties are ordered by descending yield averages.

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

Table 9. Summary of performance of hulless entries in the Virginia Tech Barley Test, Kentland Farm, Blacksburg, Va., 2007 harvest.

| Hulless Lines | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Net Blotch (0-9) | Leaf Rust (0-9) | Spot Blotch (0-9) | Spring Freeze (0-9) |
|---------------|-----------------|---------------------------|----------------------------|----------------|---------------------|------------------------|-----------------------|-------------------------|---------------------------|
| VA03H-61 | 80 + | 59.9 + | 28 + | 36 + | 0.2 | 3 - | 4 - | 4 | 1 - |
| VA04H-53 | 73 + | 51.1 | 28 + | 36 + | 0.3 | 3 - | 7 + | 2 - | 1 - |
| VA05H-147 | 71 + | 56.6 + | 28 + | 36 + | 0.2 | 4 - | 5 | 4 | 2 |
| VA03H-58 | 63 + | 57.2 + | 28 + | 32 - | 1.1 + | 5 | 6 + | 5 + | 1 - |
| VA01H-125 | 61 + | 54.2 | 25 - | 27 - | 0.2 | 7 + | 5 | 6 + | 0 - |
| VA03H-100 | 60 | 46.9 - | 28 + | 37 + | 0.2 | 4 - | 6 + | 5 + | 2 |
| VA03H-64 | 59 | 52.3 | 27 | 35 + | 0.4 | 4 - | 7 + | 4 | 2 |
| VA04H-25 | 59 | 52.0 | 27 | 31 - | 0.2 | 4 - | 3 - | 4 | 2 |
| VA05H-162 | 52 | 49.9 | 28 + | 34 + | 0.2 | 5 | 7 + | 4 | 2 |
| VA05H-159 | 52 | 51.4 | 27 | 34 + | 0.2 | 5 | 5 | 4 | 2 |
| VA05H-59 | 50 | 53.3 | 30 + | 33 | 0.2 | 6 + | 6 + | 5 + | 2 |
| Eve | 50 | 53.4 | 26 - | 33 | 0.2 | 5 | 5 | 5 + | 2 |
| VA05H-161 | 49 | 50.0 | 28 + | 33 | 0.2 | 3 - | 8 + | 4 | 3 + |
| H-585 | 49 | 52.4 | 26 - | 32 - | 0.2 | 7 + | 6 + | 7 + | 2 |
| VA05H-158 | 48 | 46.2 - | 27 | 32 - | 0.2 | 4 - | 8 + | 3 - | 3 + |
| VA05H-120 | 44 - | 47.5 | 27 | 33 | 0.2 | 4 - | 7 + | 3 - | 2 |
| VA04H-113 | 42 - | 48.4 | 28 + | 30 - | 0.2 | 6 + | 4 - | 5 + | 4 + |
| Doyce | 41 - | 42.4 - | 28 + | 30 - | 0.2 | 8 + | 1 - | 6 + | 5 + |
| VA04H-114 | 41 - | 46.7 - | 28 + | 30 - | 0.2 | 4 - | 3 - | 4 | 4 + |
| VA04H-111 | 38 - | 47.6 | 28 + | 28 - | 0.2 | 4 - | 5 | 4 | 5 + |
| Average | 54 | 51.0 | 27 | 33 | 0.3 | 5 | 5 | 4 | 2 |
| LSD (0.05) | 7 | 3.6 | 1 | 1 | 0.2 | 1 | 1 | 1 | 1 |
| C.V. | 9 | 5.0 | 2 | 3 | — | — | — | — | — |

Released cultivars are shown in bold print.

Varieties are ordered by descending yield averages.

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

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.

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

Table 10. Summary of performance of hulled entries in the Virginia Tech Barley Test over locations, 2007 harvest.

| Hulled Lines | Yield (Bu/a) (5) | Test Weight (Lb/bu) (5) | Date Headed (Mar31+) (3) | Height (In) (3) | Lodging (0.2-10) (5) | Net Blotch (0-9) (3) | Leaf Rust (0-9) (4) | Spot Blotch (0-9) (4) | Spring Freeze (0-9) (1) |
|---------------------|------------------------|----------------------------------|-----------------------------------|-----------------------|----------------------------|-------------------------------|------------------------------|--------------------------------|----------------------------------|
| VA04B-180 | 110 + | 45.3 | 24 - | 31 - | 1.2 | 1 - | 5 + | 1 - | 1 - |
| VA04B-178 | 109 + | 45.0 | 24 - | 31 - | 0.8 - | 1 - | 4 | 1 - | 1 - |
| VA03B-44 | 109 + | 44.7 | 25 | 32 - | 1.3 | 2 - | 3 - | 2 | 0 - |
| VA04B-125 | 108 + | 45.7 | 25 | 34 | 2.7 | 2 - | 4 | 2 | 1 - |
| VA04B-8 | 108 + | 45.0 | 29 + | 35 + | 3.4 + | 2 - | 3 - | 2 | 2 |
| VA04B-127 | 108 + | 44.4 - | 27 + | 34 | 2.8 | 2 - | 4 | 2 | 2 |
| VA05B-97 | 107 + | 46.8 + | 25 | 33 - | 1.6 | 5 + | 4 | 4 + | 1 - |
| VA05B-64 | 107 + | 45.9 | 27 + | 34 | 3.3 + | 2 - | 4 | 2 | 1 - |
| Thoroughbred | 107 + | 45.5 | 27 + | 34 | 1.1 | 2 - | 6 + | 3 + | 2 |
| VA03B-176 | 106 + | 45.6 | 26 + | 33 - | 1.2 | 2 - | 3 - | 2 | 2 |
| VA04B-93 | 106 + | 45.0 | 25 | 33 - | 0.6 - | 2 - | 4 | 2 | 2 |
| VA04B-120 | 106 + | 43.1 - | 26 + | 34 | 2.6 | 3 | 3 - | 3 + | 2 |
| VA03B-58 | 105 + | 45.8 | 25 | 31 - | 1.2 | 2 - | 3 - | 2 | 1 - |
| VA05B-141 | 104 | 46.1 + | 23 - | 36 + | 1.9 | 4 + | 3 - | 4 + | 1 - |
| VA03B-25 | 104 | 44.8 | 28 + | 38 + | 1.4 | 1 - | 4 | 2 | 1 - |
| VA04B-62 | 103 | 45.6 | 22 - | 33 - | 3.2 + | 2 - | 3 - | 1 - | 1 - |
| Callao | 102 | 46.2 + | 23 - | 31 - | 4.3 + | 3 | 3 - | 3 + | 1 - |
| VA04B-7 | 102 | 44.2 - | 27 + | 35 + | 3.2 + | 2 - | 5 + | 1 - | 2 |
| VA03B-171 | 98 | 45.9 | 26 + | 36 + | 1.2 | 2 - | 4 | 2 | 3 + |
| VA04B-29 | 98 | 45.5 | 22 - | 32 - | 1.3 | 4 + | 5 + | 2 | 2 |
| VA04B-95 | 98 | 45.4 | 26 + | 33 - | 1.3 | 2 - | 5 + | 2 | 2 |
| VA05B-98 | 97 - | 46.4 + | 24 - | 34 | 2.7 | 5 + | 2 - | 3 + | 2 |
| VA04B-54 | 97 - | 45.3 | 25 | 33 - | 1.6 | 4 + | 2 - | 3 + | 2 |
| Price | 94 - | 45.6 | 24 - | 31 - | 0.8 - | 3 | 4 | 3 + | 3 + |
| VA96-44-304 | 94 - | 45.1 | 22 - | 30 - | 1.8 | 5 + | 4 | 4 + | 2 |
| VA92-42-46 | 92 - | 45.0 | 25 | 38 + | 1.1 | 7 + | 1 - | 5 + | 3 + |
| Wysor | 87 - | 43.4 - | 25 | 37 + | 3.0 + | 3 | 6 + | 3 + | 3 + |
| Barsoy | 71 - | 42.3 - | 22 - | 35 + | 0.9 - | 2 - | 7 + | 2 | 2 |
| Average | 101 | 45.2 | 25 | 34 | 1.9 | 3 | 4 | 2 | 2 |
| LSD (0.05) | 4 | 0.8 | 1 | 1 | 1.0 | 1 | 1 | 1 | 1 |
| C.V. | 6 | 2.8 | 2 | 4 | — | — | — | — | — |

Blacksburg yield and test weight data are not included in the over-location analysis.

Released cultivars are shown in bold print.

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

Varieties are ordered by descending yield averages.

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

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.

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

Table 11. Two-year average summary of performance of hulled entries in the Virginia Tech Barley Tests, 2006 and 2007 harvests.

| Hulled Lines | Yield | | Test | | Date | | Lodging (0.2-10) (11) | Net Blotch (0-9) (4) | Leaf Rust (0-9) (7) | Spot Blotch (0-9) (6) | Spring Freeze (0-9) (1) | Early Height (inches) (2) | | | | | | | | |
|---------------------|--------|------|---------|------|---------------------------|-----------------------|-----------------------------|-------------------------------|------------------------------|--------------------------------|----------------------------------|------------------------------------|---|---|---|-----|---|------|-----|---|
| | (Bu/a) | (13) | (Lb/bu) | (13) | Headed (Mar31+) (7) | Height (In) (7) | | | | | | | | | | | | | | |
| Thoroughbred | 123 | + | 47.2 | + | 23 | + | 33 | 1.0 | - | 2 | - | 5 | + | 3 | 2 | 7.3 | + | | | |
| VA04B-180 | 121 | + | 46.4 | | 19 | - | 31 | - | 1.8 | 1 | - | 4 | + | 1 | - | 1 | - | 6.7 | | |
| VA04B-8 | 119 | + | 46.8 | + | 25 | + | 35 | + | 3.2 | 2 | - | 3 | | 2 | - | 2 | | 5.3 | - | |
| VA03B-25 | 119 | + | 46.5 | | 25 | + | 38 | + | 1.5 | - | 1 | - | 3 | | 2 | - | 1 | - | 4.8 | - |
| VA04B-178 | 118 | + | 46.5 | | 19 | - | 31 | - | 1.3 | - | 1 | - | 4 | + | 2 | - | 1 | - | 6.6 | |
| VA04B-120 | 118 | + | 44.6 | - | 21 | | 33 | | 3.2 | 3 | | 3 | | 3 | | 2 | | 6.1 | | |
| VA04B-7 | 117 | + | 45.7 | | 23 | + | 34 | + | 2.6 | 2 | - | 4 | + | 2 | - | 2 | | 5.6 | - | |
| VA03B-44 | 117 | + | 45.5 | - | 21 | | 31 | - | 1.7 | 2 | - | 2 | - | 2 | - | 0 | - | 5.3 | - | |
| VA03B-176 | 116 | + | 47.0 | + | 21 | | 33 | | 1.8 | 2 | - | 3 | | 2 | - | 2 | | 6.1 | | |
| VA03B-58 | 114 | | 47.2 | + | 20 | - | 31 | - | 1.8 | 2 | - | 3 | | 2 | - | 1 | - | 5.6 | - | |
| VA03B-171 | 113 | | 47.5 | + | 21 | | 36 | + | 1.7 | 2 | - | 3 | | 2 | - | 3 | + | 6.7 | | |
| Callao | 111 | | 47.0 | + | 18 | - | 31 | - | 4.7 | + | 3 | | 3 | | 4 | + | 1 | - | 7.1 | |
| VA04B-54 | 111 | | 46.4 | | 21 | | 34 | + | 2.0 | 4 | + | 2 | - | 4 | + | 2 | | 6.1 | | |
| VA96-44-304 | 106 | - | 46.5 | | 17 | - | 30 | - | 2.9 | 5 | + | 4 | + | 4 | + | 2 | | 7.8 | + | |
| Price | 106 | - | 47.5 | + | 20 | - | 32 | - | 1.6 | 3 | | 3 | | 3 | | 3 | + | 6.8 | | |
| VA92-42-46 | 93 | - | 45.6 | - | 20 | - | 38 | + | 1.3 | - | 6 | + | 1 | - | 5 | + | 3 | + | 7.8 | + |
| Wysor | 92 | - | 44.6 | - | 20 | - | 37 | + | 2.7 | 3 | | 5 | + | 3 | | 3 | + | 6.9 | | |
| Barsoy | 79 | - | 42.8 | - | 16 | - | 35 | + | 1.6 | 2 | - | 7 | + | 2 | - | 2 | | 7.6 | + | |
| Average | 111 | | 46.2 | | 21 | | 33 | | 2.1 | 3 | | 3 | | 3 | | 2 | | 6.4 | | |
| LSD (0.05) | 4 | | 0.6 | | 1 | | 1 | | 0.6 | 1 | | 1 | | 1 | | 1 | | 0.8 | | |
| C.V. | 10 | | 3.0 | | 4 | | 5 | | — | — | | — | | — | | — | | 12.1 | | |

Released cultivars are shown in bold print.

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

Varieties are ordered by descending yield averages.

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

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.

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

Table 12. Three-year average summary of performance of hulled entries in the Virginia Tech Barley Tests, 2005, 2006, and 2007 harvests.

| Hulled Lines | Yield (Bu/a) (18) | Test Weight (Lb/bu) (18) | Date Headed (Mar31+) (10) | Height (In) (10) | Lodging (0.2-10) (16) | Net Blotch (0-9) (5) | Leaf Rust (0-9) (8) | Spot Blotch (0-9) (6) | Spring Freeze (0-9) (1) | Early Height (inches) (2) |
|---------------------|-------------------------|-----------------------------------|------------------------------------|------------------------|-----------------------------|-------------------------------|------------------------------|--------------------------------|----------------------------------|------------------------------------|
| | | | | | | | | | | |
| Thoroughbred | 124 + | 47.2 + | 25 + | 35 + | 0.9 - | 3 | 5 + | 3 | 2 | 7.3 |
| VA03B-176 | 118 + | 47.2 + | 23 + | 34 | 1.5 - | 3 | 3 - | 2 - | 2 | 6.1 - |
| VA03B-58 | 116 + | 47.3 + | 22 + | 32 - | 1.7 | 2 - | 3 - | 2 - | 1 - | 5.6 - |
| Callao | 112 + | 47.2 + | 19 - | 32 - | 4.8 + | 3 | 3 - | 4 + | 1 - | 7.1 |
| Price | 110 | 47.5 + | 22 + | 33 - | 1.6 | 4 + | 4 | 3 | 3 + | 6.8 |
| VA96-44-304 | 109 | 46.8 + | 18 - | 31 - | 2.6 + | 5 + | 4 | 4 + | 2 | 7.8 + |
| VA92-42-46 | 96 - | 45.7 - | 22 + | 39 + | 1.2 - | 7 + | 1 - | 5 + | 3 + | 7.8 + |
| Wysor | 96 - | 44.7 - | 22 + | 38 + | 2.3 | 3 | 5 + | 3 | 3 + | 6.9 |
| Barsoy | 82 - | 43.0 - | 18 - | 36 + | 1.6 | 2 - | 7 + | 2 - | 2 | 7.6 |
| Average | 107 | 46.3 | 21 | 34 | 2 | 3 | 4 | 3 | 2 | 7.0 |
| LSD (0.05) | 4 | 0.5 | 1 | 1 | 0.5 | 1 | 1 | 1 | 1 | 0.8 |
| C.V. | 10 | 3.2 | 5 | 6 | — | — | — | — | — | 12.1 |

Released cultivars are shown in bold print.

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

Varieties are ordered by descending yield averages.

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

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.

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

Table 13. Summary of performance of hulled entries in the Virginia Tech Barley Test planted no-till at the Tidewater AREC, Holland, Va., 2007 harvest.

| Hulled Lines | Yield (Bu/a) | Test Weight (Lb/bu) | Lodging (0.2-10) | Net Blotch (0-9) | Leaf Rust (0-9) | Spot Blotch (0-9) |
|---------------------|-----------------|---------------------------|---------------------|------------------------|-----------------------|-------------------------|
| VA04B-127 | 93 + | 43.8 | 4.1 | 2 - | 3 | 2 - |
| VA04B-178 | 92 + | 45.3 | 1.1 | 1 - | 1 | 2 - |
| Thoroughbred | 91 + | 44.8 | 0.5 - | 4 + | 4 + | 6 + |
| VA04B-180 | 90 + | 45.1 | 2.2 | 1 - | 3 | 2 - |
| VA05B-64 | 87 + | 44.9 | 4.0 | 2 - | 3 | 4 + |
| VA05B-97 | 85 | 45.9 | 3.0 | 7 + | 2 | 5 + |
| Callao | 84 | 44.8 | 6.8 + | 4 + | 1 | 4 + |
| VA03B-25 | 84 | 44.7 | 2.1 | 1 - | 2 | 2 - |
| VA04B-95 | 83 | 44.8 | 2.2 | 2 - | 3 | 4 + |
| VA04B-8 | 83 | 44.8 | 4.0 | 1 - | 1 | 2 - |
| VA04B-93 | 82 | 44.0 | 1.1 | 3 | 2 | 3 |
| VA03B-171 | 82 | 45.5 | 1.1 | 1 - | 1 | 2 - |
| VA04B-7 | 78 | 43.4 | 5.1 | 2 - | 3 | 3 |
| VA04B-125 | 78 | 44.6 | 4.7 | 1 - | 2 | 3 |
| VA03B-44 | 77 | 44.2 | 3.3 | 1 - | 1 | 2 - |
| VA04B-120 | 76 | 42.0 - | 5.2 | 5 + | 2 | 5 + |
| VA05B-141 | 74 | 45.9 | 3.1 | 5 + | 2 | 4 + |
| Price | 73 | 44.6 | 1.5 | 6 + | 2 | 4 + |
| VA96-44-304 | 72 | 44.6 | 4.4 | 8 + | 3 | 4 + |
| Wysor | 71 | 43.4 | 2.0 | 4 + | 4 + | 4 + |
| VA03B-176 | 71 | 44.2 | 1.6 | 2 - | 3 | 2 - |
| VA04B-62 | 71 | 45.1 | 5.7 + | 1 - | 1 | 1 - |
| VA04B-54 | 65 - | 44.7 | 3.2 | 5 + | 1 | 5 + |
| VA03B-58 | 65 - | 45.6 | 3.9 | 1 - | 2 | 3 |
| VA04B-29 | 65 - | 45.1 | 2.6 | 7 + | 2 | 2 - |
| VA05B-98 | 64 - | 45.4 | 3.3 | 6 + | 1 | 3 |
| Barsoy | 58 - | 42.0 - | 0.8 | 5 + | 5 + | 5 + |
| VA92-42-46 | 58 - | 43.4 | 1.2 | 8 + | 1 | 4 + |
| Average | 78 | 44.5 | 3.0 | 3 | 2 | 3 |
| LSD (0.05) | 9 | 1.7 | 2.5 | 1 | 2 | 1 |
| C.V. | 7 | 2.4 | — | — | — | — |

Released cultivars are shown in bold print.

Varieties are ordered by descending yield averages.

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

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.

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

Table 14. Summary of performance of hulled entries in the Virginia Tech Barley Test, Eastern Virginia AREC, Warsaw, Va., 2007 harvest.

| Hulled Lines | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Leaf Rust (0-9) | Spot Blotch (0-9) |
|---------------------|-----------------|---------------------------|----------------------------|----------------|---------------------|-----------------------|-------------------------|
| VA04B-120 | 130 + | 43.2 - | 24 + | 35 + | 2.2 | 2 - | 3 + |
| Thoroughbred | 129 + | 46.7 | 25 + | 33 | 0.4 - | 4 + | 3 + |
| VA04B-127 | 129 + | 46.3 | 25 + | 35 + | 1.9 | 4 + | 2 |
| VA04B-180 | 129 + | 46.2 | 23 | 31 - | 0.6 - | 4 + | 2 |
| VA04B-8 | 129 + | 46.5 | 26 + | 35 + | 2.9 + | 2 - | 1 - |
| VA04B-125 | 128 + | 47.0 | 23 | 33 | 1.3 | 3 | 2 |
| VA04B-178 | 128 + | 46.1 | 22 - | 32 | 0.5 - | 4 + | 1 - |
| VA05B-141 | 127 + | 46.4 | 22 - | 36 + | 1.3 | 2 - | 4 + |
| VA04B-7 | 126 + | 45.8 | 25 + | 35 + | 2.0 | 4 + | 1 - |
| VA04B-95 | 126 + | 46.9 | 24 + | 33 | 0.7 - | 3 | 1 - |
| VA03B-25 | 124 | 46.0 | 27 + | 38 + | 0.8 - | 4 + | 2 |
| VA04B-93 | 124 | 46.2 | 23 | 33 | 0.5 - | 4 + | 2 |
| VA03B-44 | 124 | 45.2 - | 23 | 30 - | 0.5 - | 3 | 2 |
| VA03B-176 | 124 | 47.0 | 23 | 33 | 0.7 - | 2 - | 2 |
| VA04B-62 | 123 | 46.4 | 19 - | 33 | 4.0 + | 3 | 1 - |
| VA05B-97 | 122 | 47.8 + | 23 | 32 | 1.7 | 3 | 5 + |
| VA05B-64 | 122 | 46.7 | 25 + | 33 | 3.8 + | 3 | 1 - |
| VA05B-98 | 121 | 47.2 + | 22 - | 35 + | 5.1 + | 2 - | 3 + |
| VA03B-171 | 119 | 47.8 + | 23 | 37 + | 1.1 | 3 | 2 |
| Callao | 118 | 46.8 | 20 - | 30 - | 4.5 + | 3 | 4 + |
| VA04B-29 | 118 | 45.7 | 17 - | 32 | 0.6 - | 3 | 2 |
| VA04B-54 | 118 | 46.7 | 22 - | 34 | 0.9 | 1 - | 2 |
| VA03B-58 | 113 - | 47.0 | 24 + | 30 - | 0.6 - | 2 - | 1 - |
| VA96-44-304 | 111 - | 45.1 - | 16 - | 29 - | 0.9 | 4 + | 5 + |
| Price | 111 - | 47.2 + | 22 - | 31 - | 0.5 - | 3 | 4 + |
| Wysor | 101 - | 44.1 - | 23 | 37 + | 2.4 + | 4 + | 2 |
| VA92-42-46 | 97 - | 45.9 | 22 - | 39 + | 1.4 | 2 - | 5 + |
| Barsoy | 76 - | 42.8 - | 21 - | 33 | 1.8 | 7 + | 2 |
| Average | 120 | 46.2 | 23 | 33 | 1.6 | 3 | 2 |
| LSD (0.05) | 5 | 1.0 | 1 | 2 | 0.8 | 1 | 1 |
| C.V. | 3 | 1.5 | 2 | 3 | — | — | — |

Released cultivars are shown in bold print.

Varieties are ordered by descending yield averages.

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

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.

