



Small Grains in 2022

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Recommended Small Grain Varieties

The following are the small grain variety recommendations for Virginia in 2022. The recommendations are based on the agronomic performance in wheat and barley variety tests conducted by the Research and Extension Divisions of Virginia Tech in the various agricultural regions of the state. Milling quality and SRW Baking Quality are reported from the 2021 season.

Recommended Wheat Varieties Arranged in Order of Maturity

Agronomic Characteristics

Cultivar	Grain Yield	Test Weight	Milling Quality	SRW Baking Quality
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Early to Mid-Season Heading Varieties (117-119d, Julian)

SY Richie	3	3	Fair	Fair
Dyna-Gro Laverne	3	3	Fair	Fair
VA17W-75*	4	4	Fair	Fair
USG 3118	3	4	Fair	Fair
SY Viper	3	4	Fair	Fair
SY 007	3	3	Fair	Poor
Liberty 5658	3	4	Fair	Fair

Mid to Late Season Heading Varieties (120-123 d, Julian)

MAS # 316	3	2	Good	Poor
Dyna-Gro 9172	4	3	Good	Excellent
AgriMAXX 503	3	3	Fair	Good
Progeny #Bullet	3	3	Good	Fair
MAS #143	4	3	Good	Excellent
Revere 2169	4	3	Good	Good
Dyna-Gro 9151	3	4	Poor	Fair
MBX 127	3	2	Good	Excellent
AgriMAXX 505	3	4	Fair	Fair
MAS #133	3	2	Excellent	Excellent
SH 7222 (13VTK429-3)	4	4	Good	Fair
Progeny #Buster	3	4	Fair	Fair
Featherstone 125	3	4	Good	Fair
SY 547	3	3	n/a	n/a
MAS # 86	4	2	Good	Good
Hilliard	3	3	Fair	Fair

- 4 - Significantly higher than average
- 3 - Average or higher than average
- 2 - Average or lower than average
- 1 - Significantly lower than average

Disease Resistance

Cultivar	FHB† Resistance	Powdery Mildew Resistance	Leaf Rust Resistance	Barley Yellow Dwarf Virus Tolerance
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Early to Mid-Season Heading Varieties (117-119d, Julian)

Dyna-Gro Laverne	Good	Excellent	Good	Excellent
Liberty 5658	Fair	Excellent	Excellent	Excellent
SY Viper	Fair	Good	Fair	Fair
SY 007	Fair	Good	Fair	Good
USG 3118	Poor	Good	Excellent	Excellent
VA17W-75*	Fair	Excellent	Excellent	Good
SY Richie	Good	Excellent	Excellent	Excellent

Mid to Late Season Heading Varieties (120+ d, Julian)

MAS # 316	Fair	Excellent	Poor	Poor
Dyna-Gro 9172	Fair	Good	Fair	Good
AgriMAXX 503	Fair	Good	Fair	Fair
Progeny #Bullet	Poor	Good	Good	Good
MAS #143	Fair	Excellent	Fair	Good
Revere 2169	Poor	Good	Fair	Good
Dyna-Gro 9151	Poor	Excellent	Poor	Poor
MBX 127	Fair	Good	Good	Fair
AgriMAXX 505	Fair	Good	Poor	Poor
MAS #133	Fair	Good	Poor	Fair
SH 7222 (13VTK429-3)	Fair	Excellent	Excellent	Excellent
Progeny #Buster	Fair	Excellent	Fair	Good
Featherstone 125	Poor	Good	Excellent	Excellent
SY 547	Poor	Good	Good	Good
MAS # 86	Fair	Good	Poor	Fair
Hilliard	Fair	Excellent	Good	Good

†FHB -Fusarium Head Blight

*Line to be renamed

Recommended Barley Varieties

Adapted Regions	Hulled Barley					Hulless Barley
	Nomini*	Thoroughbred	Atlantic	SB 255	Secretariat	Amaze 10
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	2	4	4	4	4	4
Test Weight	1	3	3	4	3	2
Lodging Tolerance	Very Good	Good	Good	Very Good	Good	Fair
Relative Height	3	3	2	3	2	3
Relative Heading	Avg	Late	Early	Late	Avg	Avg

- 4 - Significantly greater than average
- 3 - Average or greater than average
- 2 - Average or less than average
- 1 - Significantly less than average

*Nomini 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.

Barley and Wheat Entries

Commercial Barley Entries

Limagrain Cereal Seeds (LCS), 7099 Parkbrook Lane, Cordova, TN 38018 – Calypso, Clementine, Fay, and Violetta.

Oregon State University, 253A Crop Science Building 3050 SW Campus Way Corvallis, OR 97330 - DH141515, DH141969, DH142010, & DH150115.

Virginia Tech and Virginia Crop Improvement Association (VT and VCIA), 9142 Atlee Station Road, Mechanicsville, VA 23116 – Amaze 10, Atlantic, Avalon, Flavia, Marouetta, Hirondeella, Barsoy, Nomini, SB 255, Secretariat, Thoroughbred, Wysor and all lines prefixed by VA.

Commercial and Experimental Wheat Entries

AgriMAXX Wheat Company, 7167 Highbanks Road, Mascoutah, IL 62258 – AgriMAXX 502, AgriMAXX 503, AgriMAXX 505, AgriMAXX 513, AgriMAXX 514, AgriMAXX 516, AgriMAXX EXP 2105, AgriMAXX EXP 2110, AgriMAXX EXP 2222

AgriPro, 1521 N Convent Street Suite 200, Bourbonnais, IL 60914 – SY 007, SY 547, SY Viper, SY 100, SY 576, SY Richie, GP 381, GP 348, GP 463

CROPLAN, 1080 County Road F West, MS 5850, Shoreview, MN 55126-2910 – CP8045, CPX91221, CP8118

CORTEVA Agriscience Agriculture Division of DowDuPont (Pioneer), 974 Centre Rd, Chestnut Run Plaza Bldg. 735, Wilmington, DE 19805 - Pioneer 26R59, Pioneer 26R36, Pioneer 26R45

Eddie Mercer Agri-Services, Inc. (Mercer Brand), 6900 Linganore Road, Frederick, MD 21701 – MBX 127, MBX 176, MBX 223, MBX 2261.

Erwin-Keith, Inc. (Progeny Ag Products), 1529 Highway 193, Wynne, AR 72396 – #BERKELEY, #BULLET, #BUSTER, #CHAD, Progeny 19-12 (#BINGO), and Progeny 20-2.

Featherstone Farm Seed, Inc., 13941 Genito Road, Amelia, VA 23002 – Featherstone 125, Featherstone 3000.

University of Florida, 3105 McCarty Hall B, Gainesville, FL 32611 – FL15105-LDH039, FL16009LDH-16, FL16045LDH-25

University of Georgia, 1109 Experiment Street, Griffin, GA 30223 – GA 151313-LDH224-19E38, GA 111055-19LE12, GA 121012-19LE8, GA 11052-19LE15

GROWMARK (FS Wheat), 1701 Towanda Avenue, Bloomington, IL 61722 – FS 891, FS 875, FS 745, FS 743, FS 597.

KWS Cereals, 495 County Road 1300 N, Champaign, IL 61822 – KWS394, KWS398, KWS405, KWS414, KWS415.

Local Seed Company LLC, 802 Rozelle Street, Memphis, TN 38104 – Revere 2169, Revere 2148, Revere 2266, Revere 2277.

Meherrin Agricultural & Chemical Company (Southern Harvest), 4136 Severn Road, Severn, NC 27877 – SH 7200, SH 9520, SH 7222, SH 4222.

Mid-Atlantic Seeds, 204 St. Charles Way, #163E, York, PA 17402 – MAS #67, MAS #316 PS+, MAS #86, MAS #106, MAS #143, MAS #133, MAS #2, MAS #139, MAS #155, MAS #189, MAS # 133 PS+, MAS # 86 PS+, MAS # 134, MAS # 316.

NC State University (SunGrains), 840 Method Road Unit 3, Raleigh, NC 27695-7629 – NC11546-14, NC15V25-20, NC13211-9, NC13955-G125, NC18-16913.

Nutrien Ag Solutions (Dyna-Gro Seed), 15277 Richmond-Tappahannock Highway, St Stephens Church, VA 23148 – Shirley, Laverne, 9172, 9120, 9151, 9002, WX20738, WX21741, 9393, 9352, WX21793, WX22741

UniSouth Genetics, Inc. (USG), 3205 C Highway 46S, Dickson, TN 37055 – USG 3118, USG 3472, USG 3451, USG 3783, USG 3352, USG 3563, USG 3463, USG 3363, USG 3661.