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

Table 15. Summary of performance of hulled entries in the Virginia Tech Barley Test, Eastern Shore AREC, Painter, Va., 2007 harvest.

| Hulled Lines | Yield (Bu/a) | Test Weight (Lb/bu) | Lodging (0.2-10) | Net Blotch (0-9) | Leaf Rust (0-9) | Spot Blotch (0-9) |
|---------------------|-----------------|---------------------------|---------------------|------------------------|-----------------------|-------------------------|
| VA04B-8 | 130 + | 44.9 | 0.8 | 2 | 4 | 2 |
| VA04B-178 | 126 | 48.0 | 0.6 | 2 | 5 + | 1 - |
| Thoroughbred | 125 | 47.9 | 0.2 | 1 - | 7 + | 2 |
| VA04B-29 | 125 | 47.4 | 2.8 | 5 + | 5 + | 2 |
| VA04B-127 | 125 | 47.5 | 1.2 | 3 + | 4 | 2 |
| VA04B-180 | 124 | 47.7 | 1.0 | 2 | 5 + | 1 - |
| VA05B-64 | 124 | 48.3 | 2.2 | 3 + | 4 | 1 - |
| VA04B-120 | 124 | 44.9 | 1.8 | 3 + | 2 - | 1 - |
| VA03B-176 | 122 | 48.8 | 0.8 | 2 | 4 | 2 |
| VA03B-58 | 120 | 47.6 | 0.4 | 2 | 3 - | 1 - |
| VA04B-54 | 120 | 46.9 | 1.9 | 4 + | 1 - | 1 - |
| VA03B-25 | 118 | 47.2 | 0.2 | 2 | 4 | 2 |
| VA04B-7 | 118 | 45.1 | 1.9 | 3 + | 5 + | 1 - |
| VA04B-125 | 118 | 48.0 | 1.1 | 2 | 4 | 1 - |
| VA04B-93 | 116 | 47.3 | 0.3 | 2 | 4 | 1 - |
| VA03B-44 | 116 | 46.4 | 0.2 | 2 | 3 - | 1 - |
| VA03B-171 | 115 | 48.7 | 2.1 | 4 + | 4 | 3 + |
| VA05B-97 | 114 | 47.9 | 1.0 | 3 + | 5 + | 3 + |
| Price | 113 | 47.5 | 1.0 | 3 + | 4 | 2 |
| VA04B-95 | 113 | 47.6 | 0.5 | 2 | 4 | 1 - |
| VA96-44-304 | 111 | 47.1 | 2.5 | 4 + | 3 - | 3 + |
| Callao | 111 | 47.5 | 4.8 + | 2 | 3 - | 2 |
| VA04B-62 | 111 | 46.9 | 5.1 + | 1 - | 4 | 1 - |
| VA92-42-46 | 101 - | 46.0 | 0.2 | 5 + | 1 - | 3 + |
| VA05B-141 | 96 - | 47.7 | 2.2 | 2 | 4 | 4 + |
| Wysor | 96 - | 44.3 - | 0.4 | 2 | 6 + | 3 + |
| VA05B-98 | 92 - | 48.8 | 4.1 + | 3 + | 2 - | 2 |
| Barsoy | 91 - | 45.6 | 0.9 | 1 - | 7 + | 2 |
| Average | 115 | 47.1 | 1.5 | 2 | 4 | 2 |
| LSD (0.05) | 14 | 2.3 | 1.6 | 1 | 1 | 1 |
| C.V. | 7 | 3.0 | — | — | — | — |

Released cultivars are shown in bold print.

Varieties are ordered by descending yield averages.

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

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.

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

Table 16. Summary of performance of hulled entries in the Virginia Tech Barley Test, Northern Piedmont AREC, Orange, Va., 2007 harvest.

| Hulled Lines | Yield (Bu/a) | Test | Date | Height (In) | Lodging (0.2-10) |
|---------------------|-----------------|-------------------|--------------------|----------------|---------------------|
| | | Weight (Lb/bu) | Headed (Mar31+) | | |
| VA03B-176 | 149 + | 44.6 | 27 + | 37 | 2.4 |
| VA03B-44 | 139 + | 44.2 | 27 + | 35 | 2.3 |
| VA05B-97 | 138 + | 46.4 + | 26 | 36 | 2.0 |
| VA04B-180 | 135 | 43.8 | 24 - | 34 - | 1.9 |
| VA04B-120 | 134 | 41.7 | 27 + | 36 | 3.4 |
| VA04B-125 | 133 | 44.7 | 26 | 37 | 5.8 |
| VA04B-178 | 133 | 44.6 | 23 - | 35 | 1.4 |
| VA03B-171 | 132 | 44.9 | 27 + | 38 + | 1.2 |
| VA05B-64 | 131 | 44.4 | 28 + | 36 | 6.0 |
| VA05B-141 | 130 | 44.8 | 24 - | 38 + | 2.2 |
| VA04B-93 | 128 | 44.0 | 26 | 35 | 0.8 |
| VA04B-95 | 124 | 44.3 | 27 + | 35 | 2.8 |
| VA92-42-46 | 124 | 43.0 | 27 + | 41 + | 1.4 |
| VA04B-62 | 124 | 44.2 | 24 - | 35 | 0.5 |
| VA03B-25 | 122 | 42.9 | 27 + | 41 + | 3.1 |
| Price | 121 | 45.8 | 24 - | 34 - | 0.4 |
| VA03B-58 | 119 | 44.5 | 25 - | 34 - | 0.6 |
| VA96-44-304 | 119 | 44.1 | 23 - | 35 | 0.4 |
| VA04B-29 | 119 | 43.8 | 25 - | 33 - | 0.3 |
| VA04B-54 | 118 | 45.4 | 27 + | 37 | 1.4 |
| VA05B-98 | 118 | 45.5 | 25 - | 36 | 0.2 |
| Thoroughbred | 117 | 42.8 | 27 + | 37 | 3.9 |
| VA04B-8 | 116 | 44.3 | 30 + | 36 | 9.0 + |
| VA04B-7 | 115 | 43.0 | 27 + | 37 | 6.8 + |
| VA04B-127 | 115 | 42.1 | 27 + | 36 | 6.3 |
| Wysor | 112 | 41.1 - | 27 + | 38 + | 8.0 + |
| Callao | 110 | 42.8 | 24 - | 33 - | 4.7 |
| Barsoy | 86 - | 41.0 - | 22 - | 39 + | 0.2 |
| Average | 122 | 43.9 | 26 | 36 | 2.8 |
| LSD (0.05) | 14 | 2.5 | 1 | 2 | 4.0 |
| C.V. | 4 | 3.6 | 3 | 3 | — |

Released cultivars are shown in bold print.

Varieties are ordered by descending yield averages.

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

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.

Table 17. Summary of performance of hulled entries in the Virginia Tech Barley Test, Southern Piedmont AREC, Blackstone, Va., 2007 harvest.

| Hulled Lines | Yield (Bu/a) | Test Weight (Lb/bu) |
|---------------------|-----------------|---------------------------|
| VA04B-180 | 101 + | 45.1 |
| VA03B-58 | 100 + | 46.3 |
| VA04B-178 | 96 + | 44.0 |
| VA05B-64 | 93 | 47.1 |
| Callao | 92 | 47.7 |
| VA04B-93 | 91 | 46.6 |
| VA04B-8 | 90 | 46.9 |
| VA04B-7 | 90 | 46.1 |
| VA04B-29 | 90 | 45.3 |
| VA04B-95 | 86 | 46.3 |
| VA04B-127 | 86 | 45.9 |
| VA96-44-304 | 86 | 45.5 |
| VA03B-25 | 86 | 45.3 |
| VA03B-176 | 86 | 44.6 |
| VA04B-120 | 86 | 44.4 |
| VA05B-97 | 85 | 47.6 |
| VA05B-141 | 84 | 46.9 |
| VA04B-62 | 82 | 45.9 |
| VA03B-44 | 82 | 44.4 |
| VA05B-98 | 81 | 46.9 |
| VA03B-171 | 81 | 46.4 |
| VA04B-125 | 80 | 46.1 |
| Price | 75 | 45.0 |
| Thoroughbred | 74 | 46.4 |
| VA04B-54 | 73 - | 44.8 |
| Wysor | 73 - | 44.6 |
| VA92-42-46 | 69 - | 46.0 |
| Barsoy | 61 - | 39.6 - |
| Average | 84 | 45.6 |
| LSD (0.05) | 11 | 2.7 |
| C.V. | 8 | 3.8 |

Released cultivars are shown in bold print.

Varieties are ordered by descending yield averages.

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

Table 18. Summary of performance of hulled entries in the Virginia Tech Barley Test, Kentland Farm, Blacksburg, Va., 2007 harvest.

| Hulled Lines | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Net Blotch (0-9) | Leaf Rust (0-9) | Spot Blotch (0-9) | Spring Freeze (0-9) |
|---------------------|--------------|---------------------|----------------------|-------------|------------------|------------------|-----------------|-------------------|---------------------|
| VA03B-44 | 113 + | 43.8 | 26 | 29 - | 0.3 - | 2 - | 4 - | 3 | 0 - |
| VA05B-141 | 103 + | 45.3 + | 24 - | 34 + | 0.7 | 4 + | 5 - | 5 + | 1 - |
| VA04B-62 | 102 + | 45.7 + | 23 - | 31 | 1.0 | 2 - | 4 - | 2 - | 1 - |
| VA03B-25 | 97 + | 42.0 - | 31 + | 36 + | 0.8 | 1 - | 6 | 1 - | 1 - |
| VA04B-8 | 96 + | 42.8 | 31 + | 35 + | 0.3 - | 2 - | 5 - | 2 - | 2 |
| VA05B-97 | 95 + | 45.6 + | 26 | 30 | 0.6 | 6 + | 7 + | 4 + | 1 - |
| Callao | 94 + | 46.6 + | 24 - | 32 | 1.0 | 4 + | 6 | 4 + | 1 - |
| VA04B-125 | 93 + | 44.8 | 25 - | 32 | 0.6 | 2 - | 7 + | 2 - | 1 - |
| VA03B-58 | 93 + | 44.1 | 26 | 30 | 0.5 | 2 - | 6 | 2 - | 1 - |
| VA92-42-46 | 92 + | 44.3 | 26 | 35 + | 1.4 + | 8 + | 1 - | 8 + | 3 + |
| VA04B-54 | 92 + | 42.5 | 26 | 30 | 0.5 | 5 + | 3 - | 6 + | 2 |
| VA05B-98 | 92 + | 45.4 + | 26 | 31 | 1.0 | 6 + | 4 - | 4 + | 2 |
| VA05B-64 | 91 | 43.3 | 28 + | 32 | 0.5 | 2 - | 6 | 2 - | 1 - |
| VA04B-93 | 87 | 42.3 - | 26 | 30 | 0.3 - | 2 - | 6 | 3 | 2 |
| Thoroughbred | 87 | 44.5 | 29 + | 31 | 0.8 | 3 | 8 + | 2 - | 2 |
| VA04B-127 | 87 | 42.0 - | 30 + | 32 | 0.6 | 1 - | 7 + | 1 - | 2 |
| VA03B-176 | 85 | 44.1 | 26 | 29 - | 0.5 | 3 | 5 - | 3 | 2 |
| VA04B-178 | 83 | 43.2 | 25 - | 28 - | 0.3 - | 1 - | 7 + | 1 - | 1 - |
| VA04B-180 | 80 | 44.4 | 26 | 28 - | 0.4 | 1 - | 8 + | 1 - | 1 - |
| VA04B-120 | 78 - | 42.7 | 26 | 33 + | 0.7 | 3 | 6 | 4 + | 2 |
| VA04B-29 | 78 - | 45.0 + | 25 - | 33 + | 0.5 | 2 - | 8 + | 2 - | 2 |
| VA04B-7 | 77 - | 41.8 - | 29 + | 32 | 0.4 | 1 - | 7 + | 1 - | 2 |
| Wysor | 75 - | 41.9 - | 26 | 35 + | 2.2 + | 4 + | 8 + | 4 + | 3 + |
| VA03B-171 | 72 - | 41.7 - | 28 + | 33 + | 0.5 | 2 - | 8 + | 2 - | 3 + |
| VA96-44-304 | 68 - | 44.3 | 25 - | 27 - | 0.7 | 5 + | 8 + | 3 | 2 |
| VA04B-95 | 68 - | 43.0 | 26 | 31 | 0.6 | 2 - | 8 + | 1 - | 2 |
| Price | 61 - | 43.4 | 26 | 29 - | 0.5 | 2 - | 9 + | 2 - | 3 + |
| Barsoy | 55 - | 42.0 - | 22 - | 32 | 0.8 | 1 - | 9 + | 1 - | 2 |
| Average | 85 | 43.7 | 26 | 31 | 0.7 | 3 | 6 | 3 | 2 |
| LSD (0.05) | 7 | 1.3 | 1 | 2 | 0.4 | 1 | 1 | 1 | 1 |
| C.V. | 6 | 2.0 | 2 | 5 | — | — | — | — | — |

Released cultivars are shown in bold print.

Varieties are ordered by descending yield averages.

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

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.

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

Section 2: Wheat Varieties

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 and Warsaw no-till) 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. Past seasons across Virginia have 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 2007 were USG 3665, Branson, Tribute, and USG 3209. Tribute had mean test weight that was also significantly higher than the test mean. The 2007 season favored later maturing varieties in general. Test weights overall were down slightly from 2006 but still averaged nearly 60 pounds per bushel. This is likely the result of warm winter temperatures, spring freeze damage, and the longer grain-fill period in the later maturing varieties. Producers who grow large acreages of wheat should plant two or more varieties having significantly different maturity dates in order to ensure a harvest of high-quality grain having 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 harvested 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, and SS 560.

USG 3665 displayed above average yields across two years.

Two locations in 2006-07, Warsaw no-till 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 general, the top performing lines in this over-location no-till summary were the same as those in the top-yielding group of the overall summary table.

Summary of wheat management practices for the 2007 harvest season

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

Blacksburg - Planted October 9, 2006. Preplant fertilizer was 30-60-80 in October. Site was fertilized with 50 gal N with 0.5 oz Harmony Extra® on February 28, 2007, and again on March 26. Harvest occurred on June 27.

Blackstone - Planted October 25, 2006. Preplant fertilizer was 30 lb N using 500 lb 6-6-18 on October 24. Site was fertilized with 40 lb N using 260 lb 15.5-0-0 on February 7, 2007, and sprayed with 0.5 oz Harmony Extra® + 4.75 oz Osprey® on February 12. Site was fertilized with 60 lb N using 176 lb 34-0-0 March 15. Site was sprayed with 2.56 oz Warrior® April 25. Harvest occurred on June 26.

Warsaw - Planted October 23, 2006. Preplant fertilizer was 30-80-80-5 applied October 14. Site was sprayed with 0.4 oz Finesse® and fertilized at 25 lb N using 12-0-0-1.5 on December 19. Fertilization occurred at 25 lb N on February 22, 2007, using 12-0-0-1.5 and at 60 lb N on March 28 using 24-0-0-3. Harvest occurred June 18.

Warsaw no-till - Planted October 19, 2006. Site application included 1 ton lime and 1.5 qt Round Up® on October 4. Preplant fertilizer was 30-80-80-5 applied October 11. Site was sprayed with 0.4 oz Finesse® and fertilized at 25 lb N using 12-0-0-1.5 on December 19. Fertilization occurred at 25 lb N on March 1, 2007, using 12-0-0-1.5 and at 60 lb N on March 30 using 24-0-0-3. Harvest occurred June 21.

Painter - Planted November 2-3, 2006. Preplant fertilizer was 500 lb 5-10-10. Site was fertilized with 60 lb N using 30%UAN and 0.4 oz Harmony Extra® March 13, 2007. Site was fertilized with 50 lb N March 27. Harvest occurred on June 19, 2007.

Holland - Planted no-till October 26, 2006. Preplant fertilization was 350 lb 9-16-31-3 on October 25. Site was fertilized with 60 lb N and sprayed with 0.6 oz Harmony Extra® February 10, 2007. Site was sprayed with 3 oz Warrior® on April 24. Site was fertilized with 60 lb N March 14. Harvest occurred on June 18.

Orange - Planted October 23, 2006. Preplant fertilization was 23-60-30-30S on October 12. Sixty lb N and Harmony Extra® at 0.4 oz were applied March 9, 2007. Harvest occurred on June 7.

Shenandoah Valley - Planted on November 21, 2006. Preplant fertilizer was 40 lb n November 1. Sixty lb N and 0.5 oz Harmony Extra® were applied February 10, 2007. Forty lb N were applied March 27. Harvest occurred July 3.

Table 19. Summary of performance of entries in the Virginia Tech Wheat Test, 2007 harvest.

| Line | Yield (Bu/a) (8) | Test Weight (Lb/bu) (8) | Date Headed (Mar31+) (4) | Height (In) (4) | Lodging (0.2-10) (4) | Powdery Mildew (0-9) (3) | Leaf Rust (0-9) (4) | Barley | Spring Freeze (0-9) (2) | Hessian Fly Resistance (Biotypes) | Awns ^a |
|----------------------|------------------------|----------------------------------|-----------------------------------|-----------------------|----------------------------|-----------------------------------|------------------------------|--|----------------------------------|--|-------------------|
| | | | | | | | | Yellow Dwarf Virus (0-9) (5) | | | |
| USG 3665 | 92 + | 59.5 - | 35 + | 34 + | 0.9 | 0 - | 1 - | 1 - | 2 - | BCL | AL |
| VA05W-258 | 91 + | 59.2 - | 34 + | 35 + | 2.8 + | 1 + | 1 - | 1 - | 2 - | C | AL |
| VA05W-414 | 90 + | 59.6 - | 36 + | 34 + | 1.8 | 0 - | 3 + | 1 - | 1 - | — | AL |
| EXP 703 | 89 + | 58.8 - | 36 + | 34 + | 2.3 | 1 + | 3 + | 1 - | 2 - | C | AL |
| VA03W-409 | 89 + | 58.7 - | 36 + | 32 | 0.3 - | 0 - | 0 - | 1 - | 1 - | C | AL |
| VA05W-257 | 89 + | 58.5 - | 35 + | 33 + | 1.5 | 1 + | 2 | 1 - | 1 - | — | AL |
| VA04W-306 | 88 + | 59.8 | 32 - | 32 | 1.0 | 0 - | 2 | 1 - | 3 | C | AL |
| VA05W-78 | 88 + | 59.7 | 31 - | 31 - | 1.2 | 0 - | 1 - | 2 - | 2 - | — | AL |
| VA04W-259 | 87 + | 60.2 | 36 + | 32 | 0.9 | 0 - | 0 - | 2 - | 2 - | — | AL |
| VA05W-250 | 87 + | 59.0 - | 36 + | 34 + | 1.4 | 0 - | 0 - | 2 - | 2 - | BC | AL |
| Branson | 87 + | 59.0 - | 34 + | 33 + | 0.5 | 0 - | 1 - | 1 - | 1 - | B | AL |
| VA01W-205 | 86 + | 60.0 | 34 + | 30 - | 0.5 | 1 + | 0 - | 1 - | 1 - | — | AL |
| VA03W-110 | 86 + | 59.3 - | 34 + | 31 - | 2.0 | 1 + | 0 - | 1 - | 3 | — | AL |
| VA02W-555 | 86 + | 59.1 - | 32 - | 29 - | 2.0 | 0 - | 4 + | 1 - | 2 - | — | AL |
| EXP 701 | 86 + | 57.5 - | 35 + | 35 + | 3.3 + | 3 + | 2 | 2 - | 2 - | BC | AL |
| VA03W-412 | 85 + | 60.9 + | 34 + | 33 + | 0.7 | 0 - | 3 + | 3 + | 2 - | — | AL |
| VA03W-235 | 85 + | 60.2 | 37 + | 35 + | 1.7 | 0 - | 3 + | 1 - | 2 - | — | AL |
| NC00-15332 | 85 + | 58.8 - | 34 + | 34 + | 0.2 - | 1 + | 2 | 2 - | 2 - | — | A |
| Tribute | 84 + | 62.4 + | 33 - | 31 - | 1.4 | 0 - | 1 - | 2 - | 2 - | — | AL |
| VA04W-592 | 84 + | 59.8 | 35 + | 35 + | 1.7 | 0 - | 0 - | 2 - | 1 - | — | AL |
| VA05W-436 | 84 + | 59.8 | 34 + | 33 + | 1.2 | 3 + | 1 - | 1 - | 1 - | — | A |
| VA04W-230 | 84 + | 59.6 - | 32 - | 31 - | 0.3 - | 0 - | 3 + | 2 - | 3 | — | AL |
| VA04W-291 | 84 + | 59.5 - | 30 - | 31 - | 1.8 | 0 - | 1 - | 2 - | 5 + | C | AL |
| USG 3209 | 84 + | 59.4 - | 32 - | 30 - | 2.7 + | 1 + | 5 + | 1 - | 3 | BCL | AL |
| VA03W-310 | 84 + | 58.4 - | 32 - | 32 | 1.8 | 0 - | 0 - | 1 - | 2 - | C | AL |
| VA04W-571 | 83 | 61.4 + | 37 + | 32 | 1.3 | 2 + | 3 + | 1 - | 1 - | B | AL |
| VA05W-151 | 83 | 61.3 + | 31 - | 31 - | 2.7 + | 0 - | 5 + | 2 - | 3 | — | AL |
| USG 3342 | 83 | 60.2 | 33 - | 30 - | 0.3 - | 0 - | 2 | 1 - | 3 | BCL | A |
| SS 8309 | 83 | 60.0 | 36 + | 35 + | 0.2 - | 0 - | 2 | 2 - | 1 - | — | AL |
| VA03W-203 | 83 | 59.9 | 32 - | 31 - | 1.5 | 0 - | 2 | 2 - | 3 | — | AL |
| VA04W-227 | 83 | 59.9 | 33 - | 31 - | 1.8 | 0 - | 4 + | 2 - | 3 | — | AL |
| SS 560 | 83 | 59.2 - | 35 + | 32 | 0.9 | 0 - | 4 + | 2 - | 2 - | — | AL |
| Pioneer 26R15 | 83 | 58.4 - | 35 + | 33 + | 0.5 | 0 - | 1 - | 2 - | 1 - | B | A |
| M01-4377 | 82 | 61.1 + | 35 + | 35 + | 2.3 | 2 + | 4 + | 1 - | 1 - | B | AL |
| VA05W-668 | 82 | 60.9 + | 36 + | 32 | 2.0 | 1 + | 3 + | 1 - | 1 - | B | AL |
| SS 8302 | 82 | 60.6 + | 35 + | 34 + | 0.2 - | 1 + | 3 + | 2 - | 3 | — | A |
| VA05W-125 | 82 | 60.2 | 32 - | 31 - | 1.3 | 0 - | 3 + | 2 - | 2 - | — | AL |
| SS-MPV 57 | 82 | 59.0 - | 35 + | 33 + | 2.9 + | 1 + | 4 + | 3 + | 4 + | — | AL |
| VA05W-168 | 81 | 62.6 + | 32 - | 30 - | 2.5 | 0 - | 0 - | 1 - | 2 - | C | AL |
| AGS 2050 | 81 | 61.1 + | 33 - | 33 + | 1.7 | 0 - | 2 | 2 - | 2 - | BC | AL |
| Pioneer 26R12 | 81 | 61.0 + | 35 + | 32 | 0.5 | 1 + | 2 | 1 - | 2 - | — | A |
| Chesapeake | 81 | 60.8 + | 34 + | 31 - | 3.3 + | 0 - | 3 + | 1 - | 2 - | — | AL |
| USG 3706 | 81 | 60.5 + | 32 - | 30 - | 0.4 - | 0 - | 1 - | 3 + | 3 | — | AL |

Table 19. Summary of performance of entries in the Virginia Tech Wheat Test, 2007 harvest. (cont.)