Virginia Tech and Virginia Crop Improvement Association (VT and VCIA), 9142 Atlee Station Road, Mechanicsville, VA 23111 – Vision 45, HR 5210, Massey, Hardy 2518, Hilliard, Liberty 5658, and all lines prefixed by VA, VTK, DH and VDH.

Appreciation is expressed to the Virginia Small Grains Check-Off Board, AgriMAXX, CORTEVA Agriscience Agriculture Division of DowDuPont, Eddie Mercer Agri-Services, Inc., Erwin-Keith, Inc., Featherstone Farm Seed, Inc., KWS Cereals, Limagrain Cereal Seeds, Local Seed Company, Meherrin Ag & Chemical, Mid-Atlantic Seeds, Nutrien Ag Solutions, Syngenta Seeds, Inc., UniSouth Genetics, Inc., Winfield United, and the Virginia Crop Improvement Association for their financial support of the Small Grains Variety Testing Program at Virginia Tech.

Introduction

The following tables present results from barley and wheat varietal tests conducted in Virginia in 2020-2022. Small grain cultivar performance tests are conducted each year in Virginia by the Virginia Tech School of Plant and Environmental Sciences and the Virginia Agricultural Experiment Station. The tests provide information to assist Virginia Cooperative Extension Service 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 in parenthesis near the column heading. 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 experiment location.

The Season – 2022

Warm and dry conditions prevailed in the first two weeks of October, 2021, for most of the Commonwealth. By October 24, 44% of intended small grain acres were planted, equal to the 5-year average. By mid-November, 94 and 79% of barley and wheat acres, respectively were planted. Some areas of the state were reported to be abnormally dry, but 74% of wheat acres were considered to be in good or excellent condition. Dry conditions persisted into December in many areas resulting in later planted fields showing delayed emergence (Figure 1). January and February were generally cold with rain and snow amounts of three to six inches in most places, yet abnormally dry conditions persisted over much of the state. March brought rain and warmer temperatures, however due to the stressful winter, only 39% of the wheat crop was rated good or excellent. Temperatures and rainfall were near normal in April, with 86% of respondents reporting adequate soil moisture. On April 18, 43% of the wheat crop was good or excellent with 7% headed. Thirty-eight percent of wheat acres had headed by the end of April, compared to 63% the previous year and 51% for the five-year average. Sunny, dry conditions helped the crop mature, however, and by May 15, 89% of wheat had headed, compared with 78% in 2021. By the end of May, 11% of barley was harvested, reflecting the same rate as the previous five years. On June 5, 66% of the wheat crop was good or excellent, with 8% of acres harvested. Forty-five percent of wheat and 25% of barley was harvested by June 12.

The USDA-NASS expects an average of 64.0 bu/ac on 150,000 acres wheat harvested for grain resulting in total production of 10.9 million bu. The 2022 harvest was expected to be 35% larger than 2021. Barley harvest in the commonwealth is up 63% from last year with an expected 11,000 acres of grain to be harvested for a total of 858,000 bushels for 2022.