| Line | Yield (Bu/a) (8) | Test Weight (Lb/bu) (8) | Date Headed (Mar31+) (4) | Height (In) (4) | Lodging (0.2-10) (4) | Powdery Mildew (0-9) (3) | Leaf Rust (0-9) (4) | Barley | Spring Freeze (0-9) (2) | Hessian Fly Resistance (Biotypes) | Awns ^a |
|-----------------------------------|------------------------|----------------------------------|-----------------------------------|-----------------------|----------------------------|-----------------------------------|------------------------------|--|----------------------------------|--|-------------------|
| | | | | | | | | Yellow Dwarf Virus (0-9) (5) | | | |
| VA04W-90 | 81 | 60.5 + | 33 - | 32 | 1.7 | 0 - | 3 + | 1 - | 3 | — | AL |
| VA04W-79 | 81 | 60.2 | 35 + | 33 + | 0.6 | 0 - | 2 | 2 - | 4 + | BC | AL |
| Vigoro V9713 | 81 | 60.2 | 36 + | 32 | 0.5 | 1 + | 3 + | 2 - | 1 - | — | A |
| Pioneer 26R24 | 81 | 60.1 | 33 - | 33 + | 0.5 | 0 - | 3 + | 2 - | 3 | — | AL |
| VA05W-251 | 81 | 59.4 - | 32 - | 31 - | 2.0 | 0 - | 0 - | 2 - | 3 | — | AL |
| VA03W-434 | 81 | 59.2 - | 35 + | 29 - | 0.3 - | 0 - | 1 - | 2 - | 2 - | — | AL |
| VA05W-108 | 81 | 58.6 - | 35 + | 31 - | 2.5 | 0 - | 0 - | 2 - | 2 - | — | AL |
| WB03-016 G | 81 | 58.3 - | 37 + | 35 + | 0.6 | 0 - | 4 + | 4 + | 3 | — | AL |
| VA05W-517 | 80 | 62.2 + | 33 - | 33 + | 2.9 + | 0 - | 4 + | 2 - | 2 - | — | AL |
| SS 8404 | 80 | 61.2 + | 33 - | 29 - | 0.2 - | 1 + | 3 + | 1 - | 4 + | — | A |
| VA05W-448 | 80 | 60.6 + | 32 - | 29 - | 1.7 | 0 - | 2 | 2 - | 3 | — | AL |
| USG 3592 | 80 | 60.2 | 33 - | 34 + | 2.8 + | 1 + | 0 - | 2 - | 3 | BC | AL |
| Magnolia | 80 | 59.9 | 33 - | 35 + | 0.5 | 3 + | 1 - | 2 - | 2 - | B | A |
| Dominion | 80 | 59.8 | 33 - | 30 - | 0.2 - | 0 - | 3 + | 2 - | 1 - | — | AL |
| Featherstone 176 | 80 | 59.8 | 31 - | 33 + | 2.9 + | 0 - | 4 + | 2 - | 3 | — | AL |
| Vigoro V9510 | 80 | 59.8 | 34 + | 32 | 2.4 | 0 - | 3 + | 2 - | 3 | — | A |
| Red Ruby | 80 | 59.7 | 35 + | 34 + | 0.4 - | 0 - | 5 + | 2 - | 2 - | — | A |
| Sisson | 80 | 59.6 - | 34 + | 31 - | 2.5 | 0 - | 7 + | 2 - | 4 + | — | AL |
| GA-96693-4E16 | 80 | 59.6 - | 29 - | 32 | 3.5 + | 1 + | 0 - | 1 - | 5 + | — | A |
| VA00W-38 | 80 | 59.3 - | 32 - | 31 - | 2.9 + | 1 + | 4 + | 2 - | 3 | C | AL |
| Tribute- USG3592 Blend | 79 | 61.2 + | 33 - | 33 + | 2.8 + | 0 - | 0 - | 2 - | 3 | — | AL |
| VA04W-515 | 79 | 60.7 + | 32 - | 33 + | 1.3 | 0 - | 2 | 2 - | 3 | — | AL |
| Panola | 79 | 59.0 - | 32 - | 33 + | 1.3 | 0 - | 2 | 2 - | 2 - | — | A |
| VA05W-255 | 79 | 58.9 - | 30 - | 31 - | 2.4 | 3 + | 2 | 2 - | 4 + | C | AL |
| VA02W-398 | 79 | 58.1 - | 32 - | 31 - | 0.8 | 0 - | 0 - | 3 + | 5 + | — | AL |
| McCormick | 78 - | 61.6 + | 33 - | 30 - | 0.9 | 0 - | 7 + | 2 - | 2 - | — | AL |
| Tribute-Neuse Blend | 78 - | 61.6 + | 34 + | 32 | 1.1 | 0 - | 0 - | 2 - | 1 - | C | AL |
| Coker 9553 | 78 - | 61.4 + | 31 - | 32 | 0.9 | 1 + | 3 + | 2 - | 2 - | — | A |
| VA03W-135 | 78 - | 58.0 - | 34 + | 32 | 1.1 | 0 - | 2 | 3 + | 4 + | — | AL |
| Coker 9184 | 77 - | 61.6 + | 35 + | 32 | 0.2 - | 1 + | 0 - | 2 - | 2 - | — | AL |
| Jamestown | 77 - | 61.5 + | 30 - | 30 - | 1.0 | 0 - | 2 | 1 - | 3 | BC | A |
| VA05W-53 | 77 - | 61.0 + | 30 - | 29 - | 1.9 | 0 - | 5 + | 2 - | 4 + | — | AL |
| Renwood 3260 | 77 - | 60.9 + | 31 - | 33 + | 1.9 | 0 - | 2 | 1 - | 3 | — | AL |
| Neuse- USG3592 Blend | 77 - | 60.8 + | 35 + | 33 + | 1.1 | 0 - | 0 - | 2 - | 2 - | C | AL |
| VA04W-439 | 77 - | 60.5 + | 31 - | 32 | 2.2 | 0 - | 6 + | 2 - | 4 + | C | A |
| VA05W-317 | 77 - | 59.7 | 33 - | 28 - | 1.3 | 2 + | 0 - | 3 + | 4 + | C | AL |
| SS 520 | 77 - | 59.4 - | 30 - | 33 + | 0.5 | 0 - | 3 + | 3 + | 4 + | — | AL |
| VA05W-313 | 77 - | 59.2 - | 30 - | 30 - | 2.2 | 0 - | 2 | 3 + | 3 | C | AL |
| VA05W-363 | 77 - | 58.5 - | 30 - | 30 - | 2.7 + | 0 - | 0 - | 2 - | 4 + | — | AL |
| Coker 9436 | 77 - | 58.2 - | 37 + | 30 - | 0.8 | 1 + | 1 - | 2 - | 2 - | BC | AL |
| VA05W-65 | 76 - | 62.5 + | 31 - | 30 - | 0.5 | 0 - | 4 + | 2 - | 7 + | — | AL |

Table 19. Summary of performance of entries in the Virginia Tech Wheat Test, 2007 harvest. (cont.)

| Line | Yield (Bu/a) (8) | Test Weight (Lb/bu) (8) | Date Headed (Mar31+) (4) | Height (In) (4) | Lodging (0.2-10) (4) | Powdery Mildew (0-9) (3) | Leaf Rust (0-9) (4) | Barley | Spring Freeze (0-9) (2) | Hessian Fly Resistance (Biotypes) | Awns ^a |
|----------------------|------------------------|----------------------------------|-----------------------------------|-----------------------|----------------------------|-----------------------------------|------------------------------|--|----------------------------------|--|-------------------|
| | | | | | | | | Yellow Dwarf Virus (0-9) (5) | | | |
| Neuse | 76 - | 61.2 + | 37 + | 32 | 1.3 | 0 - | 0 - | 2 - | 1 - | — | AL |
| Pioneer 26R31 | 76 - | 59.8 | 32 - | 28 - | 0.2 - | 0 - | 2 | 3 + | 4 + | — | AL |
| GA-951231-4E26 | 76 - | 59.8 | 30 - | 30 - | 1.8 | 2 + | 1 - | 2 - | 5 + | BCL | AL |
| VA02W-713 | 75 - | 61.1 + | 30 - | 32 | 2.9 + | 0 - | 5 + | 2 - | 5 + | C | A |
| Pioneer 26R87 | 72 - | 62.4 + | 31 - | 31 - | 0.7 | 0 - | 1 - | 2 - | 5 + | — | A |
| GA-951231-4E25 | 72 - | 59.7 | 29 - | 30 - | 2.0 | 2 + | 0 - | 2 - | 7 + | BCL | AL |
| DV03-9550 | 71 - | 61.0 + | 30 - | 30 - | 2.0 | 0 - | 5 + | 3 + | 7 + | — | AL |
| Massey | 70 - | 60.0 | 32 - | 35 + | 3.5 + | 1 + | 7 + | 3 + | 3 | B | AL |
| Average | 81 | 60.0 | 33 | 32 | 1.5 | 0.5 | 2 | 2 | 3 | | |
| LSD (0.05) | 3 | 0.4 | 0.5 | 1 | 1.1 | 0.5 | 1 | 0.5 | 1 | | |
| C.V. | 8 | 1.1 | 2 | 5 | — | — | — | — | — | | |

Released cultivars are shown in bold print.

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

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

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.

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

Seedlings of all lines were tested for resistance to three biotypes of Hessian Fly, including B, C, and L. Letters in column indicate varietal resistance to specified biotype(s). Lines lacking letters were susceptible to all biotypes.

^aA = Awned, AL = Awnless or short awns

Table 20. Two-year average summary of performance of entries in the Virginia Tech Wheat Tests, 2006 and 2007 harvests.

| Line | Yield (Bu/a) (16) | Test Weight (Lb/bu) (16) | Date Headed (Mar31+) (8) | Height (In) (8) | Lodging (0.2-10) (9) | Powdery Mildew (0-9) (4) | Leaf Rust (0-9) (7) | Barley Yellow Dwarf Virus (0-9) (6) | Spring Freeze (0-9) (2) | Early Height (inches) (2) |
|-----------------------------------|-------------------------|-----------------------------------|-----------------------------------|-----------------------|----------------------------|-----------------------------------|------------------------------|--|----------------------------------|------------------------------------|
| VA04W-306 | 95 + | 59.9 | 28 - | 32 | 1.0 | 0 - | 3 + | 1 - | 3 | 9.8 |
| VA03W-110 | 94 + | 59.3 - | 30 + | 32 | 1.2 | 1 | 1 - | 2 | 3 | 9.8 |
| VA04W-259 | 93 + | 60.1 | 31 + | 31 - | 0.9 | 0 - | 0 - | 2 | 2 - | 9.8 |
| VA03W-409 | 93 + | 58.7 - | 31 + | 31 - | 0.2 - | 0 - | 0 - | 1 - | 1 - | 8.4 - |
| VA04W-227 | 92 + | 59.9 | 29 | 32 | 1.3 | 1 | 5 + | 2 | 3 | 9.1 |
| USG 3665 | 92 + | 59.6 - | 30 + | 34 + | 0.6 | 1 | 1 - | 1 - | 2 - | 8.4 - |
| VA03W-412 | 91 + | 60.8 + | 29 | 33 + | 0.5 | 1 | 3 + | 3 + | 2 - | 9.4 |
| VA03W-310 | 91 + | 58.2 - | 27 - | 32 | 1.3 | 0 - | 0 - | 1 - | 2 - | 9.7 |
| VA01W-205 | 91 + | 60.3 + | 29 | 29 - | 0.6 | 1 | 1 - | 1 - | 1 - | 9.8 |
| VA03W-235 | 89 | 60.1 | 32 + | 34 + | 1.3 | 1 | 3 + | 1 - | 2 - | 9.1 |
| VA03W-203 | 89 | 59.8 - | 28 - | 31 - | 1.3 | 0 - | 2 | 2 | 3 | 9.8 |
| VA02W-555 | 89 | 58.9 - | 28 - | 30 - | 1.0 | 0 - | 4 + | 1 - | 2 - | 9.8 |
| USG 3209 | 89 | 59.5 - | 28 - | 30 - | 1.8 + | 1 | 5 + | 1 - | 3 | 9.7 |
| SS-MPV 57 | 89 | 59.1 - | 31 + | 34 + | 1.4 | 2 + | 4 + | 3 + | 4 + | 9.3 |
| SS 8309 | 89 | 59.9 | 31 + | 34 + | 0.3 - | 1 | 3 + | 2 | 1 - | 7.8 - |
| Pioneer 26R24 | 89 | 60.1 | 28 - | 34 + | 0.5 | 1 | 2 | 2 | 3 | 9.1 |
| Pioneer 26R15 | 89 | 58.7 - | 31 + | 33 + | 0.3 - | 1 | 1 - | 2 | 1 - | 8.9 |
| Vigoro V9510 | 88 | 59.6 - | 29 | 33 + | 1.6 + | 1 | 4 + | 2 | 3 | 9.3 |
| VA02W-398 | 88 | 58.4 - | 28 - | 32 | 0.9 | 0 - | 0 - | 3 + | 5 + | 9.8 |
| VA00W-38 | 88 | 59.1 - | 29 | 32 | 1.7 + | 1 | 3 + | 2 | 3 | 9.3 |
| Tribute | 88 | 62.2 + | 29 | 31 - | 1.1 | 0 - | 1 - | 2 | 2 - | 7.3 - |
| SS 8302 | 88 | 60.4 + | 31 + | 34 + | 0.2 - | 2 + | 3 + | 2 | 3 | 9.9 + |
| SS 560 | 88 | 59.4 - | 30 + | 32 | 0.5 | 1 | 4 + | 2 | 2 - | 8.6 |
| NC00-15332 | 88 | 58.5 - | 30 + | 35 + | 0.2 - | 1 | 2 | 2 | 2 - | 8.8 |
| Chesapeake | 88 | 60.7 + | 29 | 31 - | 1.9 + | 0 - | 3 + | 2 | 2 - | 9.6 |
| VA04W-439 | 87 | 60.6 + | 28 - | 32 | 1.1 | 0 - | 6 + | 2 | 4 + | 9.2 |
| VA03W-434 | 87 | 59.4 - | 31 + | 28 - | 0.4 | 0 - | 1 - | 2 | 2 - | 8.5 - |
| Sisson | 87 | 59.8 - | 29 | 31 - | 1.6 + | 0 - | 7 + | 2 | 4 + | 9.9 + |
| Pioneer 26R12 | 87 | 60.8 + | 30 + | 33 + | 0.3 - | 1 | 2 | 1 - | 2 - | 8.9 |
| Featherstone 176 | 87 | 59.6 - | 27 - | 33 + | 2.1 + | 0 - | 4 + | 2 | 3 | 9.8 |
| VA04W-90 | 86 | 60.2 + | 29 | 33 + | 0.9 | 0 - | 3 + | 1 - | 3 | 9.6 |
| SS 8404 | 86 | 61.2 + | 30 + | 30 - | 0.3 - | 2 + | 3 + | 1 - | 4 + | 9.5 |
| M01-4377 | 86 | 60.9 + | 31 + | 35 + | 1.4 | 3 + | 3 + | 1 - | 1 - | 6.8 - |
| Dominion | 86 | 59.9 | 29 | 30 - | 0.4 | 0 - | 2 | 2 | 1 - | 8.4 - |
| VA02W-713 | 85 | 61.3 + | 27 - | 33 + | 1.7 + | 0 - | 5 + | 2 | 5 + | 10.2 + |
| USG 3706 | 85 | 60.5 + | 28 - | 30 - | 0.5 | 0 - | 1 - | 3 + | 3 | 8.6 |
| USG 3592 | 85 | 60.0 | 30 + | 35 + | 1.9 + | 2 + | 0 - | 2 | 3 | 9.3 |
| USG 3342 | 85 | 59.7 - | 29 | 30 - | 0.3 - | 0 - | 2 | 2 | 3 | 9.8 |
| Tribute- USG3592 Blend | 85 | 61.0 + | 30 + | 34 + | 1.6 + | 1 | 1 - | 2 | 3 | 8.7 |
| SS 520 | 85 | 59.2 - | 26 - | 34 + | 0.7 | 0 - | 2 | 3 + | 4 + | 9.7 |
| Red Ruby | 85 | 59.6 - | 31 + | 35 + | 0.3 - | 1 | 5 + | 1 - | 2 - | 9.4 |

Table 20. Two-year average summary of performance of entries in the Virginia Tech Wheat Tests, 2006 and 2007 harvests. (cont.)

| Line | Yield (Bu/a) (16) | Test Weight (Lb/bu) (16) | Date Headed (Mar31+) (8) | Height (In) (8) | Lodging (0.2-10) (9) | Powdery Mildew (0-9) (4) | Leaf Rust (0-9) (7) | Barley Yellow Dwarf Virus (0-9) (6) | Spring Freeze (0-9) (2) | Early Height (inches) (2) |
|--------------------------------|-------------------------|-----------------------------------|-----------------------------------|-----------------------|----------------------------|-----------------------------------|------------------------------|--|----------------------------------|------------------------------------|
| Panola | 85 | 58.8 - | 28 - | 33 + | 0.7 | 1 | 3 + | 2 | 2 - | 9.4 |
| Pioneer 26R31 | 84 - | 59.3 - | 28 - | 28 - | 0.2 - | 0 - | 1 - | 3 + | 4 + | 9.2 |
| Coker 9436 | 84 - | 57.9 - | 33 + | 31 - | 0.9 | 1 | 1 - | 2 | 2 - | 7.7 - |
| Jamestown | 83 - | 61.1 + | 26 - | 30 - | 0.6 | 1 | 2 | 1 - | 3 | 9.9 + |
| Coker 9553 | 83 - | 60.9 + | 27 - | 33 + | 0.5 | 1 | 2 | 2 | 2 - | 9.8 |
| Tribute-Neuse Blend | 82 - | 61.4 + | 30 + | 32 | 0.8 | 0 - | 1 - | 1 - | 1 - | 8.8 |
| Renwood 3260 | 82 - | 60.7 + | 27 - | 33 + | 1.5 + | 0 - | 2 | 2 | 3 | 9.1 |
| Neuse-USG3592 Blend | 82 - | 60.5 + | 31 + | 34 + | 0.8 | 0 - | 0 - | 2 | 2 - | 9.3 |
| McCormick | 82 - | 61.5 + | 29 | 30 - | 0.5 | 0 - | 7 + | 2 | 2 - | 8.8 |
| Coker 9184 | 82 - | 61.3 + | 31 + | 32 | 0.3 - | 1 | 1 - | 2 | 2 - | 8.5 - |
| Pioneer 26R87 | 79 - | 62.0 + | 27 - | 32 | 0.4 | 0 - | 1 - | 2 | 5 + | 10.3 + |
| Massey | 74 - | 59.7 - | 29 | 36 + | 2.9 + | 1 | 7 + | 2 | 3 | 10.6 + |
| Average | 87 | 60.0 | 29 | 32 | 0.9 | 1 | 2 | 2 | 3 | 9.2 |
| LSD (0.05) | 3 | 0.2 | 0.4 | 0.7 | 0.6 | 0.4 | 0.5 | 0.5 | 1 | 0.7 |
| C.V. | 8 | 1.1 | 3 | 4 | — | — | — | — | — | — |

Released cultivars are shown in bold print.

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

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

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.

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

Table 21. Three-year average summary of performance of entries in the Virginia Tech Wheat Tests, 2005, 2006, and 2007 harvests.

| Line | Yield (Bu/a) (24) | Test Weight (Lb/bu) (24) | Date Headed (Mar31+) (12) | Height (In) (12) | Powdery Lodging (0.2-10) (13) | Mildew (0-9) (9) | Leaf Rust (0-9) (10) | Barley Yellow Dwarf Virus (0-9) (10) | Stripe Rust (0-9) (2) | Stripe Rust Reac- tion Type (2) | Spring Freeze (0-9) (2) | Early Height (inches) (2) | Hessian Fly Resis- tance (Bio- types) |
|-------------------------|-------------------------|-----------------------------------|------------------------------------|------------------------|--|------------------------|-------------------------------|---|--------------------------------|--|----------------------------------|------------------------------------|--|
| | | | | | | | | | | | | | |
| VA03W-409 | 89 + | 58.8 - | 34 + | 32 - | 0.2 - | 0 | 0 - | 1 - | 6 + | MS | 1 - | 8.4 - | C |
| VA03W-412 | 88 + | 60.5 + | 32 | 33 | 0.4 | 0 | 3 | 3 + | 1 - | R | 2 - | 9.4 | — |
| VA01W-205 | 88 + | 60.2 + | 32 | 30 - | 0.5 | 1 + | 0 - | 2 | 1 - | R | 1 - | 9.8 | — |
| SS-MPV 57 | 87 + | 59.0 - | 34 + | 35 + | 1.0 | 1 + | 4 + | 3 + | 4 + | MR | 4 + | 9.3 | — |
| VA02W-555 | 86 + | 59.0 - | 31 - | 31 - | 0.8 | 0 | 4 + | 1 - | 1 - | R | 2 - | 9.8 | — |
| USG 3209 | 86 + | 59.3 - | 31 - | 31 - | 1.3 + | 1 + | 5 + | 2 | 2 - | R | 3 | 9.7 | BCEL |
| SS 560 | 86 + | 59.3 - | 33 + | 33 | 0.5 | 1 + | 3 | 3 + | 4 + | MR | 2 - | 8.6 | — |
| Pioneer 26R24 | 86 + | 59.8 | 31 - | 35 + | 0.5 | 1 + | 2 - | 2 | 5 + | I | 3 | 9.1 | E |
| VA03W-434 | 85 + | 59.3 - | 34 + | 29 - | 0.3 - | 0 | 1 - | 3 + | 3 | R | 2 - | 8.5 - | — |
| VA03W-235 | 85 + | 59.8 | 35 + | 35 + | 1.0 | 0 | 3 | 2 | 1 - | R | 2 - | 9.1 | — |
| VA02W-398 | 85 + | 58.6 - | 31 - | 32 - | 0.8 | 0 | 0 - | 4 + | 2 - | R | 5 + | 9.8 | — |
| Vigoro V9510 | 84 | 59.6 - | 33 + | 33 | 1.2 + | 0 | 4 + | 2 | 5 + | I | 3 | 9.3 | — |
| Tribute | 84 | 61.4 + | 32 | 32 - | 0.9 | 0 | 1 - | 2 | 4 + | MR | 2 - | 7.3 - | — |
| SS 8404 | 84 | 60.6 + | 32 | 30 - | 0.3 - | 1 + | 2 - | 1 - | 4 + | MR | 4 + | 9.5 | — |
| Pioneer 26R15 | 84 | 58.9 - | 33 + | 34 + | 0.3 - | 0 | 1 - | 2 | 1 - | R | 1 - | 8.9 | BE |
| Featherstone 176 | 84 | 59.5 - | 30 - | 34 + | 1.6 + | 0 | 4 + | 2 | 1 - | R | 3 | 9.8 | E |
| VA02W-713 | 83 | 60.7 + | 29 - | 34 + | 1.3 + | 0 | 4 + | 2 | 2 - | R | 5 + | 10.2 + | BCDE |
| USG 3706 | 83 | 60.2 + | 31 - | 31 - | 0.4 | 0 | 1 - | 2 | 1 - | R | 3 | 8.6 | — |
| SS 520 | 83 | 59.2 - | 29 - | 34 + | 0.5 | 0 | 2 - | 3 + | 7 + | MS | 4 + | 9.7 | — |
| Sisson | 83 | 59.6 - | 31 - | 32 - | 1.3 + | 0 | 7 + | 3 + | 6 + | MS | 4 + | 9.9 + | — |
| NC00-15332 | 83 | 58.7 - | 34 + | 35 + | 0.2 - | 0 | 2 - | 2 | 1 - | R | 2 - | 8.8 | E |
| Dominion | 83 | 59.8 | 33 + | 31 - | 0.4 | 0 | 2 - | 3 + | 1 - | R | 1 - | 8.4 - | — |
| Chesapeake | 83 | 60.4 + | 32 | 32 - | 1.4 + | 0 | 3 | 2 | 6 + | MS | 2 - | 9.6 | — |
| SS 8309 | 82 | 59.6 - | 34 + | 35 + | 0.3 - | 1 + | 2 - | 2 | 4 + | MR | 1 - | 7.8 - | — |
| SS 8302 | 82 | 60.1 + | 33 + | 35 + | 0.2 - | 1 + | 3 | 3 + | 1 - | R | 3 | 9.9 + | — |
| Renwood 3260 | 81 - | 60.3 + | 30 - | 34 + | 1.3 + | 0 | 2 - | 2 | 4 + | MR | 3 | 9.1 | — |
| Pioneer 26R31 | 81 - | 59.4 - | 31 - | 30 - | 0.2 - | 0 | 1 - | 4 + | 5 + | I | 4 + | 9.2 | E |
| Jamestown | 81 - | 60.7 + | 28 - | 31 - | 0.5 | 0 | 2 - | 2 | 1 - | R | 3 | 9.9 + | BCDE |
| Pioneer 26R12 | 80 - | 60.4 + | 33 + | 33 | 0.3 - | 1 + | 2 - | 2 | 4 + | MR | 2 - | 8.9 | — |
| Coker 9553 | 80 - | 60.5 + | 29 - | 34 + | 0.5 | 1 + | 2 - | 2 | 1 - | R | 2 - | 9.8 | — |
| Coker 9436 | 80 - | 58.1 - | 36 + | 32 - | 0.7 | 1 + | 1 - | 3 + | 3 | R | 2 - | 7.7 - | BC |
| USG 3342 | 79 - | 59.5 - | 31 - | 30 - | 0.2 - | 0 | 2 - | 3 + | 4 + | MR | 3 | 9.8 | BCL |
| Coker 9184 | 79 - | 60.8 + | 34 + | 32 - | 0.3 - | 1 + | 1 - | 3 + | 3 | R | 2 - | 8.5 - | C |
| McCormick | 78 - | 61.0 + | 32 | 31 - | 0.4 | 0 | 6 + | 2 | 1 - | R | 2 - | 8.8 | C |
| Massey | 71 - | 59.6 - | 32 | 37 + | 2.3 + | 1 + | 7 + | 3 + | 4 + | MR | 3 | 10.6 + | BE |

Table 21. Three-year average summary of performance of entries in the Virginia Tech Wheat Tests, 2005, 2006, and 2007 harvests. (cont.)

| Line | Yield | Test Weight | Date Headed | Height | Lodging | Powdery Mildew | Leaf Rust | Barley Yellow Dwarf Virus | Stripe Rust | Stripe Rust Reaction Type | Spring Freeze | Early Height | Hessian Fly Resistance |
|------------|----------------|-----------------|------------------|--------------|------------------|----------------|---------------|---------------------------|--------------|---------------------------|---------------|-----------------|------------------------|
| | (Bu/a) (24) | (Lb/bu) (24) | (Mar31+) (12) | (In) (12) | (0.2-10) (13) | (0-9) (9) | (0-9) (10) | (0-9) (10) | (0-9) (2) | Type (2) | (0-9) (2) | (inches) (2) | (Bio-types) |
| Average | 83 | 59.8 | 32 | 33 | 0.7 | 0.4 | 3 | 2 | 3 | | 3 | 9.2 | |
| LSD (0.05) | 2 | 0.2 | 0.4 | 0.6 | 0.4 | 0.3 | 0.5 | 0.4 | 1 | | 0.7 | 0.7 | |
| C.V. | 8 | 1.4 | 3 | 4 | — | — | — | — | — | | — | — | |

Released cultivars are shown in bold print.

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

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

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.

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

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

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

Table 22. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Virginia AREC, Warsaw, Va., 2007 harvest.

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Powdery Mildew (0-9) | Leaf Rust (0-9) | Barley Yellow Dwarf Virus (0-9) |
|----------------------|-----------------|---------------------------|----------------------------|----------------|---------------------|----------------------------|-----------------------|---|
| USG 3665 | 114 + | 62.4 | 31 + | 33 | 0.2 | 1 | 1 - | 1 - |
| VA05W-258 | 113 + | 61.6 - | 30 + | 37 + | 0.3 | 1 | 0 - | 1 - |
| EXP 703 | 112 + | 60.7 - | 32 + | 35 + | 0.3 | 2 + | 6 + | 1 - |
| VA05W-414 | 110 + | 60.9 - | 33 + | 34 + | 0.3 | 0 - | 5 + | 1 - |
| SS 560 | 110 + | 60.4 - | 31 + | 32 | 0.2 | 1 | 5 + | 2 |
| VA05W-257 | 110 + | 60.3 - | 32 + | 33 | 0.2 | 2 + | 3 | 2 |
| VA04W-306 | 109 + | 62.6 + | 26 - | 33 | 0.2 | 0 - | 4 + | 1 - |
| VA01W-205 | 109 + | 62.4 | 31 + | 31 | 0.6 | 2 + | 0 - | 1 - |
| USG 3342 | 108 + | 62.0 | 30 + | 31 | 0.2 | 0 - | 2 | 2 |
| VA03W-203 | 107 + | 62.4 | 27 - | 33 | 0.2 | 0 - | 3 | 1 - |
| EXP 701 | 107 + | 59.5 - | 32 + | 35 + | 0.3 | 3 + | 4 + | 2 |
| VA04W-230 | 106 + | 62.7 + | 27 - | 31 | 0.2 | 1 | 4 + | 1 - |
| VA05W-125 | 106 + | 62.4 | 27 - | 31 | 0.8 | 0 - | 2 | 2 |
| VA03W-110 | 106 + | 61.6 - | 31 + | 33 | 1.4 + | 2 + | 0 - | 1 - |
| Tribute | 105 + | 64.4 + | 30 + | 33 | 0.2 | 0 - | 0 - | 2 |
| VA03W-235 | 105 + | 61.3 - | 34 + | 36 + | 0.3 | 1 | 4 + | 2 |
| SS-MPV 57 | 105 + | 60.9 - | 30 + | 32 | 0.5 | 3 + | 6 + | 2 |
| VA02W-398 | 105 + | 60.4 - | 28 - | 31 | 0.2 | 0 - | 0 - | 3 + |
| Pioneer 26R15 | 104 | 60.4 - | 31 + | 33 | 0.2 | 2 + | 1 - | 1 - |
| VA03W-409 | 103 | 60.2 - | 33 + | 31 | 0.2 | 0 - | 0 - | 1 - |
| VA02W-555 | 102 | 61.2 - | 27 - | 31 | 0.2 | 0 - | 5 + | 1 - |
| VA03W-434 | 102 | 61.1 - | 32 + | 29 - | 0.2 | 0 - | 0 - | 2 |
| VA05W-250 | 102 | 60.8 - | 33 + | 34 + | 0.3 | 1 | 0 - | 2 |
| VA04W-227 | 101 | 62.6 + | 29 | 31 | 0.2 | 0 - | 7 + | 2 |
| WB03-016G | 101 | 59.5 - | 34 + | 36 + | 0.3 | 0 - | 7 + | 4 + |
| VA03W-412 | 100 | 62.8 + | 31 + | 34 + | 0.3 | 1 | 5 + | 4 + |
| Dominion | 100 | 62.2 | 28 - | 29 - | 0.3 | 0 - | 5 + | 2 |
| Branson | 100 | 60.3 - | 32 + | 32 | 0.2 | 0 - | 0 - | 1 - |
| VA05W-108 | 100 | 60.1 - | 32 + | 32 | 0.2 | 1 | 0 - | 3 + |
| VA05W-151 | 99 | 64.3 + | 26 - | 32 | 0.2 | 0 - | 6 + | 1 - |
| SS 8404 | 99 | 63.1 + | 29 | 31 | 0.2 | 3 + | 5 + | 1 - |
| VA04W-291 | 99 | 62.8 + | 25 - | 33 | 0.2 | 0 - | 1 - | 2 |
| VA05W-448 | 99 | 62.7 + | 28 - | 28 - | 0.2 | 0 - | 2 | 3 + |
| VA05W-78 | 98 | 62.9 + | 26 - | 31 | 0.2 | 0 - | 0 - | 1 - |
| VA05W-436 | 98 | 61.9 | 30 + | 32 | 0.3 | 3 + | 1 - | 1 - |
| VA04W-592 | 98 | 61.8 | 32 + | 34 + | 1.0 + | 1 | 0 - | 3 + |
| VA00W-38 | 98 | 61.5 - | 26 - | 30 - | 0.2 | 1 | 6 + | 1 - |
| VA04W-259 | 98 | 61.4 - | 34 + | 30 - | 0.3 | 0 - | 0 - | 2 |
| VA03W-135 | 98 | 59.6 - | 31 + | 33 | 0.2 | 0 - | 3 | 3 + |
| Pioneer 26R12 | 97 | 63.2 + | 32 + | 32 | 0.2 | 1 | 4 + | 1 - |
| VA05W-168 | 96 | 64.5 + | 28 - | 30 - | 0.7 | 0 - | 0 - | 2 |
| USG 3706 | 96 | 63.3 + | 27 - | 29 - | 0.2 | 0 - | 2 | 3 + |

Table 22. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Virginia AREC, Warsaw, Va., 2007 harvest. (cont.)

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Powdery Mildew (0-9) | Leaf Rust (0-9) | Barley Yellow Dwarf Virus (0-9) |
|-----------------------------------|-----------------|---------------------------|----------------------------|----------------|---------------------|----------------------------|-----------------------|---|
| Tribute- USG3592 Blend | 96 | 63.2 + | 29 | 33 | 0.2 | 0 - | 0 - | 2 |
| Featherstone 176 | 96 | 62.7 + | 25 - | 33 | 0.2 | 0 - | 7 + | 1 - |
| SS 520 | 96 | 62.5 + | 25 - | 35 + | 0.2 | 1 | 4 + | 3 + |
| GA-96693-4E16 | 95 | 62.7 + | 25 - | 32 | 1.3 + | 0 - | 0 - | 1 - |
| SS 8302 | 95 | 62.6 + | 32 + | 34 + | 0.3 | 3 + | 5 + | 2 |
| VA05W-317 | 95 | 62.2 | 29 | 28 - | 0.4 | 3 + | 0 - | 3 + |
| USG 3209 | 95 | 61.2 - | 27 - | 29 - | 0.7 | 1 | 6 + | 1 - |
| VA05W-363 | 95 | 60.8 - | 26 - | 30 - | 0.3 | 1 | 0 - | 2 |
| VA03W-310 | 95 | 60.6 - | 27 - | 31 | 0.2 | 0 - | 0 - | 1 - |
| Pioneer 26R24 | 94 | 63.1 + | 29 | 33 | 0.2 | 1 | 4 + | 1 - |
| VA04W-515 | 94 | 63.1 + | 26 - | 33 | 0.5 | 0 - | 3 | 2 |
| VA04W-90 | 94 | 62.8 + | 28 - | 32 | 0.2 | 0 - | 3 | 1 - |
| USG 3592 | 94 | 62.7 + | 29 | 33 | 0.4 | 1 | 0 - | 1 - |
| Neuse-USG3592 Blend | 94 | 62.6 + | 31 + | 33 | 0.2 | 0 - | 0 - | 2 |
| VA05W-255 | 94 | 61.6 - | 24 - | 31 | 0.2 | 4 + | 0 - | 2 |
| SS 8309 | 94 | 61.0 - | 33 + | 35 + | 0.2 | 1 | 3 | 2 |
| Coker 9184 | 93 | 63.2 + | 32 + | 33 | 0.2 | 2 + | 0 - | 2 |
| VA04W-79 | 93 | 62.7 + | 31 + | 33 | 0.2 | 0 - | 3 | 2 |
| Red Ruby | 93 | 61.2 - | 31 + | 34 + | 0.6 | 0 - | 6 + | 2 |
| McCormick | 92 | 63.8 + | 29 | 30 - | 0.2 | 0 - | 7 + | 2 |
| VA05W-313 | 92 | 62.3 | 25 - | 30 - | 0.2 | 0 - | 2 | 3 + |
| Vigoro V9713 | 92 | 61.7 - | 32 + | 31 | 0.2 | 1 | 5 + | 2 |
| Sisson | 92 | 61.1 - | 31 + | 33 | 1.0 + | 0 - | 8 + | 3 + |
| NC00-15332 | 92 | 60.3 - | 30 + | 33 | 0.2 | 0 - | 4 + | 3 + |
| VA05W-668 | 91 | 62.1 | 33 + | 32 | 1.1 + | 3 + | 5 + | 1 - |
| Vigoro V9510 | 91 | 62.0 | 30 + | 34 + | 0.4 | 1 | 5 + | 2 |
| Panola | 91 | 61.6 - | 29 | 33 | 0.3 | 0 - | 4 + | 3 + |
| Tribute-Neuse Blend | 90 | 63.3 + | 31 + | 32 | 0.3 | 0 - | 0 - | 2 |
| Chesapeake | 90 | 62.7 + | 31 + | 32 | 0.2 | 0 - | 4 + | 2 |
| Magnolia | 90 | 62.0 | 28 - | 34 + | 0.2 | 4 + | 3 | 2 |
| VA05W-251 | 90 | 61.7 - | 26 - | 30 - | 0.2 | 1 | 0 - | 2 |
| VA05W-65 | 89 | 64.8 + | 24 - | 31 | 0.2 | 0 - | 6 + | 3 + |
| VA04W-439 | 89 | 62.8 + | 25 - | 32 | 0.2 | 0 - | 7 + | 2 |
| M01-4377 | 89 | 62.3 | 32 + | 34 + | 1.1 + | 4 + | 6 + | 1 - |
| VA05W-517 | 88 | 64.6 + | 30 + | 34 + | 2.0 + | 0 - | 6 + | 2 |
| Renwood 3260 | 88 | 63.3 + | 26 - | 33 | 0.3 | 0 - | 2 | 2 |
| Pioneer 26R31 | 88 | 61.7 - | 26 - | 27 - | 0.2 | 0 - | 2 | 3 + |
| Coker 9436 | 88 | 59.8 - | 34 + | 30 - | 0.6 | 1 | 1 - | 2 |
| VA05W-53 | 87 - | 63.4 + | 24 - | 28 - | 0.2 | 0 - | 7 + | 3 + |
| AGS 2050 | 87 - | 62.5 + | 30 + | 32 | 0.2 | 0 - | 4 + | 3 + |
| Coker 9553 | 86 - | 63.2 + | 25 - | 33 | 0.2 | 1 | 5 + | 2 |

Table 22. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Virginia AREC, Warsaw, Va., 2007 harvest. (cont.)

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Powdery Mildew (0-9) | Leaf Rust (0-9) | Barley Yellow Dwarf Virus (0-9) |
|----------------------|-----------------|---------------------------|----------------------------|----------------|---------------------|----------------------------|-----------------------|---|
| VA04W-571 | 86 - | 62.4 | 35 + | 31 | 0.6 | 3 + | 4 + | 1 - |
| Neuse | 86 - | 62.2 | 35 + | 33 | 0.2 | 0 - | 0 - | 2 |
| VA02W-713 | 85 - | 63.0 + | 25 - | 32 | 0.3 | 0 - | 7 + | 2 |
| DV03-9550 | 84 - | 63.7 + | 23 - | 32 | 0.2 | 0 - | 7 + | 3 + |
| GA-951231-4E26 | 81 - | 63.3 + | 25 - | 30 - | 0.2 | 3 + | 0 - | 2 |
| Pioneer 26R87 | 77 - | 64.4 + | 25 - | 32 | 0.2 | 1 | 0 - | 1 - |
| Jamestown | 77 - | 63.5 + | 23 - | 30 - | 0.2 | 1 | 4 + | 1 - |
| GA-951231-4E25 | 77 - | 63.3 + | 25 - | 31 | 0.4 | 3 + | 0 - | 2 |
| Massey | 77 - | 61.9 | 27 - | 36 + | 0.3 | 1 | 8 + | 3 + |
| Average | 96 | 62.1 | 29 | 32 | 0.3 | 1 | 3 | 2 |
| LSD (0.05) | 9 | 0.4 | 1 | 2 | 0.7 | 1 | 1 | 1 |
| C.V. | 7 | 0.5 | 3 | 4 | — | — | — | — |

Released cultivars are shown in bold print.

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

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.

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

Table 23. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Shore AREC, Painter, Va., 2007 harvest.

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Leaf Rust (0-9) | Line | Yield (Bu/a) | Test Weight (Lb/bu) | Leaf Rust (0-9) |
|------------------------------|-----------------|---------------------------|-----------------------|----------------------------|-----------------|---------------------------|-----------------------|
| Pioneer 26R24 | 97 + | 62.4 + | 3 | Magnolia | 83 | 61.4 | 1 - |
| VA05W-151 | 92 + | 64.0 + | 7 + | VA03W-110 | 83 | 61.6 | 0 - |
| VA03W-409 | 92 + | 60.3 - | 0 - | VA04W-439 | 82 | 63.3 + | 7 + |
| VA03W-310 | 92 + | 60.3 - | 0 - | Dominion | 82 | 61.9 | 4 + |
| VA04W-227 | 91 + | 61.6 | 6 + | VA05W-436 | 82 | 61.1 - | 0 - |
| VA04W-90 | 91 + | 62.5 + | 4 + | USG 3209 | 81 | 61.1 - | 7 + |
| VA01W-205 | 91 + | 62.0 | 1 - | VA05W-65 | 81 | 64.6 + | 6 + |
| GA-96693-4E16 | 91 + | 62.4 + | 0 - | VA02W-713 | 81 | 63.9 + | 6 + |
| VA04W-259 | 91 + | 61.2 - | 0 - | Featherstone 176 | 81 | 62.4 + | 5 + |
| SS 8302 | 90 + | 61.8 | 3 | M01-4377 | 81 | 62.3 + | 5 + |
| VA04W-306 | 90 + | 61.2 - | 3 | VA05W-668 | 81 | 62.3 + | 4 + |
| GA-951231-4E26 | 90 + | 63.0 + | 1 - | VA05W-313 | 81 | 62.1 | 2 - |
| VA05W-250 | 90 + | 61.1 - | 1 - | Coker 9184 | 81 | 62.7 + | 1 - |
| Vigoro V9510 | 89 | 61.8 | 4 + | VA05W-108 | 81 | 60.4 - | 0 - |
| Pioneer 26R12 | 89 | 61.8 | 3 | DV03-9550 | 80 | 64.2 + | 8 + |
| VA05W-258 | 89 | 60.9 - | 3 | Sisson | 80 | 61.2 - | 8 + |
| NC00-15332 | 89 | 59.9 - | 3 | VA03W-235 | 80 | 61.0 - | 4 + |
| VA04W-79 | 89 | 62.1 | 2 - | VA03W-135 | 80 | 60.1 - | 4 + |
| VA05W-255 | 88 | 61.4 | 4 + | USG 3342 | 80 | 63.0 + | 2 - |
| EXP 703 | 88 | 60.3 - | 4 + | GA-951231-4E25 | 80 | 63.0 + | 0 - |
| WB03-016 G | 88 | 59.5 - | 4 + | VA02W-555 | 79 | 60.8 - | 4 + |
| VA05W-257 | 88 | 60.8 - | 3 | VA05W-363 | 79 | 60.6 - | 1 - |
| VA02W-398 | 88 | 60.4 - | 0 - | Vigoro V9713 | 78 | 61.7 | 4 + |
| VA05W-78 | 87 | 61.8 | 3 | Pioneer 26R31 | 78 | 61.4 | 3 |
| VA04W-291 | 87 | 61.6 | 2 - | VA04W-515 | 78 | 62.4 + | 2 - |
| Tribute-USG3592 Blend | 87 | 62.7 + | 1 - | VA05W-517 | 77 | 63.7 + | 7 + |
| VA04W-230 | 86 | 61.3 - | 5 + | SS 520 | 77 | 61.2 - | 4 + |
| VA03W-412 | 86 | 62.0 | 3 | Branson | 77 | 60.4 - | 2 - |
| VA00W-38 | 86 | 61.0 - | 3 | Coker 9436 | 77 | 60.5 - | 1 - |
| VA05W-414 | 86 | 60.8 - | 3 | VA04W-592 | 77 | 61.6 | 0 - |
| Tribute | 86 | 63.7 + | 2 - | Red Ruby | 76 - | 59.8 - | 8 + |
| VA05W-317 | 86 | 61.6 | 1 - | VA04W-571 | 76 - | 62.5 + | 5 + |
| VA05W-168 | 86 | 63.3 + | 0 - | SS-MPV 57 | 76 - | 60.1 - | 5 + |
| SS 8404 | 85 | 63.2 + | 5 + | Jamestown | 76 - | 64.1 + | 3 |
| Chesapeake | 85 | 62.0 | 4 + | Renwood 3260 | 76 - | 62.7 + | 3 |
| VA03W-203 | 85 | 61.6 | 3 | Neuse | 76 - | 62.3 + | 1 - |
| VA03W-434 | 85 | 60.5 - | 1 - | AGS 2050 | 75 - | 62.5 + | 3 |
| SS 560 | 84 | 59.7 - | 5 + | VA05W-53 | 74 - | 63.3 + | 6 + |
| VA05W-125 | 84 | 62.6 + | 4 + | Neuse-USG3592 Blend | 74 - | 62.0 | 1 - |
| USG 3706 | 84 | 61.9 | 2 - | Massey | 73 - | 61.6 | 9 + |
| USG 3665 | 84 | 61.6 | 2 - | Pioneer 26R87 | 73 - | 64.0 + | 1 - |
| USG 3592 | 84 | 62.3 + | 0 - | Tribute-Neuse Blend | 73 - | 62.8 + | 1 - |
| VA05W-251 | 84 | 61.7 | 0 - | Coker 9553 | 72 - | 63.5 + | 3 |
| Pioneer 26R15 | 84 | 60.1 - | 0 - | McCormick | 71 - | 62.4 + | 9 + |
| Panola | 83 | 60.8 - | 4 + | Average | 83 | 61.8 | 3 |
| VA05W-448 | 83 | 62.2 | 2 - | LSD (0.05) | 7 | 0.5 | 1 |
| SS 8309 | 83 | 60.9 - | 2 - | C.V. | 6 | 0.6 | — |
| EXP 701 | 83 | 59.9 - | 2 - | | | | |

Released cultivars are shown in bold print.

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

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

Table 24. Summary of performance of entries in the Virginia Tech Wheat Test, Northern Piedmont AREC, Orange, Va., 2007 harvest.

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Barley Yellow Dwarf Virus (0-9) |
|----------------------|-----------------|---------------------------|----------------------------|----------------|---------------------|---|
| VA03W-412 | 108 + | 60.5 + | 33 | 38 + | 1.8 | 3 |
| Branson | 104 + | 57.5 | 33 | 37 | 0.2 | 4 + |
| VA03W-110 | 104 + | 58.0 | 33 | 35 | 3.1 | 3 |
| VA02W-555 | 104 + | 58.4 | 32 - | 34 - | 4.1 | 2 - |
| VA05W-257 | 103 + | 56.7 - | 34 + | 38 + | 4.2 | 2 - |
| VA05W-414 | 102 + | 58.6 | 35 + | 39 + | 5.3 | 3 |
| VA04W-592 | 101 + | 57.9 | 34 + | 41 + | 2.9 | 3 |
| VA05W-258 | 100 | 57.9 | 33 | 39 + | 4.9 | 3 |
| USG 3665 | 98 | 57.3 | 33 | 40 + | 1.5 | 3 |
| EXP 703 | 98 | 57.1 | 34 + | 40 + | 4.5 | 2 - |
| VA04W-306 | 98 | 57.9 | 32 - | 37 | 2.7 | 2 - |
| VA04W-259 | 97 | 59.1 | 35 + | 37 | 2.7 | 4 + |
| VA04W-291 | 97 | 58.2 | 32 - | 34 - | 3.6 | 3 |
| USG 3209 | 97 | 57.2 | 32 - | 35 | 4.6 | 2 - |
| VA03W-310 | 96 | 57.2 | 32 - | 36 | 2.0 | 3 |
| VA04W-571 | 96 | 60.0 + | 35 + | 37 | 2.3 | 2 - |
| EXP 701 | 95 | 56.8 - | 33 | 40 + | 4.7 | 4 + |
| VA05W-151 | 95 | 59.9 | 32 - | 35 | 3.6 | 4 + |
| VA05W-78 | 95 | 56.9 - | 33 | 35 | 2.5 | 4 + |
| Chesapeake | 95 | 59.6 | 33 | 36 | 6.0 | 3 |
| VA05W-250 | 95 | 58.0 | 34 + | 37 | 2.8 | 3 |
| VA03W-235 | 94 | 59.8 | 35 + | 41 + | 4.7 | 3 |
| NC00-15332 | 94 | 57.5 | 33 | 39 + | 0.2 | 3 |
| Coker 9553 | 94 | 60.8 + | 31 - | 37 | 0.8 | 2 - |
| VA05W-313 | 93 | 56.1 - | 32 - | 35 | 2.2 | 4 + |
| Vigoro V9713 | 93 | 59.8 | 35 + | 37 | 0.4 | 3 |
| VA01W-205 | 93 | 58.7 | 33 | 33 - | 0.3 | 2 - |
| VA05W-53 | 92 | 59.2 | 32 - | 34 - | 4.1 | 4 + |
| VA05W-436 | 92 | 59.4 | 34 + | 38 + | 3.8 | 3 |
| Magnolia | 92 | 59.1 | 34 + | 41 + | 0.9 | 3 |
| Pioneer 26R24 | 92 | 58.8 | 32 - | 38 + | 0.6 | 3 |
| VA03W-409 | 92 | 57.0 - | 35 + | 36 | 0.4 | 3 |
| USG 3706 | 91 | 57.7 | 32 - | 35 | 0.2 | 5 + |
| WB03-016 G | 91 | 57.4 | 35 + | 39 + | 0.6 | 4 + |
| VA05W-168 | 91 | 61.2 + | 32 - | 35 | 3.5 | 3 |
| VA04W-230 | 91 | 57.7 | 33 | 35 | 0.2 | 3 |
| VA04W-90 | 91 | 58.7 | 33 | 36 | 4.4 | 2 - |
| Tribute | 90 | 60.9 + | 32 - | 35 | 1.8 | 5 + |
| VA04W-439 | 90 | 58.0 | 32 - | 37 | 4.6 | 4 + |
| SS 8302 | 90 | 59.4 | 34 + | 40 + | 0.2 | 4 + |
| VA05W-251 | 90 | 58.7 | 32 - | 35 | 3.0 | 3 |
| SS 560 | 90 | 57.7 | 34 + | 36 | 2.6 | 3 |
| Jamestown | 90 | 59.6 | 31 - | 35 | 2.0 | 2 - |

Table 24. Summary of performance of entries in the Virginia Tech Wheat Test, Northern Piedmont AREC, Orange, Va., 2007 harvest. (cont.)