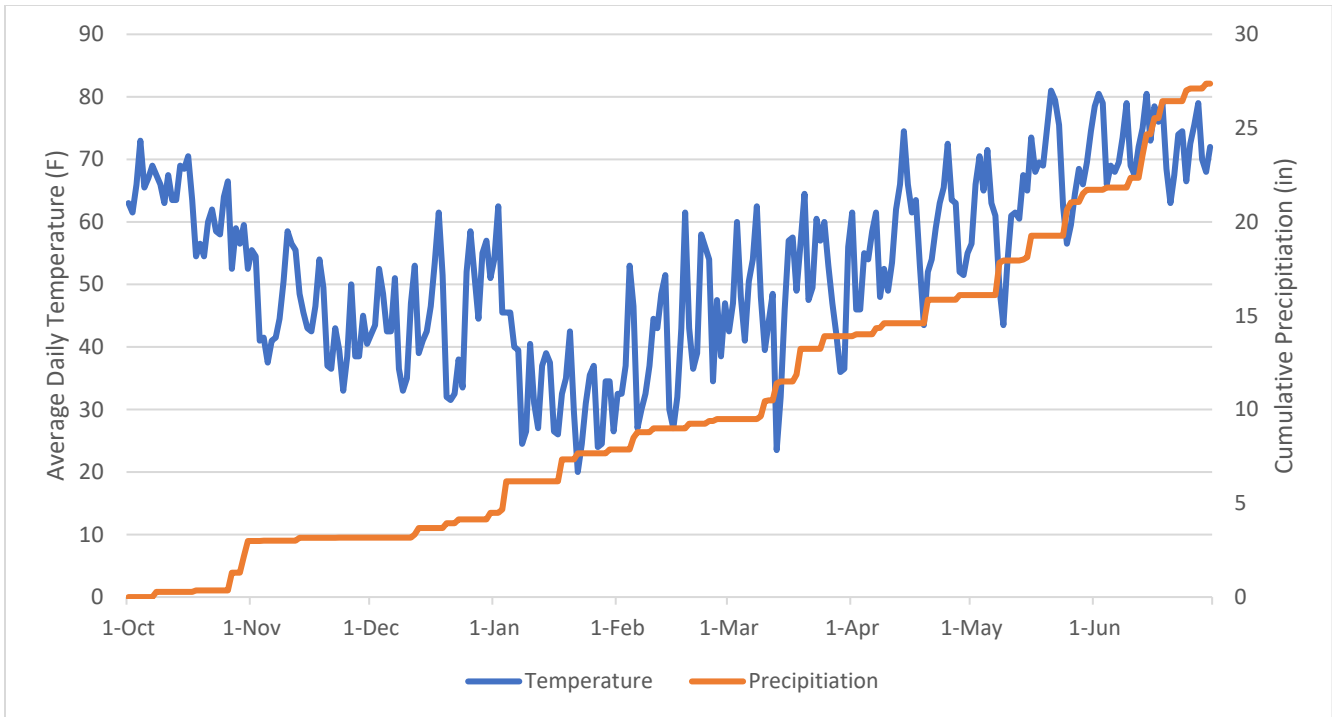


Figure 1. 2021-2022 daily average temperature and cumulative growing season precipitation for Virginia.

Section 1: Barley Varieties

For more than ten years, the Virginia Tech Barley Breeding program has been conducting barley research funded by commodity boards (Virginia Small Grains Board, Maryland Grain Producer Utilization Board, and Kentucky Small Grains Growers Association), American Malting Barley Association, Brewers Association and the US Wheat and Barley Scab Initiative. The goal of the breeding program is to develop high yielding, disease resistant barley cultivars adapted to the mid-Atlantic and southeastern US region and with qualities designed for specific end uses (feed, malt, food and others). Overall, our intent is to make winter barley a more competitive crop in the eastern US by implementing a program to develop barley cultivars with greater marketability in both domestic and foreign markets.

Recently there have been demands for the following barley end uses: low beta-glucan feed types for monogastric animals, high starch and protein types for ruminant feed, and production of high-quality winter barley for the malting, brewing and distilling industries. These have generated new interest in barley.

Hulled and Hulless Barley

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. The no-till site at Holland was planted at 48 seeds per square foot. All other locations were planted at 44 seeds per square foot.

Separate hulless barley tests that have traditionally been included in this report were not conducted during this past season. Instead, prominent hulless barley lines, ‘Amaze 10’ and ‘Greg’, were evaluated together with the hulled barley. Their performance data are summarized along with the hulled barley lines at each test site for the 2021-2022 harvest year. However, performance of the hulless cultivars was omitted from the over-location analysis due to the yield difference between hulled and hulless cultivars, so it was determined that comparing both barley types would be an inequitable comparison.