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Barley Yellow Dwarf Virus (0-9) |
|-----------------------------------|-----------------|---------------------------|----------------------------|----------------|---------------------|---|
| VA05W-448 | 89 | 59.4 | 33 | 34 - | 3.7 | 5 + |
| SS 520 | 89 | 57.1 | 32 - | 38 + | 0.8 | 5 + |
| USG 3342 | 89 | 59.0 | 32 - | 33 - | 0.2 | 4 + |
| VA03W-203 | 89 | 58.9 | 32 - | 36 | 3.3 | 3 |
| VA05W-517 | 89 | 60.4 + | 33 | 37 | 3.0 | 3 |
| M01-4377 | 89 | 60.4 + | 34 + | 39 + | 2.1 | 2 - |
| VA04W-79 | 89 | 58.3 | 34 + | 38 + | 1.5 | 2 - |
| Tribute- USG3592 Blend | 88 | 59.3 | 33 | 39 + | 5.1 | 4 + |
| USG 3592 | 88 | 58.3 | 33 | 39 + | 3.1 | 4 + |
| SS 8309 | 88 | 59.0 | 34 + | 41 + | 0.2 | 4 + |
| Featherstone 176 | 88 | 56.7 - | 32 - | 37 | 5.2 | 3 |
| GA-951231-4E25 | 88 | 57.8 | 31 - | 35 | 4.1 | 3 |
| Pioneer 26R12 | 88 | 59.9 | 33 | 39 + | 1.2 | 3 |
| Pioneer 26R15 | 88 | 57.3 | 34 + | 37 | 0.2 | 3 |
| VA05W-65 | 87 | 60.2 + | 32 - | 35 | 0.5 | 5 + |
| Sisson | 87 | 57.4 | 33 | 36 | 5.7 | 4 + |
| VA04W-227 | 87 | 58.2 | 33 | 36 | 4.1 | 3 |
| Tribute-Neuse Blend | 87 | 60.0 + | 33 | 37 | 2.1 | 3 |
| Pioneer 26R87 | 87 | 61.2 + | 31 - | 36 | 2.0 | 3 |
| DV03-9550 | 86 | 59.5 | 32 - | 35 | 5.4 | 4 + |
| Coker 9436 | 86 | 57.1 | 36 + | 34 | 1.5 | 4 + |
| VA05W-108 | 86 | 57.6 | 35 + | 36 | 5.8 | 3 |
| Neuse | 86 | 60.0 + | 35 + | 37 | 3.5 | 3 |
| Panola | 86 | 57.9 | 32 - | 37 | 2.7 | 3 |
| SS 8404 | 86 | 60.4 + | 33 | 34 - | 0.2 | 3 |
| Red Ruby | 86 | 59.0 | 34 + | 39 + | 0.8 | 2 - |
| VA05W-255 | 85 | 56.4 - | 32 - | 35 | 4.9 | 3 |
| VA05W-363 | 84 | 56.5 - | 31 - | 34 - | 4.7 | 4 + |
| VA03W-434 | 84 | 58.4 | 34 + | 34 - | 0.8 | 4 + |
| Vigoro V9510 | 84 | 57.8 | 33 | 37 | 6.6 + | 3 |
| VA04W-515 | 84 | 58.1 | 33 | 38 + | 2.5 | 2 - |
| VA05W-125 | 83 | 58.7 | 32 - | 34 - | 1.2 | 5 + |
| VA02W-713 | 83 | 59.5 | 32 - | 37 | 5.8 | 4 + |
| VA02W-398 | 82 | 55.7 - | 33 | 36 | 1.5 | 6 + |
| Dominion | 82 | 58.9 | 33 | 34 - | 0.2 | 5 + |
| VA00W-38 | 82 | 57.3 | 33 | 38 + | 6.3 + | 3 |
| Renwood 3260 | 82 | 58.9 | 32 - | 38 + | 2.2 | 3 |
| Neuse-USG3592 Blend | 82 | 59.1 | 33 | 37 | 1.8 | 3 |
| GA-96693-4E16 | 82 | 57.4 | 31 - | 37 | 7.5 + | 2 - |
| VA03W-135 | 81 | 55.8 - | 33 | 38 + | 3.0 | 5 + |

Table 24. Summary of performance of entries in the Virginia Tech Wheat Test, Northern Piedmont AREC, Orange, Va., 2007 harvest. (cont.)

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Barley Yellow Dwarf Virus (0-9) |
|----------------------|-----------------|---------------------------|----------------------------|----------------|---------------------|---|
| SS-MPV 57 | 81 | 57.8 | 33 | 39 + | 6.8 + | 4 + |
| McCormick | 81 | 59.5 | 33 | 35 | 2.4 | 4 + |
| Pioneer 26R31 | 80 | 58.9 | 32 - | 31 - | 0.2 | 6 + |
| AGS 2050 | 80 | 59.2 | 32 - | 38 + | 1.8 | 4 + |
| VA05W-668 | 79 | 58.7 | 34 + | 37 | 1.6 | 2 - |
| Massey | 78 | 58.0 | 33 | 39 + | 8.5 + | 6 + |
| VA05W-317 | 78 | 58.1 | 34 + | 32 - | 2.5 | 5 + |
| Coker 9184 | 78 | 59.2 | 34 + | 36 | 0.2 | 3 |
| GA-951231-4E26 | 77 - | 58.4 | 30 - | 34 - | 2.8 | 4 + |
| Average | 89 | 58.5 | 33 | 36 | 2.8 | 3 |
| LSD (0.05) | 12 | 1.5 | 1 | 2 | 3.5 | 1 |
| C.V. | 10 | 1.8 | 2 | 4 | — | — |

Released cultivars are shown in bold print.

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

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.

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

Table 25. Summary of performance of entries in the Virginia Tech Wheat Test, Southern Piedmont AREC, Blackstone, Va., 2007 harvest.

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Barley Yellow Dwarf Virus (0-9) | Line | Yield (Bu/a) | Test Weight (Lb/bu) | Barley Yellow Dwarf Virus (0-9) |
|----------------------|--------------|---------------------|---------------------------------|------------------------------|--------------|---------------------|---------------------------------|
| USG 3665 | 98 + | 61.9 | 3 | VA03W-203 | 77 | 61.4 | 6 + |
| EXP 703 | 96 + | 60.6 - | 2 - | Pioneer 26R24 | 77 | 61.6 | 5 |
| VA03W-409 | 91 + | 60.0 - | 4 | Dominion | 77 | 61.3 | 5 |
| VA05W-436 | 89 + | 61.6 | 3 | Red Ruby | 77 | 61.0 | 5 |
| VA05W-250 | 89 + | 61.2 | 3 | Magnolia | 77 | 61.0 | 5 |
| USG 3209 | 89 + | 61.9 | 2 - | SS 8302 | 77 | 61.7 | 4 |
| VA05W-78 | 88 + | 60.9 | 4 | EXP 701 | 77 | 59.8 - | 4 |
| VA05W-448 | 85 | 61.7 | 5 | VA05W-255 | 76 | 60.2 - | 6 + |
| VA04W-259 | 85 | 61.7 | 4 | VA04W-515 | 76 | 61.7 | 4 |
| Vigoro V9713 | 85 | 61.0 | 4 | VA05W-251 | 76 | 60.8 | 4 |
| VA02W-555 | 85 | 61.0 | 2 - | Pioneer 26R87 | 76 | 63.7 + | 3 |
| Vigoro V9510 | 84 | 61.4 | 3 | Sisson | 75 | 61.4 | 5 |
| Pioneer 26R15 | 84 | 60.3 - | 3 | VA04W-592 | 75 | 61.2 | 5 |
| VA04W-79 | 83 | 61.6 | 5 | VA05W-65 | 75 | 64.1 + | 4 |
| SS-MPV 57 | 83 | 61.1 | 5 | VA02W-713 | 74 | 62.4 + | 5 |
| VA05W-258 | 83 | 60.7 - | 4 | VA00W-38 | 74 | 60.6 - | 4 |
| SS 560 | 83 | 60.6 - | 4 | Renwood 3260 | 74 | 61.7 | 3 |
| AGS 2050 | 83 | 62.2 | 3 | Coker 9184 | 73 | 62.7 + | 6 + |
| VA04W-306 | 83 | 61.0 | 3 | VA05W-317 | 73 | 61.2 | 6 + |
| VA03W-412 | 82 | 62.9 + | 5 | WB03-016 G | 73 | 60.5 - | 6 + |
| M01-4377 | 82 | 62.5 + | 3 | Panola | 73 | 60.2 - | 6 + |
| VA03W-235 | 82 | 61.1 | 3 | VA05W-53 | 73 | 62.5 + | 5 |
| VA04W-571 | 82 | 62.7 + | 2 - | VA05W-125 | 73 | 61.7 | 5 |
| SS 8404 | 82 | 62.2 | 2 - | Tribute-Neuse Blend | 73 | 62.6 + | 4 |
| VA03W-434 | 81 | 60.9 | 6 + | McCormick | 73 | 62.5 + | 4 |
| VA05W-151 | 81 | 63.0 + | 4 | Pioneer 26R31 | 72 | 60.8 | 7 + |
| VA04W-90 | 81 | 61.9 | 4 | VA05W-313 | 72 | 60.9 | 6 + |
| VA04W-230 | 81 | 61.5 | 4 | Jamestown | 72 | 62.8 + | 4 |
| Pioneer 26R12 | 81 | 62.0 | 3 | VA05W-363 | 72 | 60.3 - | 4 |
| Branson | 81 | 60.4 - | 3 | VA04W-227 | 71 | 61.2 | 5 |
| VA04W-291 | 80 | 61.5 | 5 | VA05W-108 | 71 | 59.7 - | 5 |
| SS 8309 | 80 | 61.1 | 5 | Chesapeake | 71 | 61.9 | 4 |
| NC00-15332 | 80 | 59.8 - | 5 | USG 3592 | 71 | 61.3 | 4 |
| USG 3342 | 80 | 61.1 | 3 | Neuse-USG3592 Blend | 70 | 61.8 | 5 |
| VA03W-310 | 80 | 60.4 - | 3 | VA05W-168 | 70 | 63.7 + | 4 |
| VA05W-257 | 80 | 60.2 - | 2 - | VA03W-135 | 69 | 59.8 - | 7 + |
| Coker 9436 | 79 | 59.5 - | 5 | Coker 9553 | 69 | 62.0 | 4 |
| GA-96693-4E16 | 79 | 62.0 | 3 | VA01W-205 | 69 | 61.1 | 4 |
| VA03W-110 | 79 | 61.8 | 2 - | GA-951231-4E26 | 68 | 61.0 | 6 + |
| VA04W-439 | 78 | 61.9 | 5 | Tribute-USG3592 Blend | 68 | 62.0 | 5 |
| Tribute | 78 | 63.5 + | 3 | Featherstone 176 | 68 | 61.8 | 4 |
| VA05W-414 | 78 | 61.0 | 3 | VA02W-398 | 67 - | 59.9 - | 8 + |
| VA05W-668 | 78 | 62.4 + | 1 - | | | | |

Table 25. Summary of performance of entries in the Virginia Tech Wheat Test, Southern Piedmont AREC, Blackstone, Va., 2007 harvest. (cont.)

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Barley Yellow Dwarf Virus (0-9) |
|-----------------|-----------------|---------------------------|--|
| DV03-9550 | 67 - | 62.7 + | 7 + |
| Neuse | 67 - | 62.2 | 4 |
| VA05W-517 | 65 - | 62.7 + | 4 |
| Massey | 64 - | 60.5 - | 4 |
| SS 520 | 63 - | 60.9 | 8 + |
| USG 3706 | 63 - | 61.9 | 6 + |
| GA-951231-4E25 | 54 - | 61.0 | 7 + |
| Average | 77 | 61.5 | 4 |
| LSD (0.05) | 10 | 0.8 | 2 |
| C.V. | 8 | 0.8 | — |

Released cultivars are shown in bold print.

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

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

Table 26. Summary of performance of entries in the Virginia Tech Wheat Test, planted at Shenandoah Valley at the Dick Bowman Farm, Shenandoah County, Va., 2007 harvest.

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Line | Yield (Bu/a) | Test Weight (Lb/bu) | Line | Yield (Bu/a) | Test Weight (Lb/bu) |
|-------------------------|--------------|---------------------|------------------------------|--------------|---------------------|----------------------------|--------------|---------------------|
| VA05W-517 | 81 + | 60.8 + | Tribute | 68 | 60.0 + | VA05W-363 | 64 | 55.5 - |
| VA05W-258 | 77 + | 55.6 - | Pioneer 26R87 | 68 | 59.2 + | VA05W-257 | 64 | 54.0 - |
| AGS 2050 | 76 + | 59.2 + | Massey | 68 | 58.8 + | SS 8302 | 63 | 58.5 + |
| VA05W-151 | 76 + | 58.6 + | VA05W-668 | 68 | 58.4 + | Red Ruby | 63 | 57.1 |
| VA05W-78 | 76 + | 56.6 | Jamestown | 68 | 58.0 | VA04W-592 | 63 | 57.1 |
| USG 3209 | 74 + | 57.4 | VA02W-713 | 68 | 57.5 | Pioneer 26R24 | 63 | 56.2 |
| VA05W-168 | 73 + | 60.7 + | EXP 703 | 68 | 56.9 | VA03W-203 | 63 | 55.4 - |
| NC00-15332 | 73 + | 56.8 | Coker 9553 | 67 | 58.2 + | VA05W-448 | 62 | 57.9 |
| Featherstone 176 | 73 + | 56.8 | VA04W-515 | 67 | 58.2 + | VA04W-90 | 62 | 56.7 |
| VA04W-227 | 73 + | 56.3 | M01-4377 | 67 | 58.1 + | VA04W-439 | 62 | 56.6 |
| Vigoro V9713 | 72 + | 57.8 | Pioneer 26R31 | 67 | 57.6 | Neuse | 61 | 59.3 + |
| VA00W-38 | 72 + | 57.0 | USG 3592 | 67 | 57.6 | Tribute-Neuse Blend | 61 | 59.1 + |
| Sisson | 72 + | 56.8 | VA03W-434 | 67 | 56.4 | VA04W-259 | 61 | 57.3 |
| Branson | 72 + | 56.5 | VA05W-436 | 67 | 55.8 | VA05W-317 | 61 | 56.3 |
| GA-96693-4E16 | 72 + | 55.8 | VA05W-250 | 67 | 54.2 - | VA01W-205 | 61 | 55.9 |
| VA04W-571 | 71 | 58.8 + | VA05W-65 | 66 | 60.3 + | VA04W-230 | 61 | 55.1 - |
| Renwood 3260 | 71 | 58.7 + | Neuse-USG3592 Blend | 66 | 58.3 + | VA03W-310 | 61 | 54.5 - |
| VA03W-135 | 71 | 54.9 - | VA03W-409 | 66 | 56.2 | VA05W-251 | 61 | 54.2 - |
| McCormick | 70 | 59.2 + | Panola | 66 | 55.6 - | VA03W-412 | 60 - | 56.6 |
| USG 3706 | 70 | 58.4 + | VA02W-398 | 66 | 55.0 - | VA05W-108 | 60 - | 54.7 - |
| Chesapeake | 70 | 58.4 + | EXP 701 | 66 | 54.4 - | Coker 9184 | 59 - | 59.8 + |
| VA03W-235 | 70 | 57.8 | GA-951231-4E26 | 66 | 54.2 - | SS 560 | 59 - | 57.3 |
| VA04W-306 | 70 | 56.4 | Tribute-USG3592 Blend | 65 | 58.6 + | Magnolia | 59 - | 55.1 - |
| VA05W-414 | 70 | 55.8 | SS-MPV 57 | 65 | 58.0 | VA03W-110 | 59 - | 54.6 - |
| VA02W-555 | 70 | 55.1 - | USG 3342 | 65 | 56.5 | Coker 9436 | 59 - | 53.7 - |
| GA-951231-4E25 | 70 | 54.7 - | VA05W-125 | 65 | 56.3 | SS 8404 | 58 - | 57.0 |
| Pioneer 26R12 | 69 | 58.7 + | Vigoro V9510 | 65 | 56.2 | WB03-016 G | 58 - | 55.6 - |
| VA05W-53 | 69 | 58.4 + | VA04W-291 | 65 | 55.4 - | Dominion | 57 - | 54.8 - |
| SS 8309 | 69 | 57.9 | USG 3665 | 65 | 55.0 - | Pioneer 26R15 | 55 - | 54.3 - |
| VA05W-313 | 69 | 56.9 | DV03-9550 | 64 | 57.0 | Average | 66 | 56.9 |
| SS 520 | 69 | 55.7 - | VA04W-79 | 64 | 56.5 | LSD (0.05) | 6 | 1.2 |
| VA05W-255 | 69 | 55.1 - | | | | C.V. | 7 | 1.6 |

Released cultivars are shown in bold print.

Varieties are ordered by descending yield averages. 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, Kentland farm, Blacksburg, Va., 2007 harvest.

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Powdery Mildew (0-9) | Barley Yellow Dwarf Virus (0-9) | Spring Freeze (0-9) |
|-------------------------|-----------------|---------------------------|----------------------------|----------------|---------------------|----------------------------|---|---------------------------|
| VA03W-409 | 113 + | 57.8 | 43 + | 31 | 0.2 - | 0 - | 0 - | 2 - |
| Branson | 111 + | 57.7 | 41 | 33 + | 0.6 | 0 - | 1 | 1 - |
| M01-4377 | 108 + | 60.0 + | 43 + | 34 + | 5.3 + | 2 + | 1 | 1 - |
| VA05W-78 | 107 + | 56.8 - | 41 | 30 | 1.7 | 0 - | 1 | 2 - |
| VA05W-414 | 106 + | 59.8 + | 43 + | 34 + | 0.3 - | 0 - | 0 - | 2 - |
| VA01W-205 | 105 + | 58.9 | 41 | 28 - | 0.8 | 1 | 0 - | 2 - |
| VA05W-257 | 105 + | 56.9 - | 43 + | 32 | 1.0 | 2 + | 1 | 1 - |
| VA03W-412 | 104 + | 59.6 + | 41 | 31 | 0.6 | 0 - | 4 + | 3 |
| VA05W-258 | 104 + | 57.0 - | 42 + | 34 + | 5.3 + | 1 | 1 | 2 - |
| USG 3665 | 103 + | 57.8 | 42 + | 33 + | 1.4 | 1 | 1 | 2 - |
| VA04W-259 | 102 + | 58.8 | 44 + | 31 | 0.5 | 1 | 2 + | 2 - |
| VA05W-668 | 102 + | 60.6 + | 43 + | 32 | 4.6 + | 2 + | 1 | 1 - |
| EXP 703 | 101 + | 56.8 - | 44 + | 34 + | 3.6 | 0 - | 2 + | 2 - |
| VA02W-555 | 101 + | 57.4 | 40 - | 28 - | 3.1 | 0 - | 1 | 2 - |
| VA04W-571 | 101 + | 61.0 + | 44 + | 31 | 1.8 | 2 + | 1 | 1 - |
| USG 3342 | 100 + | 59.0 | 41 | 28 - | 0.7 | 0 - | 1 | 3 |
| VA04W-306 | 100 + | 57.6 | 41 | 31 | 0.4 | 0 - | 1 | 3 |
| VA03W-310 | 100 + | 56.1 - | 40 - | 31 | 4.4 + | 0 - | 0 - | 2 - |
| NC00-15332 | 97 | 58.0 | 42 + | 34 + | 0.2 - | 2 + | 2 + | 3 |
| VA05W-250 | 97 | 57.2 - | 43 + | 33 + | 1.7 | 0 - | 1 | 3 |
| SS 560 | 97 | 59.0 | 43 + | 31 | 0.3 - | 0 - | 3 + | 2 - |
| Chesapeake | 97 | 59.0 | 41 | 29 - | 6.0 + | 0 - | 1 | 2 - |
| VA05W-251 | 97 | 57.7 | 42 + | 30 | 3.9 | 0 - | 1 | 2 - |
| VA04W-592 | 97 | 58.3 | 42 + | 34 + | 2.4 | 0 - | 2 + | 1 - |
| SS 8309 | 97 | 59.8 + | 42 + | 34 + | 0.2 - | 0 - | 1 | 1 - |
| USG 3706 | 96 | 58.4 | 40 - | 30 | 0.7 | 0 - | 2 + | 3 |
| VA03W-235 | 96 | 59.7 + | 43 + | 32 | 1.2 | 0 - | 1 | 3 |
| EXP 701 | 96 | 54.2 - | 42 + | 33 + | 7.0 + | 4 + | 2 + | 2 - |
| VA04W-230 | 96 | 56.8 - | 41 | 31 | 0.3 - | 0 - | 1 | 2 - |
| Dominion | 96 | 58.6 | 42 + | 29 - | 0.3 - | 0 - | 1 | 2 - |
| VA05W-436 | 96 | 58.1 | 43 + | 33 + | 0.2 - | 5 + | 2 + | 1 - |
| Sisson | 95 | 58.5 | 41 | 29 - | 2.4 | 0 - | 1 | 4 + |
| Magnolia | 95 | 58.9 | 42 + | 35 + | 0.5 | 4 + | 1 | 3 |
| Featherstone 176 | 95 | 56.6 - | 40 - | 33 + | 5.3 + | 0 - | 1 | 3 |
| Jamestown | 95 | 59.9 + | 39 - | 30 | 1.6 | 0 - | 1 | 3 |
| Coker 9553 | 95 | 60.3 + | 39 - | 31 | 2.4 | 1 | 2 + | 2 - |
| VA03W-110 | 94 | 57.8 | 42 + | 31 | 3.0 | 1 | 1 | 3 |
| AGS 2050 | 94 | 60.3 + | 41 | 32 | 4.1 | 1 | 1 | 2 - |
| VA05W-125 | 93 | 57.7 | 40 - | 30 | 2.8 | 1 | 1 | 3 |
| VA05W-108 | 93 | 58.3 | 42 + | 30 | 3.0 | 0 - | 1 | 3 |
| VA04W-90 | 93 | 59.1 | 42 + | 31 | 1.8 | 0 - | 1 | 3 |
| VA05W-517 | 93 | 59.2 | 41 | 33 + | 5.7 + | 0 - | 1 | 2 - |

Table 27. Summary of performance of entries in the Virginia Tech Wheat Test, Kentland farm, Blacksburg, Va., 2007 harvest. (cont.)

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Powdery Mildew (0-9) | Barley Yellow Dwarf Virus (0-9) | Spring Freeze (0-9) |
|------------------------------|-----------------|---------------------------|----------------------------|----------------|---------------------|----------------------------|---|---------------------------|
| Tribute-Neuse Blend | 93 | 61.2 + | 42 + | 31 | 1.1 | 0 - | 1 | 2 - |
| SS-MPV 57 | 92 | 56.2 - | 43 + | 33 + | 3.3 | 0 - | 3 + | 4 + |
| Panola | 92 | 57.0 - | 41 | 32 | 1.9 | 1 | 1 | 2 - |
| VA03W-434 | 92 | 57.7 | 43 + | 28 - | 0.2 - | 0 - | 1 | 2 - |
| Pioneer 26R15 | 92 | 57.6 | 44 + | 32 | 1.3 | 0 - | 3 + | 1 - |
| VA04W-227 | 91 | 57.6 | 41 | 31 | 2.1 | 0 - | 2 + | 4 + |
| Coker 9184 | 91 | 61.3 + | 42 + | 30 | 0.3 - | 1 | 2 + | 3 |
| Coker 9436 | 91 | 58.4 | 45 + | 31 | 0.6 | 1 | 1 | 2 - |
| Red Ruby | 91 | 58.9 | 43 + | 33 + | 0.2 - | 0 - | 1 | 2 - |
| VA04W-515 | 90 | 59.4 | 40 - | 32 | 1.7 | 1 | 1 | 4 + |
| Renwood 3260 | 90 | 59.3 | 40 - | 31 | 4.3 + | 0 - | 1 | 4 + |
| VA05W-168 | 90 | 62.1 + | 41 | 29 - | 5.0 + | 0 - | 1 | 2 - |
| Neuse | 90 | 60.5 + | 45 + | 30 | 1.0 | 0 - | 1 | 2 - |
| USG 3209 | 89 | 57.1 - | 41 | 29 - | 4.6 + | 2 + | 1 | 4 + |
| VA00W-38 | 89 | 56.7 - | 42 + | 32 | 4.2 | 1 | 1 | 4 + |
| VA04W-439 | 89 | 59.0 | 40 - | 31 | 3.3 | 0 - | 2 + | 4 + |
| Vigoro V9713 | 89 | 59.1 | 44 + | 31 | 1.0 | 2 + | 2 + | 2 - |
| Tribute | 89 | 61.6 + | 42 + | 31 | 3.1 | 0 - | 2 + | 2 - |
| McCormick | 89 | 61.1 + | 41 | 29 - | 0.7 | 0 - | 1 | 2 - |
| VA04W-79 | 88 | 58.8 | 42 + | 32 | 0.3 - | 1 | 2 + | 4 + |
| Neuse-USG3592 Blend | 88 | 60.2 + | 43 + | 32 | 2.1 | 0 - | 1 | 3 |
| VA04W-291 | 87 | 56.4 - | 40 - | 29 - | 2.7 | 0 - | 1 | 5 + |
| SS 8404 | 87 | 60.8 + | 42 + | 27 - | 0.2 - | 2 + | 1 | 4 + |
| Pioneer 26R24 | 87 | 57.0 - | 41 | 33 + | 0.9 | 0 - | 2 + | 4 + |
| WB03-016 G | 87 | 56.2 - | 45 + | 33 + | 1.0 | 0 - | 5 + | 3 |
| VA02W-398 | 86 | 56.2 - | 41 | 31 | 1.0 | 0 - | 3 + | 5 + |
| USG 3592 | 86 | 57.3 | 42 + | 33 + | 6.7 + | 2 + | 1 | 4 + |
| VA03W-135 | 86 | 57.1 - | 41 | 30 | 0.8 | 0 - | 2 + | 4 + |
| Pioneer 26R31 | 86 | 58.3 | 41 | 29 - | 0.3 - | 0 - | 2 + | 4 + |
| VA05W-363 | 85 | 56.3 - | 39 - | 29 - | 4.8 + | 0 - | 2 + | 4 + |
| Pioneer 26R12 | 85 | 60.1 + | 44 + | 31 | 0.2 - | 2 + | 1 | 3 |
| SS 8302 | 85 | 59.3 | 44 + | 32 | 0.2 - | 1 | 1 | 3 |
| Tribute-USG3592 Blend | 85 | 59.6 + | 42 + | 32 | 5.0 + | 0 - | 2 + | 3 |
| VA03W-203 | 85 | 58.7 | 39 - | 29 - | 2.0 | 0 - | 1 | 3 |
| VA05W-53 | 83 - | 58.5 | 40 - | 28 - | 2.8 | 0 - | 1 | 4 + |
| GA-951231-4E26 | 82 - | 56.9 - | 38 - | 27 - | 3.5 | 3 + | 1 | 6 + |
| SS 520 | 80 - | 57.9 | 38 - | 30 | 0.7 | 0 - | 2 + | 5 + |
| VA05W-255 | 80 - | 56.8 - | 39 - | 31 | 3.6 | 4 + | 1 | 4 + |
| Vigoro V9510 | 80 - | 58.8 | 42 + | 31 | 2.0 | 0 - | 2 + | 3 |
| GA-96693-4E16 | 79 - | 55.7 - | 38 - | 30 | 3.8 | 1 | 2 + | 6 + |

Table 27. Summary of performance of entries in the Virginia Tech Wheat Test, Kentland farm, Blacksburg, Va., 2007 harvest. (cont.)

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Powdery Mildew (0-9) | Barley Yellow Dwarf Virus (0-9) | Spring Freeze (0-9) |
|----------------------|-----------------|---------------------------|----------------------------|----------------|---------------------|----------------------------|---|---------------------------|
| VA02W-713 | 78 - | 59.8 + | 39 - | 31 | 4.5 + | 0 - | 3 + | 5 + |
| VA05W-448 | 78 - | 59.0 | 41 | 27 - | 2.4 | 0 - | 2 + | 4 + |
| Pioneer 26R87 | 77 - | 60.3 + | 40 - | 30 | 0.3 - | 0 - | 3 + | 5 + |
| VA05W-317 | 77 - | 57.0 - | 42 + | 29 - | 1.9 | 4 + | 4 + | 4 + |
| VA05W-151 | 76 - | 58.2 | 40 - | 28 - | 6.0 + | 0 - | 1 | 4 + |
| VA05W-65 | 75 - | 60.2 + | 41 | 28 - | 1.2 | 0 - | 2 + | 7 + |
| VA05W-313 | 74 - | 55.2 - | 39 - | 30 | 5.5 + | 0 - | 2 + | 4 + |
| GA-951231-4E25 | 72 - | 55.8 - | 37 - | 28 - | 2.9 | 3 + | 2 + | 7 + |
| Massey | 72 - | 57.5 | 42 + | 34 + | 4.0 | 1 | 1 | 3 |
| DV03-9550 | 66 - | 57.6 | 40 - | 27 - | 1.8 | 0 - | 2 + | 8 + |
| Average | 91 | 58.4 | 41 | 31 | 2.3 | 1 | 1 | 3 |
| LSD (0.05) | 7 | 1.2 | 1 | 2 | 2.0 | 1 | 1 | 1 |
| C.V. | 5 | 1.5 | 1 | 4 | — | — | — | — |

Released cultivars are shown in bold print.

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

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.

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

Table 28. Summary of performance of entries in the Virginia Tech Wheat Test, planted no-till at Tidewater AREC, Holland, Va., 2007 harvest.

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Leaf Rust (0-9) | Line | Yield (Bu/a) | Test Weight (Lb/bu) | Leaf Rust (0-9) |
|----------------------|-----------------|---------------------------|-----------------------|-------------------------|-----------------|---------------------------|-----------------------|
| USG 3665 | 74 + | 60.6 | 0 - | VA05W-168 | 63 | 62.9 + | 0 - |
| VA05W-414 | 73 + | 60.2 | 3 | Tribute- | 63 | 62.1 + | 0 - |
| VA03W-110 | 72 + | 60.2 | 0 - | USG3592 Blend | | | |
| EXP 701 | 71 + | 57.9 - | 1 | Renwood 3260 | 63 | 61.5 | 0 - |
| VA03W-235 | 70 + | 61.1 | 4 + | VA04W-515 | 63 | 61.3 | 0 - |
| USG 3209 | 70 + | 60.4 | 4 + | VA05W-317 | 63 | 61.1 | 0 - |
| SS 8309 | 70 + | 60.6 | 3 | VA05W-251 | 63 | 60.5 | 0 - |
| VA05W-436 | 70 + | 61.0 | 1 | VA03W-434 | 63 | 59.5 - | 0 - |
| Red Ruby | 69 | 60.7 | 5 + | VA05W-517 | 62 | 63.3 + | 4 + |
| VA05W-668 | 69 | 61.9 + | 4 + | VA05W-65 | 62 | 62.7 + | 4 + |
| VA04W-259 | 69 | 60.9 | 0 - | Chesapeake | 62 | 61.5 | 3 |
| VA05W-250 | 69 | 60.7 | 0 - | VA04W-230 | 62 | 61.2 | 2 |
| AGS 2050 | 68 | 61.4 | 2 | VA04W-291 | 62 | 60.7 | 2 |
| NC00-15332 | 68 | 59.0 - | 2 | Panola | 62 | 59.7 - | 2 |
| Pioneer 26R15 | 68 | 59.0 - | 1 | Tribute-Neuse | 62 | 62.3 + | 0 - |
| VA04W-592 | 68 | 60.7 | 0 - | Blend | | | |
| SS 8302 | 67 | 61.1 | 3 | Coker 9184 | 62 | 62.0 + | 0 - |
| Vigoro V9510 | 67 | 60.5 | 3 | Neuse | 62 | 61.9 + | 0 - |
| VA05W-108 | 67 | 59.8 - | 1 | VA05W-255 | 62 | 60.1 - | 0 - |
| VA03W-310 | 67 | 59.1 - | 1 | VA02W-398 | 62 | 59.8 - | 0 - |
| VA05W-151 | 66 | 60.6 | 4 + | Sisson | 61 | 60.7 | 6 + |
| VA04W-571 | 66 | 62.2 + | 3 | VA05W-125 | 61 | 61.3 | 3 |
| M01-4377 | 66 | 62.0 + | 3 | VA05W-78 | 61 | 61.4 | 2 |
| VA05W-448 | 66 | 61.4 | 2 | Pioneer 26R31 | 61 | 59.5 - | 2 |
| Dominion | 66 | 60.8 | 1 | USG 3706 | 61 | 61.3 | 1 |
| VA04W-227 | 65 | 61.4 | 4 + | VA00W-38 | 60 | 60.5 | 4 + |
| Pioneer 26R24 | 65 | 61.5 | 3 | SS 8404 | 60 | 61.5 | 3 |
| VA03W-203 | 65 | 61.2 | 2 | VA05W-53 | 59 | 61.9 + | 6 + |
| USG 3592 | 65 | 61.4 | 1 | Featherstone 176 | 59 | 61.5 | 4 + |
| GA-96693-4E16 | 65 | 61.3 | 0 - | SS 560 | 59 | 60.0 - | 4 + |
| EXP 703 | 64 | 59.8 - | 4 + | VA02W-555 | 59 | 60.1 - | 3 |
| VA04W-90 | 64 | 61.2 | 3 | VA05W-313 | 59 | 60.6 | 2 |
| SS-MPV 57 | 64 | 59.8 - | 3 | GA-951231-4E25 | 59 | 61.2 | 1 |
| WB03-016 G | 64 | 59.4 - | 3 | USG 3342 | 59 | 60.1 - | 1 |
| VA04W-79 | 64 | 61.2 | 2 | Neuse-USG3592 | 59 | 61.4 | 0 - |
| GA-951231-4E26 | 64 | 61.2 | 2 | Blend | | | |
| Pioneer 26R12 | 64 | 61.0 | 2 | VA02W-713 | 58 | 61.8 + | 5 + |
| VA05W-258 | 64 | 60.2 | 1 | Massey | 58 | 60.9 | 5 + |
| Tribute | 64 | 62.6 + | 0 - | VA03W-412 | 58 | 62.0 + | 2 |
| Branson | 64 | 59.4 - | 0 - | Coker 9553 | 58 | 61.7 + | 1 |
| VA03W-409 | 64 | 59.3 - | 0 - | VA03W-135 | 58 | 59.1 - | 1 |
| McCormick | 63 | 62.5 + | 5 + | Coker 9436 | 58 | 58.5 - | 1 |
| Vigoro V9713 | 63 | 60.2 | 4 + | VA05W-363 | 56 - | 59.7 - | 0 - |
| Jamestown | 63 | 62.0 + | 3 | DV03-9550 | 55 - | 62.0 + | 5 + |
| VA04W-306 | 63 | 61.0 | 2 | VA04W-439 | 51 - | 61.2 | 6 + |
| Magnolia | 63 | 60.9 | 2 | Pioneer 26R87 | 49 - | 63.7 + | 1 |
| SS 520 | 63 | 60.3 | 2 | Average | 63 | 60.9 | 2 |
| VA05W-257 | 63 | 59.5 - | 2 | LSD (0.05) | 7 | 0.9 | 2 |
| VA01W-205 | 63 | 60.7 | 1 | C.V. | 8 | 0.9 | — |

Released cultivars are shown in bold print.

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

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

Table 29. Summary of performance of entries in the Virginia Tech Wheat Test planted no-till at Warsaw, Va., 2007 harvest.

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Powdery Mildew (0-9) | Leaf Rust (0-9) | Barley Yellow Dwarf Virus (0-9) | Spring Freeze (0-9) |
|--------------------------------|-----------------|---------------------------|----------------------------|----------------|---------------------|----------------------------|-----------------------|---|---------------------------|
| VA04W-259 | 94 + | 60.6 | 33 + | 28 | 0.2 | 0 | 1 | 0 | 2 |
| VA05W-125 | 94 + | 61.3 | 28 - | 28 | 0.5 | 0 | 3 + | 1 + | 1 |
| VA05W-258 | 93 + | 60.2 - | 30 + | 32 + | 0.4 | 1 + | 1 | 0 | 1 |
| VA03W-409 | 93 + | 59.7 - | 33 + | 29 | 0.3 | 0 | 0 - | 0 | 1 |
| USG 3665 | 92 | 60.8 | 32 + | 29 | 0.4 | 0 | 0 - | 1 + | 1 |
| EXP 703 | 91 | 59.0 - | 33 + | 30 + | 0.3 | 0 | 1 | 0 | 2 |
| VA04W-571 | 91 | 62.4 + | 34 + | 29 | 0.3 | 0 | 1 | 0 | 0 |
| VA03W-203 | 90 | 60.9 | 28 - | 28 | 0.4 | 0 | 1 | 1 + | 2 |
| VA01W-205 | 90 | 61.4 | 30 + | 27 | 0.3 | 0 | 1 | 1 + | 1 |
| VA05W-257 | 90 | 60.1 - | 33 + | 30 + | 0.3 | 0 | 2 + | 0 | 1 |
| VA05W-414 | 90 | 60.0 - | 33 + | 30 + | 1.3 + | 0 | 2 + | 1 + | 0 |
| VA04W-291 | 89 | 60.7 | 25 - | 28 | 0.4 | 0 | 1 | 1 + | 6 |
| Tribute | 89 | 63.2 + | 29 | 26 - | 0.4 | 0 | 0 - | 1 + | 1 |
| VA03W-110 | 88 | 59.9 - | 31 + | 27 | 0.2 | 0 | 1 | 0 | 2 |
| VA05W-78 | 88 | 60.9 | 26 - | 27 | 0.2 | 0 | 1 | 0 | 2 |
| VA05W-250 | 88 | 60.1 - | 33 + | 32 + | 0.8 + | 0 | 0 - | 1 + | 1 |
| WB03-016 G | 88 | 59.1 - | 34 + | 32 + | 0.5 | 0 | 2 + | 2 + | 0 |
| Branson | 88 | 60.1 - | 32 + | 31 + | 1.3 + | 0 | 0 - | 0 | 0 |
| VA04W-306 | 87 | 61.3 | 27 - | 28 | 0.4 | 0 | 1 | 0 | 1 |
| Pioneer 26R15 | 87 | 59.3 - | 33 + | 30 + | 0.2 | 0 | 1 | 0 | 1 |
| EXP 701 | 87 | 58.2 - | 32 + | 32 + | 0.3 | 1 + | 1 | 0 | 0 |
| VA04W-230 | 86 | 60.9 | 28 - | 28 | 0.3 | 0 | 1 | 0 | 5 |
| VA05W-251 | 86 | 60.9 | 28 - | 27 | 0.5 | 0 | 0 - | 1 + | 4 |
| NC00-15332 | 86 | 59.2 - | 31 + | 31 + | 0.3 | 0 | 2 + | 0 | 2 |
| VA04W-592 | 86 | 60.7 | 33 + | 32 + | 0.4 | 0 | 1 | 1 + | 1 |
| VA04W-227 | 86 | 60.7 | 30 + | 27 | 0.5 | 0 | 2 + | 0 | 1 |
| SS 8302 | 85 | 61.1 | 32 + | 31 + | 0.2 | 1 + | 2 + | 2 + | 2 |
| VA05W-517 | 85 | 63.7 + | 30 + | 30 + | 0.4 | 0 | 2 + | 0 | 2 |
| VA02W-555 | 85 | 60.0 - | 29 | 25 - | 0.3 | 0 | 2 + | 0 | 2 |
| AGS 2050 | 85 | 61.7 + | 31 + | 31 + | 0.3 | 0 | 1 | 0 | 2 |
| McCormick | 85 | 62.8 + | 30 + | 27 | 0.3 | 0 | 5 + | 1 + | 1 |
| VA05W-108 | 85 | 59.1 - | 33 + | 27 | 0.3 | 0 | 1 | 1 + | 1 |
| VA03W-235 | 85 | 60.6 | 34 + | 31 + | 0.3 | 0 | 2 + | 0 | 1 |
| SS 8309 | 85 | 60.1 - | 33 + | 30 + | 0.4 | 0 | 1 | 1 + | 0 |
| SS 8404 | 84 | 62.1 + | 30 + | 26 - | 0.2 | 0 | 2 + | 0 | 1 |
| VA05W-668 | 84 | 61.1 | 33 + | 29 | 0.3 | 0 | 1 | 0 | 1 |
| VA05W-448 | 83 | 61.2 | 27 - | 28 | 0.3 | 0 | 1 | 0 | 2 |
| VA05W-151 | 83 | 63.0 + | 27 - | 28 | 0.3 | 0 | 2 + | 1 + | 1 |
| Tribute-Neuse Blend | 83 | 62.3 + | 31 + | 29 | 0.7 | 0 | 0 - | 0 | 1 |
| SS 560 | 82 | 59.7 - | 32 + | 28 | 0.2 | 0 | 2 + | 1 + | 2 |
| VA05W-168 | 82 | 63.3 + | 28 - | 27 | 0.5 | 0 | 0 - | 0 | 2 |
| Neuse-USG3592 Blend | 82 | 61.7 + | 32 + | 31 + | 0.3 | 0 | 0 - | 1 + | 0 |

Table 29. Summary of performance of entries in the Virginia Tech Wheat Test planted no-till at Warsaw, Va., 2007 harvest. (cont.)

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Powdery Mildew (0-9) | Leaf Rust (0-9) | Barley Yellow Dwarf Virus (0-9) | Spring Freeze (0-9) |
|-----------------------------------|-----------------|---------------------------|----------------------------|----------------|---------------------|----------------------------|-----------------------|---|---------------------------|
| Coker 9184 | 82 | 62.4 + | 32 + | 28 | 0.2 | 0 | 0 - | 1 + | 0 |
| SS-MPV 57 | 81 | 58.9 - | 32 + | 28 | 0.2 | 0 | 2 + | 1 + | 7 |
| VA05W-317 | 81 | 60.6 | 30 + | 24 - | 0.3 | 0 | 0 - | 1 + | 2 |
| Pioneer 26R24 | 81 | 60.9 | 29 | 28 | 0.3 | 0 | 1 | 0 | 2 |
| Magnolia | 81 | 61.1 | 28 - | 30 + | 0.3 | 1 + | 1 | 0 | 1 |
| Panola | 81 | 60.2 - | 28 - | 29 | 0.3 | 0 | 1 | 0 | 1 |
| Featherstone 176 | 80 | 60.7 | 27 - | 28 | 0.3 | 0 | 3 + | 1 + | 3 |
| Tribute- USG3592 Blend | 80 | 62.4 + | 30 + | 30 + | 0.4 | 0 | 1 | 0 | 3 |
| VA03W-310 | 80 | 59.2 - | 28 - | 29 | 0.4 | 0 | 0 - | 1 + | 2 |
| VA03W-412 | 80 | 61.8 + | 31 + | 29 | 0.2 | 0 | 2 + | 0 | 2 |
| Pioneer 26R12 | 80 | 61.5 | 32 + | 28 | 0.2 | 0 | 1 | 0 | 2 |
| Dominion | 80 | 60.7 | 30 + | 28 | 0.2 | 0 | 1 | 1 + | 1 |
| USG 3209 | 80 | 59.8 - | 28 - | 26 - | 0.4 | 0 | 4 + | 0 | 1 |
| Red Ruby | 80 | 60.5 | 33 + | 29 | 0.2 | 0 | 3 + | 0 | 1 |
| USG 3342 | 80 | 61.2 | 30 + | 27 | 0.2 | 0 | 1 | 0 | 0 |
| VA05W-53 | 79 | 61.7 + | 25 - | 26 - | 0.3 | 0 | 2 + | 1 + | 6 |
| VA04W-79 | 79 | 61.2 | 32 + | 30 + | 0.3 | 0 | 1 | 1 + | 4 |
| GA-951231-4E26 | 79 | 61.4 | 26 - | 29 | 0.2 | 0 | 0 - | 0 | 4 |
| Coker 9553 | 79 | 62.2 + | 27 - | 28 | 0.3 | 1 + | 1 | 1 + | 3 |
| VA00W-38 | 79 | 60.1 - | 27 - | 27 | 0.4 | 0 | 2 + | 1 + | 1 |
| Vigoro V9713 | 79 | 60.5 | 33 + | 30 + | 0.5 | 0 | 1 | 0 | 1 |
| VA05W-436 | 79 | 60.3 | 30 + | 28 | 0.2 | 0 | 1 | 0 | 1 |
| Sisson | 78 | 60.1 - | 31 + | 28 | 0.5 | 0 | 6 + | 0 | 4 |
| VA04W-90 | 78 | 61.6 + | 29 | 28 | 0.2 | 0 | 3 + | 1 + | 3 |
| Vigoro V9510 | 78 | 60.7 | 30 + | 27 | 0.3 | 0 | 2 + | 1 + | 3 |
| VA04W-515 | 78 | 61.8 + | 28 - | 29 | 0.4 | 0 | 2 + | 1 + | 2 |
| GA-96693-4E16 | 78 | 61.1 | 24 - | 28 | 0.5 | 0 | 1 | 1 + | 0 |
| M01-4377 | 78 | 61.7 + | 32 + | 32 + | 0.4 | 1 + | 2 + | 0 | 0 |
| VA05W-255 | 77 | 60.3 | 25 - | 27 | 0.4 | 1 + | 1 | 1 + | 2 |
| VA05W-363 | 77 | 59.3 - | 25 - | 27 | 0.5 | 0 | 0 - | 1 + | 2 |
| USG 3706 | 77 | 61.4 | 28 - | 26 - | 0.3 | 0 | 1 | 1 + | 1 |
| Neuse | 77 | 61.9 + | 33 + | 29 | 0.2 | 0 | 0 - | 0 | 1 |
| VA02W-398 | 76 | 58.3 - | 28 - | 28 | 0.4 | 0 | 1 | 2 + | 5 |
| SS 520 | 76 | 60.3 | 25 - | 29 | 0.3 | 0 | 1 | 1 + | 4 |
| VA03W-434 | 76 | 59.0 - | 32 + | 24 - | 0.2 | 0 | 1 | 1 + | 0 |
| Chesapeake | 76 | 61.8 + | 31 + | 28 | 0.3 | 0 | 2 + | 0 | 0 |
| VA04W-439 | 75 | 61.5 | 27 - | 28 | 0.2 | 0 | 4 + | 1 + | 5 |
| USG 3592 | 75 | 61.4 | 30 + | 31 + | 0.3 | 0 | 0 - | 1 + | 1 |
| VA03W-135 | 74 | 57.7 - | 32 + | 28 | 0.3 | 0 | 1 | 1 + | 3 |
| Renwood 3260 | 74 | 61.9 + | 27 - | 29 | 0.4 | 0 | 1 | 1 + | 2 |
| Coker 9436 | 73 | 58.6 - | 33 + | 27 | 0.5 | 0 | 1 | 1 + | 0 |
| GA-951231-4E25 | 72 | 61.6 + | 26 - | 27 | 0.2 | 0 | 1 | 1 + | 5 |

Table 29. Summary of performance of entries in the Virginia Tech Wheat Test planted no-till at Warsaw, Va., 2007 harvest. (cont.)

| Line | Yield (Bu/a) | Test Weight (Lb/bu) | Date Headed (Mar31+) | Height (In) | Lodging (0.2-10) | Powdery Mildew (0-9) | Leaf Rust (0-9) | Barley Yellow Dwarf Virus (0-9) | Spring Freeze (0-9) |
|----------------------|-----------------|---------------------------|----------------------------|----------------|---------------------|----------------------------|-----------------------|---|---------------------------|
| VA05W-313 | 72 | 60.5 | 25 - | 28 | 0.4 | 0 | 1 | 1 + | 2 |
| Pioneer 26R31 | 72 | 60.3 | 27 - | 23 - | 0.2 | 0 | 1 | 1 + | 2 |
| Jamestown | 71 | 62.5 + | 25 - | 26 - | 0.2 | 0 | 1 | 1 + | 5 |
| DV03-9550 | 69 - | 61.9 + | 26 - | 27 | 0.3 | 0 | 2 + | 1 + | 7 |
| VA02W-713 | 69 - | 61.8 + | 26 - | 29 | 0.4 | 0 | 4 + | 0 | 4 |
| Massey | 69 - | 61.0 | 28 - | 31 + | 0.7 | 0 | 6 + | 1 + | 2 |
| Pioneer 26R87 | 67 - | 63.1 + | 27 - | 27 | 0.2 | 0 | 1 | 1 + | 3 |
| VA05W-65 | 65 - | 63.4 + | 26 - | 25 - | 0.3 | 0 | 1 | 0 | 7 |
| Average | 81 | 60.9 | 29 | 28 | 0.4 | 0 | 1 | 0 | 2 |
| LSD (0.05) | 12 | 0.7 | 1 | 2 | 0.4 | 1 | 1 | 1 | — |
| C.V. | 9 | 0.7 | 3 | 6 | — | — | — | — | — |

Released cultivars are shown in bold print.

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

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.

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

Table 30. Summary of performance of entries planted no-till in the Virginia Tech Wheat Test (Warsaw and Holland, Va.), 2007 harvest.

| Line | Yield (Bu/a) (2) | Test Weight (Lb/bu) (2) | Date Headed (Mar31+) (1) | Height (In) (1) | Lodging (0.2-10) (1) | Powdery Mildew (0-9) (1) | Leaf Rust (0-9) (2) | Barley Yel- low Dwarf Virus (0-9) (1) | Spring Freeze (0-9) (1) |
|----------------------|------------------------|-------------------------------|-----------------------------------|-----------------------|----------------------------|-----------------------------------|---------------------------|---|----------------------------------|
| USG 3665 | 83 + | 60.7 | 32 + | 29 | 0.4 | 0 | 0 - | 1 + | 1 |
| VA05W-414 | 80 + | 60.1 - | 33 + | 30 + | 1.3 + | 0 | 2 + | 1 + | 0 |
| VA03W-110 | 80 + | 60.0 - | 31 + | 27 | 0.2 | 0 | 0 - | 0 | 2 |
| VA05W-258 | 79 + | 60.2 - | 30 + | 32 + | 0.4 | 1 + | 1 | 0 | 1 |
| EXP 701 | 79 + | 58.1 - | 32 + | 32 + | 0.3 | 1 + | 1 | 0 | 0 |
| VA04W-259 | 79 + | 60.8 | 33 + | 28 | 0.2 | 0 | 1 | 0 | 2 |
| VA03W-203 | 78 + | 61.1 | 28 - | 28 | 0.4 | 0 | 1 | 1 + | 2 |
| VA04W-592 | 77 + | 60.7 | 33 + | 32 + | 0.4 | 0 | 1 | 1 + | 1 |
| SS 8309 | 77 + | 60.4 - | 33 + | 30 + | 0.4 | 0 | 1 | 1 + | 0 |
| VA01W-205 | 77 + | 61.1 | 30 + | 27 | 0.3 | 0 | 1 | 1 + | 1 |
| VA05W-250 | 77 + | 60.4 - | 33 + | 32 + | 0.8 + | 0 | 0 - | 1 + | 1 |
| VA04W-571 | 77 + | 62.2 + | 34 + | 29 | 0.3 | 0 | 2 + | 0 | 0 |
| AGS 2050 | 77 + | 61.6 + | 31 + | 31 + | 0.3 | 0 | 1 | 0 | 2 |
| Pioneer 26R15 | 77 + | 59.2 - | 33 + | 30 + | 0.2 | 0 | 1 | 0 | 1 |
| SS 8302 | 76 | 61.1 | 32 + | 31 + | 0.2 | 1 + | 2 + | 2 + | 2 |
| VA04W-291 | 76 | 60.7 | 25 - | 28 | 0.4 | 0 | 1 | 1 + | 6 |
| VA03W-235 | 76 | 60.9 | 34 + | 31 + | 0.3 | 0 | 2 + | 0 | 1 |
| NC00-15332 | 76 | 59.1 - | 31 + | 31 + | 0.3 | 0 | 2 + | 0 | 2 |
| EXP 703 | 76 | 59.5 - | 33 + | 30 + | 0.3 | 0 | 2 + | 0 | 2 |
| VA03W-409 | 76 | 59.5 - | 33 + | 29 | 0.3 | 0 | 0 - | 0 | 1 |
| VA05W-125 | 75 | 61.3 | 28 - | 28 | 0.5 | 0 | 3 + | 1 + | 1 |
| VA05W-257 | 75 | 59.7 - | 33 + | 30 + | 0.3 | 0 | 2 + | 0 | 1 |
| VA05W-668 | 75 | 61.5 + | 33 + | 29 | 0.3 | 0 | 2 + | 0 | 1 |
| WB03-016 G | 74 | 59.2 - | 34 + | 32 + | 0.5 | 0 | 2 + | 2 + | 0 |
| VA05W-108 | 74 | 59.5 - | 33 + | 27 | 0.3 | 0 | 1 | 1 + | 1 |
| VA05W-251 | 74 | 60.7 | 28 - | 27 | 0.5 | 0 | 0 - | 1 + | 4 |
| Tribute | 74 | 62.9 + | 29 | 26 - | 0.4 | 0 | 0 - | 1 + | 1 |
| USG 3209 | 74 | 60.2 - | 28 - | 26 - | 0.4 | 0 | 4 + | 0 | 1 |
| Red Ruby | 74 | 60.6 | 33 + | 29 | 0.2 | 0 | 3 + | 0 | 1 |
| VA04W-227 | 74 | 61.1 | 30 + | 27 | 0.5 | 0 | 2 + | 0 | 1 |
| VA05W-436 | 74 | 60.7 | 30 + | 28 | 0.2 | 0 | 1 | 0 | 1 |
| Branson | 74 | 59.7 - | 32 + | 31 + | 1.3 + | 0 | 0 - | 0 | 0 |
| McCormick | 73 | 62.6 + | 30 + | 27 | 0.3 | 0 | 5 + | 1 + | 1 |
| VA05W-151 | 73 | 61.6 + | 27 - | 28 | 0.3 | 0 | 2 + | 1 + | 1 |
| Vigoro V9510 | 73 | 60.6 | 30 + | 27 | 0.3 | 0 | 2 + | 1 + | 3 |
| SS-MPV 57 | 73 | 59.3 - | 32 + | 28 | 0.2 | 0 | 2 + | 1 + | 7 |
| VA03W-310 | 73 | 59.2 - | 28 - | 29 | 0.4 | 0 | 0 - | 1 + | 2 |
| VA04W-306 | 73 | 61.1 | 27 - | 28 | 0.4 | 0 | 1 | 0 | 1 |
| VA05W-448 | 73 | 61.3 | 27 - | 28 | 0.3 | 0 | 1 | 0 | 2 |
| VA04W-79 | 72 | 61.2 | 32 + | 30 + | 0.3 | 0 | 1 | 1 + | 4 |
| Dominion | 72 | 60.8 | 30 + | 28 | 0.2 | 0 | 1 | 1 + | 1 |
| VA05W-317 | 72 | 60.9 | 30 + | 24 - | 0.3 | 0 | 0 - | 1 + | 2 |

Table 30. Summary of performance of entries planted no-till in the Virginia Tech Wheat Test (Warsaw and Holland, Va.), 2007 harvest. (cont.)

| Line | Yield (Bu/a) (2) | Test Weight (Lb/bu) (2) | Date Headed (Mar31+) (1) | Height (In) (1) | Lodging (0.2-10) (1) | Powdery Mildew (0-9) (1) | Leaf Rust (0-9) (2) | Barley Yel- low Dwarf Virus (0-9) (1) | Spring Freeze (0-9) (1) |
|------------------------------|------------------------|-------------------------------|-----------------------------------|-----------------------|----------------------------|-----------------------------------|---------------------------|---|----------------------------------|
| VA05W-517 | 72 | 63.5 + | 30 + | 30 + | 0.4 | 0 | 2 + | 0 | 2 |
| Pioneer 26R24 | 72 | 61.2 | 29 | 28 | 0.3 | 0 | 2 + | 0 | 2 |
| VA04W-230 | 72 | 61.1 | 28 - | 28 | 0.3 | 0 | 2 + | 0 | 5 |
| GA-951231-4E26 | 72 | 61.3 | 26 - | 29 | 0.2 | 0 | 1 | 0 | 4 |
| VA05W-78 | 72 | 61.2 | 26 - | 27 | 0.2 | 0 | 1 | 0 | 2 |
| GA-96693-4E16 | 71 | 61.2 | 24 - | 28 | 0.5 | 0 | 0 - | 1 + | 0 |
| Coker 9184 | 71 | 62.2 + | 32 + | 28 | 0.2 | 0 | 0 - | 1 + | 0 |
| M01-4377 | 71 | 61.8 + | 32 + | 32 + | 0.4 | 1 + | 2 + | 0 | 0 |
| Magnolia | 71 | 61.0 | 28 - | 30 + | 0.3 | 1 + | 1 | 0 | 1 |
| Pioneer 26R12 | 71 | 61.2 | 32 + | 28 | 0.2 | 0 | 1 | 0 | 2 |
| Tribute-Neuse Blend | 71 | 62.3 + | 31 + | 29 | 0.7 | 0 | 0 - | 0 | 1 |
| VA05W-168 | 71 | 63.1 + | 28 - | 27 | 0.5 | 0 | 0 - | 0 | 2 |
| VA04W-90 | 70 | 61.4 + | 29 | 28 | 0.2 | 0 | 3 + | 1 + | 3 |
| VA04W-515 | 70 | 61.5 + | 28 - | 29 | 0.4 | 0 | 1 | 1 + | 2 |
| USG 3592 | 70 | 61.4 + | 30 + | 31 + | 0.3 | 0 | 0 - | 1 + | 1 |
| Vigoro V9713 | 70 | 60.3 - | 33 + | 30 + | 0.5 | 0 | 2 + | 0 | 1 |
| VA02W-555 | 70 | 60.0 - | 29 | 25 - | 0.3 | 0 | 2 + | 0 | 2 |
| SS 8404 | 70 | 61.8 + | 30 + | 26 - | 0.2 | 0 | 2 + | 0 | 1 |
| Panola | 70 | 59.9 - | 28 - | 29 | 0.3 | 0 | 1 | 0 | 1 |
| Tribute-USG3592 Blend | 70 | 62.2 + | 30 + | 30 + | 0.4 | 0 | 0 - | 0 | 3 |
| VA05W-53 | 69 | 61.8 + | 25 - | 26 - | 0.3 | 0 | 3 + | 1 + | 6 |
| SS 560 | 69 | 59.9 - | 32 + | 28 | 0.2 | 0 | 2 + | 1 + | 2 |
| SS 520 | 69 | 60.3 - | 25 - | 29 | 0.3 | 0 | 1 | 1 + | 4 |
| VA03W-434 | 69 | 59.3 - | 32 + | 24 - | 0.2 | 0 | 1 | 1 + | 0 |
| Neuse-USG3592 Blend | 69 | 61.5 + | 32 + | 31 + | 0.3 | 0 | 0 - | 1 + | 0 |
| VA02W-398 | 68 | 59.1 - | 28 - | 28 | 0.4 | 0 | 0 - | 2 + | 5 |
| VA00W-38 | 68 | 60.3 - | 27 - | 27 | 0.4 | 0 | 3 + | 1 + | 1 |
| Featherstone 176 | 68 | 61.2 | 27 - | 28 | 0.3 | 0 | 3 + | 1 + | 3 |
| VA05W-255 | 68 | 60.2 - | 25 - | 27 | 0.4 | 1 + | 1 | 1 + | 2 |
| Renwood 3260 | 68 | 61.7 + | 27 - | 29 | 0.4 | 0 | 1 | 1 + | 2 |
| USG 3706 | 68 | 61.4 + | 28 - | 26 - | 0.3 | 0 | 1 | 1 + | 1 |
| Sisson | 68 | 60.4 - | 31 + | 28 | 0.5 | 0 | 6 + | 0 | 4 |
| Chesapeake | 68 | 61.6 + | 31 + | 28 | 0.3 | 0 | 2 + | 0 | 0 |
| VA03W-412 | 68 | 61.9 + | 31 + | 29 | 0.2 | 0 | 2 + | 0 | 2 |
| USG 3342 | 68 | 60.5 | 30 + | 27 | 0.2 | 0 | 1 | 0 | 0 |
| Neuse | 68 | 61.9 + | 33 + | 29 | 0.2 | 0 | 0 - | 0 | 1 |
| Coker 9553 | 67 | 61.9 + | 27 - | 28 | 0.3 | 1 + | 1 | 1 + | 3 |
| VA05W-363 | 67 | 59.5 - | 25 - | 27 | 0.5 | 0 | 0 - | 1 + | 2 |
| Jamestown | 66 | 62.2 + | 25 - | 26 - | 0.2 | 0 | 2 + | 1 + | 5 |
| Coker 9436 | 66 | 58.5 - | 33 + | 27 | 0.5 | 0 | 1 | 1 + | 0 |

Table 30. Summary of performance of entries planted no-till in the Virginia Tech Wheat Test (Warsaw and Holland, Va.), 2007 harvest. (cont.)

| Line | Yield (Bu/a) (2) | Test Weight (Lb/bu) (2) | Date Headed (Mar31+) (1) | Height (In) (1) | Lodging (0.2-10) (1) | Powdery Mildew (0-9) (1) | Leaf Rust (0-9) (2) | Barley Yel- low Dwarf Virus (0-9) (1) | Spring Freeze (0-9) (1) |
|----------------------|------------------------|-------------------------------|-----------------------------------|-----------------------|----------------------------|-----------------------------------|---------------------------|---|----------------------------------|
| Pioneer 26R31 | 66 | 59.9 - | 27 - | 23 - | 0.2 | 0 | 1 | 1 + | 2 |
| VA05W-313 | 65 - | 60.5 | 25 - | 28 | 0.4 | 0 | 1 | 1 + | 2 |
| VA03W-135 | 65 - | 58.5 - | 32 + | 28 | 0.3 | 0 | 1 | 1 + | 3 |
| GA-951231-4E25 | 65 - | 61.4 + | 26 - | 27 | 0.2 | 0 | 1 | 1 + | 5 |
| Massey | 63 - | 60.9 | 28 - | 31 + | 0.7 | 0 | 5 + | 1 + | 2 |
| VA02W-713 | 63 - | 61.8 + | 26 - | 29 | 0.4 | 0 | 4 + | 0 | 4 |
| VA05W-65 | 63 - | 63.0 + | 26 - | 25 - | 0.3 | 0 | 2 + | 0 | 7 |
| VA04W-439 | 61 - | 61.3 | 27 - | 28 | 0.2 | 0 | 4 + | 1 + | 5 |
| DV03-9550 | 61 - | 61.9 + | 26 - | 27 | 0.3 | 0 | 3 + | 1 + | 7 |
| Pioneer 26R87 | 56 - | 63.5 + | 27 - | 27 | 0.2 | 0 | 1 | 1 + | 3 |
| Average | 71 | 60.9 | 29 | 28 | 0.4 | 0 | 1 | 0 | 2 |
| LSD (0.05) | 6 | 0.5 | 1 | 2 | 0.4 | 0.5 | 1 | 1 | — |
| C.V. | 8 | 0.8 | 3 | 6 | — | — | — | — | — |

Released cultivars are shown in bold print.

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

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

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.

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

Section 3: Milling and Baking Quality

The milling and baking qualities of wheat lines grown in the 2005-2006 Virginia State Wheat Test were assessed by the USDA-ARS Soft Wheat Quality Laboratory (SWQL) in Wooster, Ohio (Table 31). Quality evaluations were conducted using 2,000-gram grain samples from wheat lines grown at the Warsaw 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 qualities. 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.

The milling and baking qualities of wheat lines were compared to those of the check cultivar McCormick. On the basis of eight independent Allis-Chalmers milling-quality evaluations conducted by the SWQL, McCormick has a historical milling quality score of 68.1 and ranks 367th out of 757 wheat cultivars evaluated to date. For the 2006 crop, McCormick received a milling quality score of 64.7. Most of the wheat cultivars evaluated in 2006 also had slightly lower milling quality scores than their historical averages. Pastry-baking quality of McCormick on the basis of cookie-spread diameter (17.0 cm) was similar to the historical average value of 17.2 cm. Gluten strength of wheat cultivars evaluated in 2006 was elevated

on the basis higher than average lactic acid scores, which has a negative impact on cookie diameter. Lines receiving milling quality scores of "A" or "B" and baking quality scores above "E" likely have better overall pastry quality than McCormick. Most of the wheat cultivars and lines evaluated had acceptable milling and baking qualities. Wheat lines receiving milling quality scores below "C" or baking quality scores below "E" may have less desirable milling quality and/or baking quality properties than McCormick.

Milling quality scores of released cultivars ranged from 80.8 for Pioneer 26R31 to 49.4 for Chesapeake with nine cultivars and four experimental lines having higher scores than McCormick. Baking quality scores for released cultivars ranged from a high of 66.9 for Featherstone 176 to a low of 32.5 for SS 520 with 15 cultivars and 13 experimental lines having higher scores than McCormick. Flour yields among the cultivars ranged from a high of 78.9 percent for Dominion to a low of 75.1 percent for Chesapeake. Cookie diameters of released cultivars ranged from a high of 17.86 cm for SS 8404 to a low of 16.53 cm for SS 520.

Among the released cultivars, flour protein concentration varied from 8.46 percent for SS 550 to 10.19 percent for USG 3706. Protein quality, specifically gluten strength, based on Lactic Acid Solvent Retention Capacity varied from a high of 125 percent for Renwood 3260 to a low of 88.1 percent for SS-MPV 57. Lines having lower lactic acid scores would produce a dough having weak gluten strength and more suitable for pastry products such as cookies, 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 evaluation of the 2006 harvest.

| Line | Historical | | | Milling Quality Score | Baking Quality Score | Straight Grade Flour Yield | Break Flour Yield | Softness Endo-sperm Separation % | Flour Protein % | Cookie Diameter cm. | Lactic Acid Adj. 9% Prot. |
|-------------------------------|-----------------------|---------------------|-----------|-----------------------|----------------------|----------------------------|-------------------|----------------------------------|-----------------|---------------------|---------------------------|
| | Milling Quality Score | Cookie Diameter cm. | No. Tests | | | | | | | | |
| Standard = McCormick | 68.1 | 17.2 | 8 | 64.7 C | 48.2 E | 76.8 | 30.4 | 10.1 | 9.30 | 17.00 | 107.9 |
| RELEASED VARIETIES | | | | | | | | | | | |
| Pioneer 26R31 | 81.9 | 16.9 | 2 | 80.8 A | 46.2 E | 78.8 | 25.5 * | 8.4 | 8.90 | 16.94 | 98.3 |
| Dominion | 79.3 | 17.1 | 6 | 80.6 A | 51.5 D | 78.9 | 26.4 * | 8.0 | 9.22 | 17.10 | 108.8 |
| SS 8404 | 78.1 | 17.6 | 1 | 79.5 B | 76.9 B | 78.2 | 29.5 | 8.2 | 9.15 | 17.86 | 91.8 |
| SS 520 | 80.1 | 17.3 | 7 | 77.7 B | 32.5 F | 78.0 | 28.4 | 8.3 | 9.02 | 16.53 * | 112.6 |
| SS-MVP 57 | 78.5 | 17.4 | 3 | 75.2 B | 56.5 D | 77.6 | 28.7 | 8.4 | 8.84 | 17.25 | 88.1 |
| Renwood 3706 | 77.9 | 17.2 | 5 | 74.9 B | 58.5 D | 78.1 | 24.9 * | 8.7 | 10.19 * | 17.31 | 118.2 |
| Tribute-Neuse Blend | | | | 72.4 B | 51.9 D | 77.7 | 27.3 * | 9.2 | 9.37 | 17.11 | 107.9 |
| Pioneer 26R15 | 74.8 | 17.4 | 4 | 72.3 B | 62.9 C | 77.2 | 31.5 | 8.7 | 9.28 | 17.44 | 121.9 |
| Neuse-USG 3592 Blend | | | | 71.1 B | 54.2 D | 77.1 | 31.6 | 9.0 | 9.24 | 17.18 | 108.3 |
| Renwood 3260 | 76.4 | 17.0 | 3 | 70.5 B | 34.2 F | 76.9 | 28.1 | 8.9 | 10.16 * | 16.58 * | 125.0 |
| Featherstone 176 | 68.3 | 17.3 | 6 | 67.0 C | 66.9 C | 76.9 | 26.4 * | 9.5 | 9.07 | 17.56 | 116.4 |
| Tribute | 65.8 | 16.9 | 10 | 66.5 C | 49.9 E | 77.0 | 26.8 * | 10.0 | 8.94 | 17.05 | 110.7 |
| Sisson | 70.4 | 17.3 | 9 | 65.7 C | 56.5 D | 76.8 | 29.7 | 10.2 | 8.56 | 17.25 | 92.7 |
| SS 560 | 67.9 | 17.1 | 6 | 65.5 C | 43.2 E | 77.0 | 30.0 | 9.8 | 8.96 | 16.85 | 108.2 |
| Tribute-USG 3592 Blend | | | | 64.8 C | 49.5 E | 76.6 | 30.0 | 10.3 | 8.67 | 17.04 | 116.4 |
| McCormick | 68.1 | 17.2 | 8 | 64.7 C | 48.2 E | 76.8 | 30.4 | 10.1 | 9.30 | 17.00 | 110.0 |
| USG 3592 | 69.7 | 17.6 | 2 | 63.5 C | 62.5 C | 76.2 | 33.8 | 10.0 | 8.63 | 17.43 | 116.9 |
| Pioneer 26R24 | 65.4 | 17.3 | 9 | 63.4 C | 58.2 D | 76.4 | 32.8 | 10.0 | 8.69 | 17.30 | 118.6 |
| V 9412 | 61.5 | 17.2 | 2 | 62.0 C | 48.2 E | 76.9 | 28.0 | 10.8 | 9.11 | 17.00 | 112.6 |
| SS 8302 | 62.0 | 17.5 | 1 | 61.2 C | 64.9 C | 76.1 | 32.9 | 10.0 | 9.19 | 17.50 | 115.0 |
| Jamestown | | | | 59.7 D | 41.5 E | 76.2 | 29.1 | 10.6 | 9.26 | 16.80 | 109.3 |
| SS 550 | 62.6 | 17.3 | 6 | 56.4 D | 52.5 D | 75.8 * | 32.8 | 11.0 | 8.46 | 17.13 | 95.0 |
| USG 3209 | 55.3 | 16.9 | 7 | 55.4 D | 39.2 F | 76.3 | 28.6 | 10.8 | 8.69 | 16.73 | 105.4 |
| V 9510 | 54.5 | 16.4 | 1 | 54.5 D | 55.2 D | 75.5 * | 30.4 | 11.1 | 8.61 | 17.21 | 109.0 |
| Chesapeake | | | | 49.4 E | 51.2 D | 75.1 Q | 32.1 | 11.5 | 8.95 | 17.09 | 100.4 |
| EXPERIMENTAL LINES | | | | | | | | | | | |
| Standard = McCormick | 68.1 | 17.2 | 8 | 64.7 C | 48.2 E | 76.8 | 30.4 | 10.1 | 9.30 | 17.00 | 107.9 |
| VA02W-398 | | | | 82.5 A | 68.2 C | 78.3 | 29.5 | 7.9 | 8.92 | 17.60 | 117.4 |
| VA03W-235 | | | | 76.7 B | 70.2 B | 78.1 | 31.5 | 8.3 | 9.02 | 17.66 | 90.7 |
| VA03W-409 | | | | 75.4 B | 76.9 B | 77.9 | 32.8 | 8.9 | 8.45 | 17.86 | 86.1 |
| VA01W-205 | | | | 73.0 B | 52.5 D | 77.3 | 32.6 | 9.2 | 8.73 | 17.13 | 114.7 |
| VA04W-259 | | | | 69.4 C | 54.9 D | 77.2 | 29.6 | 9.4 | 8.98 | 17.20 | 109.5 |
| VA03W-310 | | | | 68.9 C | 56.2 D | 76.7 | 32.3 | 9.7 | 8.71 | 17.24 | 102.0 |
| VA03W-412 | | | | 68.8 C | 60.9 C | 76.9 | 30.0 | 9.7 | 8.61 | 17.38 | 98.9 |

Table 31. Milling and baking quality of entries in the Virginia Tech Wheat Test based on evaluation of the 2006 harvest. (cont.)

| Line | Historical | | | Milling Quality Score | Baking Quality Score | Straight Grade Flour Yield | Break Flour Yield | Softness | | Cookie Diameter cm. | Lactic Acid Adj. 9% Prot. |
|-----------|-----------------------------|----------------------|--------------|-----------------------------|----------------------------|----------------------------------|-------------------------|-----------------------------------|-----------------------|---------------------------|---------------------------------|
| | Milling Quality Score | Diam- eter cm. | No. Tests | | | | | Endo- sperm Separation % | Flour Protein % | | |
| VA04W-227 | | | | 65.5 C | 42.5 E | 76.9 | 31.9 | 9.8 | 8.52 | 16.83 | 104.6 |
| VA04W-90 | | | | 63.8 C | 46.5 E | 76.0 * | 33.2 | 9.8 | 9.16 | 16.95 | 119.8 |
| VA03W-434 | | | | 61.9 C | 62.9 C | 76.2 | 32.7 | 10.5 | 8.70 | 17.44 | 99.8 |
| VA03W-203 | | | | 60.6 C | 51.9 D | 76.1 | 28.6 | 10.6 | 8.73 | 17.11 | 122.4 |
| VA04W-306 | | | | 59.9 D | 55.2 D | 76.5 | 32.0 | 10.7 | 8.25 | 17.21 | 116.2 |
| VA02W-713 | | | | 56.6 D | 69.9 C | 75.8 * | 31.1 | 11.1 | 8.87 | 17.65 | 97.2 |
| VA02W-555 | | | | 55.7 D | 46.5 E | 76.0 * | 29.4 | 10.6 | 9.07 | 16.95 | 108.7 |
| VA03W-110 | | | | 54.2 D | 34.9 F | 75.9 * | 36.0 | 11.1 | 8.82 | 16.60 * | 119.2 |
| VA04W-439 | | | | 52.2 D | 55.2 D | 75.3 * | 33.0 | 11.5 | 8.77 | 17.21 | 90.9 |
| VA00W-38 | | | | 47.7 E | 54.9 D | 74.8 Q | 31.5 | 11.6 | 8.29 | 17.20 | 124.2 |

Section 4: Wheat Scab Research

One of the primary research objectives of the Virginia Tech wheat breeding program is to identify and develop cultivars possessing resistance to Fusarium head blight (FHB) or scab. Each year all wheat entries in Virginia's Official State Variety Trials are evaluated for FHB resistance in an inoculated, irrigated nursery at the Blacksburg test site. Data from this test for the current crop year and two- and three-year averages for FHB incidence, FHB severity, and FHB index (incidence x severity/100) are included in this bulletin (Tables 32-34) to aid producers in the selection of cultivars on the basis of FHB resistance. Cultivars possessing complete resistance or immunity to FHB have not been identified and resistance levels in currently available cultivars vary from moderately resistant to highly susceptible.

A major goal of the breeding program is to identify and incorporate unique and complementary types of FHB resistance into cultivars to enhance the overall level of resistance. Genes controlling FHB resistance have been identified on more than six chromosomes in wheat and some of these genes are complementary in nature and effect different disease resistance components such as FHB incidence, severity, and DON toxin content. Incorporating such mul-

multiple resistance genes having additive effects on FHB resistance into cultivars will enhance the overall level of resistance. Because the individual resistance genes are located on different wheat chromosomes and each gene confers only partial resistance to FHB, identifying wheat lines having multiple resistance genes is difficult using traditional breeding techniques. To overcome this limitation, our program is currently identifying and using DNA markers located close to these resistance genes on the same chromosome as "tags" for selecting wheat lines possessing different combinations of these complementary resistance genes.

Incidence and severity of FHB in the 2007 state wheat nursery at Blacksburg were considerably lower than in the previous two years in spite of the application of mist irrigation following inoculation. This likely was due to the prolonged droughty conditions that prevailed throughout most of the wheat heading to early grain fill stages. FHB index values of state wheat entries varied from 1 to 20 in the 2007 nursery (Table 32) versus index values ranging from 3 to 59 in 2006 and from 7 to 27 in 2005. Wheat cultivars having consistently lower FHB Index values (≤ 16) and thus higher levels of FHB resistance over all three years include: Massey, Renwood 3260, Jamestown, Pioneer 26R15, USG 3342, Coker 9553, Tribute, SS 8404, SS 8302, Chesapeake, V9510, and SS 8309.

Table 32. Summary of reaction of entries in the 2006-07 Virginia Tech State Wheat Test to Fusarium head blight (scab) and glume blotch resistance, 2007 harvest.

| Line | Incidence (%) | Severity (%) | INDEX | Heading Date (Mar31+) | Glume Blotch (0-9) |
|----------------------------|---------------|--------------|-------|-----------------------|--------------------|
| Pioneer 26R15 | 15 | 6 | 1 | 43 + | 6 |
| VA05W-668 | 15 | 6 | 1 | 42 + | 6 |
| WB03-016 G | 20 | 6 | 1 | 43 + | 4 |
| Coker 9436 | 10 | 6 | 1 | 43 + | 5 |
| Renwood 3260 | 10 | 12 | 1 | 41 | 5 |
| VA05W-108 | 15 | 10 | 1 | 42 + | 5 |
| USG 3665 | 15 | 10 | 1 | 42 + | 3 |
| Magnolia | 20 | 4 | 1 | 42 + | 7 |
| SS 8302 | 25 | 8 | 2 | 43 + | 8 |
| SS 8309 | 20 | 10 | 2 | 42 + | 6 |
| VA03W-434 | 25 | 8 | 2 | 42 + | 2 |
| Tribute-Neuse Blend | 30 | 7 | 2 | 42 + | 2 |
| VA04W-439 | 20 | 5 | 2 | 41 | 5 |
| Jamestown | 20 | 9 | 2 | 40 - | 4 |
| VA05W-125 | 30 | 8 | 2 | 41 | 8 |
| VA05W-517 | 30 | 7 | 2 | 41 | 3 |
| VA04W-592 | 20 | 13 | 3 | 42 + | 6 |
| VA03W-110 | 25 | 10 | 3 | 42 + | 5 |
| VA01W-205 | 30 | 8 | 3 | 41 | 7 |
| VA05W-53 | 40 | 7 | 3 | 43 + | 2 |
| SS 560 | 20 | 15 | 3 | 42 + | 4 |
| Massey | 25 | 13 | 3 | 42 + | 2 |
| VA03W-235 | 25 | 11 | 3 | 42 + | 2 |
| Vigoro V9713 | 30 | 10 | 3 | 42 + | 2 |
| AGS 2050 | 15 | 10 | 3 | 41 | 6 |
| USG 3342 | 35 | 9 | 3 | 41 | 5 |
| Pioneer 26R31 | 15 | 18 | 3 | 42 + | 6 |
| VA04W-571 | 30 | 11 | 3 | 42 + | 5 |
| USG 3209 | 35 | 8 | 3 | 42 + | 7 |
| VA02W-555 | 40 | 8 | 3 | 41 | 6 |
| USG 3706 | 30 | 11 | 4 | 41 | 9 |
| VA04W-515 | 40 | 10 | 4 | 42 + | 7 |
| EXP 701 | 25 | 16 | 4 | 42 + | 7 |
| VA04W-79 | 15 | 13 | 4 | 42 + | 7 |
| VA03W-135 | 20 | 17 | 4 | 41 | 4 |
| Chesapeake | 25 | 17 | 4 | 41 | 6 |
| VA02W-713 | 30 | 14 | 4 | 41 | 4 |
| VA03W-412 | 40 | 10 | 4 | 41 | 5 |
| NC00-15332 | 30 | 15 | 4 | 41 | 6 |
| Featherstone 176 | 25 | 19 | 4 | 40 - | 7 |
| GA-951231-4E25 | 35 | 12 | 4 | 39 - | 7 |
| M01-4377 | 25 | 18 | 5 | 42 + | 4 |
| Tribute | 45 | 11 | 5 | 42 + | 2 |
| VA05W-436 | 50 | 9 | 5 | 42 + | 5 |

Table 32. Summary of reaction of entries in the 2006-07 Virginia Tech State Wheat Test to Fusarium head blight (scab) and glume blotch resistance, 2007 harvest. (cont.)

| Line | Incidence (%) | Severity (%) | INDEX | Heading Date (Mar31+) | Glume Blotch (0-9) |
|------------------------------|---------------|--------------|-------|-----------------------|--------------------|
| Panola | 25 | 19 | 5 | 40 - | 8 |
| VA05W-65 | 30 | 14 | 5 | 43 + | 5 |
| Vigoro V9510 | 25 | 23 | 5 | 42 + | 6 |
| VA00W-38 | 40 | 12 | 5 | 42 + | 3 |
| Dominion | 40 | 13 | 5 | 41 | 7 |
| VA05W-313 | 45 | 11 | 5 | 41 | 4 |
| VA05W-363 | 30 | 12 | 5 | 40 - | 4 |
| VA04W-90 | 30 | 19 | 5 | 42 + | 4 |
| Neuse | 30 | 19 | 6 | 43 + | 3 |
| McCormick | 40 | 13 | 6 | 41 | 5 |
| VA05W-251 | 40 | 16 | 6 | 42 + | 4 |
| SS 8404 | 25 | 26 | 6 | 42 + | 4 |
| Red Ruby | 30 | 18 | 6 | 42 + | 2 |
| DV03-9550 | 40 | 14 | 6 | 41 | 5 |
| SS 520 | 35 | 18 | 6 | 40 - | 7 |
| GA-951231-4E26 | 20 | 25 | 6 | 39 - | 6 |
| VA04W-259 | 45 | 13 | 6 | 43 + | 6 |
| VA05W-257 | 40 | 16 | 6 | 42 + | 5 |
| VA03W-409 | 40 | 16 | 6 | 42 + | 5 |
| VA05W-250 | 50 | 13 | 6 | 42 + | 2 |
| Coker 9553 | 25 | 19 | 7 | 40 - | 6 |
| VA05W-317 | 55 | 12 | 7 | 42 + | 6 |
| SS-MPV 57 | 40 | 18 | 7 | 43 + | 2 |
| VA04W-306 | 35 | 14 | 7 | 42 + | 3 |
| EXP 703 | 40 | 20 | 8 | 43 + | 1 |
| VA05W-151 | 45 | 16 | 8 | 42 + | 4 |
| VA05W-168 | 50 | 17 | 9 | 41 | 2 |
| Pioneer 26R87 | 35 | 23 | 9 | 41 | 5 |
| VA05W-258 | 30 | 30 | 9 | 42 + | 2 |
| Branson | 40 | 22 | 9 | 41 | 3 |
| VA04W-227 | 45 | 18 | 10 | 42 + | 2 |
| VA03W-203 | 45 | 23 | 10 | 40 - | 9 |
| VA05W-448 | 45 | 21 | 10 | 41 | 8 |
| VA05W-255 | 50 | 20 | 11 | 40 - | 6 |
| Coker 9184 | 50 | 22 | 11 | 42 + | 3 |
| VA03W-310 | 55 | 21 | 11 | 41 | 7 |
| VA05W-414 | 50 | 20 | 11 | 42 + | 6 |
| Pioneer 26R12 | 40 | 19 | 12 | 42 + | 4 |
| Tribute-USG3592 Blend | 45 | 23 | 12 | 41 | 7 |
| Sisson | 45 | 27 | 13 | 42 + | 4 |
| VA05W-78 | 55 | 26 | 14 | 41 | 2 |
| VA04W-291 | 50 | 29 | 15 | 41 | 4 |
| Pioneer 26R24 | 40 | 51 | 15 | 41 | 5 |

Table 32. Summary of reaction of entries in the 2006-07 Virginia Tech State Wheat Test to Fusarium head blight (scab) and glume blotch resistance, 2007 harvest. (cont.)

| Line | Incidence (%) | Severity (%) | INDEX | Heading Date (Mar31+) | Glume Blotch (0-9) |
|----------------------------|---------------|--------------|-------|-----------------------|--------------------|
| GA-96693-4E16 | 70 | 22 | 16 | 40 - | 7 |
| Neuse-USG3592 Blend | 50 | 32 | 17 | 42 + | 6 |
| USG 3592 | 65 | 32 | 19 | 42 + | 5 |
| VA04W-230 | 45 | 38 | 19 | 41 | 7 |
| VA02W-398 | 40 | 53 | 20 | 42 + | 3 |
| Average | 34 | 16 | 6 | 41 | 5 |
| LSD (0.05) | 32 | 21 | 11 | 1 | — |
| CV | 47 | 66 | 87 | 1 | — |
| R ² | 0.550 | 0.572 | 0.574 | 0.824 | — |

Released cultivars are shown in bold print. Varieties are ordered by ascending index averages.

A plus or minus sign indicates a performance significantly above or below the average.

Entries were planted in 2-row plots, 4 ft in length at Blacksburg and were inoculated at 50% and 100% heading stages with *Fusarium graminearum* spore suspension (50,000 spores/ml).

Scab Incidence (%): Percentage of infected spikes among 10 randomly selected spikes.

Scab Severity (%): Percentage of infected spikelets divided by total number of spikelets among 10 infected spikes.

Scab Index = Incidence X Severity/100; it is an overall indicator of scab resistance/susceptibility level.

Table 33. Two-year average summary of reaction of entries in the Virginia Tech State Wheat Tests to Fusarium head blight (scab), 2006 and 2007 harvests.

| LINE | Incidence (%) | Severity (%) | INDEX | Heading Date Mar 31+ | LINE | Incidence (%) | Severity (%) | INDEX | Heading Date Mar 31+ |
|----------------------------|---------------|--------------|-------|----------------------|------------------------------|---------------|--------------|-------|----------------------|
| Renwood 3260 | 20 | 11 | 2 | 37 | SS-MPV 57 | 55 | 21 | 12 | 40 |
| Jamestown | 28 | 9 | 3 | 36 | USG 3209 | 53 | 20 | 13 | 37 |
| Massey | 35 | 12 | 4 | 38 | Coker 9184 | 58 | 22 | 13 | 39 |
| VA04W-439 | 33 | 10 | 5 | 38 | M01-4377 | 50 | 23 | 13 | 39 |
| Tribute-Neuse Blend | 40 | 12 | 6 | 39 | VA03W-310 | 60 | 23 | 14 | 37 |
| USG 3342 | 40 | 16 | 6 | 37 | VA02W-555 | 60 | 20 | 15 | 37 |
| Pioneer 26R15 | 35 | 13 | 6 | 38 | Featherstone 176 | 48 | 28 | 15 | 37 |
| VA02W-713 | 40 | 15 | 6 | 37 | Sisson | 58 | 27 | 16 | 37 |
| Tribute | 45 | 14 | 6 | 38 | USG 3706 | 50 | 25 | 16 | 39 |
| VA04W-90 | 43 | 16 | 6 | 38 | SS 560 | 43 | 30 | 17 | 39 |
| Coker 9553 | 38 | 16 | 7 | 37 | Panola | 45 | 30 | 17 | 37 |
| NC00-15332 | 50 | 14 | 7 | 38 | VA00W-38 | 60 | 24 | 17 | 39 |
| Chesapeake | 48 | 15 | 7 | 38 | Pioneer 26R31 | 48 | 28 | 17 | 38 |
| SS 8302 | 43 | 16 | 8 | 39 | SS 520 | 60 | 26 | 18 | 36 |
| VA03W-412 | 50 | 15 | 8 | 37 | VA03W-203 | 65 | 29 | 20 | 36 |
| Red Ruby | 43 | 19 | 8 | 38 | VA02W-398 | 50 | 43 | 20 | 37 |
| Vigoro V9510 | 48 | 20 | 9 | 38 | Neuse-USG3592 Blend | 55 | 36 | 21 | 39 |
| SS 8309 | 43 | 17 | 9 | 38 | VA04W-306 | 58 | 31 | 23 | 38 |
| SS 8404 | 40 | 23 | 9 | 38 | Pioneer 26R12 | 60 | 32 | 25 | 38 |
| McCormick | 50 | 17 | 9 | 38 | Tribute-USG3592 Blend | 58 | 39 | 25 | 38 |
| VA01W-205 | 48 | 16 | 9 | 37 | VA04W-259 | 65 | 34 | 27 | 39 |
| USG 3665 | 38 | 19 | 9 | 38 | Pioneer 26R24 | 58 | 53 | 28 | 38 |
| Coker 9436 | 40 | 15 | 9 | 40 | VA03W-110 | 58 | 35 | 28 | 38 |
| VA03W-235 | 48 | 18 | 11 | 38 | VA04W-227 | 68 | 39 | 32 | 38 |
| Dominion | 55 | 18 | 11 | 38 | USG 3592 | 73 | 47 | 35 | 38 |
| VA03W-434 | 45 | 20 | 12 | 40 | Average | 49 | 23 | 13 | 38 |
| Pioneer 26R87 | 53 | 22 | 12 | 36 | | | | | |
| VA03W-409 | 55 | 21 | 12 | 38 | | | | | |

Released cultivars are shown in bold print. Varieties are ordered by ascending index averages.

A plus or minus sign indicates a performance significantly above or below the average.

Entries were planted in 2-row plots, 4 ft in length at Blacksburg and were inoculated at 50% and 100% heading stages with *Fusarium graminearum* spore suspension (50,000 spores/ml).

Scab Incidence (%): Percentage of infected spikes among 10 randomly selected spikes.

Scab Severity (%): Percentage of infected spikelets divided by total number of spikelets among 10 infected spikes.

Scab Index = Incidence X Severity/100; it is an overall indicator of scab resistance/susceptibility level.

Table 34. Three-year average summary of reaction of entries in the Virginia Tech State Wheat Tests to Fusarium head blight (scab), 2005 - 2007 harvests.

| LINE | Incidence (%) | Severity (%) | INDEX | Heading Date |
|-------------------------|---------------|--------------|-------|--------------|
| | | | | Mar 31+ |
| Massey | 45 | 12 | 6 | 38 |
| Renwood 3260 | 37 | 14 | 6 | 37 |
| Jamestown | 45 | 12 | 6 | 36 |
| Pioneer 26R15 | 42 | 13 | 6 | 38 |
| VA02W-713 | 50 | 15 | 8 | 37 |
| USG 3342 | 48 | 16 | 8 | 37 |
| Coker 9553 | 48 | 16 | 8 | 37 |
| Tribute | 55 | 15 | 9 | 38 |
| NC00-15332 | 57 | 15 | 9 | 38 |
| SS 8404 | 48 | 21 | 10 | 38 |
| VA01W-205 | 55 | 16 | 10 | 37 |
| SS 8302 | 55 | 16 | 10 | 39 |
| Chesapeake | 57 | 17 | 10 | 38 |
| Coker 9436 | 52 | 16 | 10 | 40 |
| Vigoro V9510 | 57 | 20 | 11 | 38 |
| SS 8309 | 53 | 18 | 11 | 38 |
| USG 3209 | 57 | 18 | 11 | 37 |
| McCormick | 60 | 18 | 12 | 38 |
| VA03W-235 | 55 | 19 | 12 | 38 |
| VA03W-412 | 65 | 17 | 12 | 37 |
| VA03W-409 | 63 | 21 | 13 | 38 |
| SS-MPV 57 | 67 | 21 | 15 | 40 |
| VA03W-434 | 58 | 22 | 15 | 40 |
| Dominion | 65 | 21 | 15 | 38 |
| Featherstone 176 | 58 | 25 | 15 | 37 |
| Coker 9184 | 68 | 23 | 15 | 39 |
| Sisson | 67 | 24 | 16 | 37 |
| VA02W-555 | 70 | 21 | 17 | 37 |
| SS 560 | 55 | 28 | 17 | 39 |
| USG 3706 | 63 | 25 | 18 | 39 |
| Pioneer 26R31 | 58 | 29 | 19 | 38 |
| SS 520 | 68 | 26 | 19 | 36 |
| Pioneer 26R12 | 67 | 27 | 21 | 38 |
| VA02W-398 | 62 | 39 | 22 | 37 |
| Pioneer 26R24 | 60 | 42 | 23 | 38 |
| Average | 57 | 21 | 13 | 38 |

Released cultivars are shown in bold print. Varieties are ordered by ascending index averages.

A plus or minus sign indicates a performance significantly above or below the average.

Entries were planted in 2-row plots, 4 ft in length at Blacksburg and were inoculated at 50% and 100% heading stages with Fusarium graminearum spore suspension (50,000 spores/ml).

Scab Incidence (%): Percentage of infected spikes among 10 randomly selected spikes.

Scab Severity (%): Percentage of infected spikelets divided by total number of spikelets among 10 infected spikes.

Scab Index = Incidence X Severity/100; it is an overall indicator of scab resistance/susceptibility level.

REVISED 2007 www.ext.vt.edu **PUBLICATION 424-001**

Produced by Communications and Marketing, College of Agriculture and Life Sciences,
Virginia Polytechnic Institute and State University

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VT/0807/W/424001