In the 2022 harvest year, the released lines Marouetta and Thoroughbred (both 6-rowed) produced yields (122 and 118 bushels per acre, respectively) significantly higher than the mean of the test. Yields for entries SB255, Secretariat, Atlantic, and Hirondella were all above the mean for all entries. Test weight was also greater than the mean for SB255 and Thoroughbred, while test weights for Marouetta and Hirondella were below average. The experimental lines VA20B-40 LA, VA20B-35 LA, VA19B-20 LA, VA20BFHB-18DH442 SA, VA18B-34, VA18B-23 LA, VA18B-43 LA, VA20B-37 LA, VA18B-39, VA17B-166 LA, VA18B-52 LA (Dec.) and VA18BFHB-80 LA all had grain yield significantly greater than the mean of all entries. VA20B-40 LA, VA20B-37 LA, VA17B-166 LA, VA18B-52 LA (Dec.), and VA18BFHB-80 LA also had significantly higher test weight, indicating continued improvement in this area. The average grain yield of the newly released awnless cultivar, VT Beahm (96 Bu/ac), was 9 bushels higher than the awnless cultivar Nomini (87 Bu/ac). Cultivar VT Beahm was released as a replacement for cultivar Nomini (released in 1991). Furthermore, the two-row recently released Virginia malt barley cultivar Avalon had an average grain yield (97 Bu/ac) similar to the two-row winter malt barley cultivars Flavia (98 Bu/ac) and Violetta (96 Bu/ac) but lower than cultivar Calypso (102 Bu/ac). Test weight for Avalon (50.4 Lb/ac) was similar to Violetta (49.3 Lb/ac) but significantly higher than those of cultivar Flavia (47.1 Lb/ac) and Calypso (46.9 Lb/ac).

Three-year average (2020, 2021, and 2022) grain yield was superior for cultivars Hirondella, Secretariat, and Thoroughbred. Test weight for Thoroughbred was significantly higher than the mean test weight for the 3-year analysis. Six other newly developed experimental lines (VA18B-39, VA18B-52 LA (Dec.), VA17B-166 LA, VA18B-34, VA18B-43 LA and VA17B-163 LA) ranked among the top ten for average grain yield, that was similar to cultivar Atlantic but higher than SB255 and the overall test average.

Summary of barley management practices for the 2022 harvest season (All rates are given on a per acre basis.)

Blacksburg - Planted October 14, 2021. Pre-plant fertilizer was 30-55-180-10(S). Site was sprayed with 1 oz. Harmony Extra SG® and fertilized with 25 units N using 30% UAN on March 15, 2022. Harvest occurred June 10, 2022.

Blackstone - Planted October 15, 2021. Pre-plant fertilizer was 500 lb 6-6-28 on October 13, 2021. Site received 60 lb. N using UAN + 0.5 oz. Harmony Extra XP® February 11, 2022. Site received 60 lb. N using UAN + 4 oz. Mustang® Maxx on March 28, 2022. Harvest occurred June 7, 2022.

Painter - Planted October 22-23, 2021. Pre-plant fertilizer was 60 lb. N using 30% UAN on October 21, 2021. Application of .75 oz. Harmony + 80 lb. N using 30% UAN April 14, 2022. Harvest occurred June 7, 2022.

Warsaw - Planted November 8, 2021. Lime was applied at 1.2 ton on October 21, 2021. Pre-plant fertilizer was 30-60-60-12 applied October 20, 2021. The site was fertilized using 12-0-0-1.5 at 25 lb. on December 14, 2021 and again on February 15, 2022. Quelex® at 0.75 oz. + surfactant was applied February 16, 2021. Site was fertilized using 24003 at 45 lb. on March 21, 2021. Site received 1-quart Boron and 1-quart Copper on April 2, 2022. Harvest occurred June 6, 2022.

Holland - Planted October 22, 2021. Fertilizer was applied at 370 lb. 8-21-32 + 1000 lb. lime on October 18, 2021. Site was fertilized with 24 gal. 24-0-0-3 + 0.75 oz. Harmony Extra SG® on January 14, 2022 and again with 24 gal. 24-0-0-3 on April 6, 2022. Osprey® was applied at 4.75 oz. on March 15, 2022. Harvest occurred June 7, 2021.

Orange - Planted October 14, 2021. Pre-plant fertilizer was 195 lb. 30-60-30 October 12, 2021. Forty lb. N was applied February 11, 2022. Thirty lb. N plus 0.5 oz. Harmony Extra SG® was applied March 15, 2022. Harvest occurred June 14, 2022.

Table 1. Summary of performance of entries in the Virginia Tech Barley Test, 2022 harvest.

Barley Lines	Yield (Bu/a @ 48 lb/bu)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Plant Lodging (0-9)	Head Type
	(5)	(5)	(2)	(2)	(2)	
Marouetta	122.7 +	47.2 -	114 +	36 +	1.3	6LX
VA20B-40 LA	121.4 +	50.2 +	113 +	35 +	0.3	6LA
Thoroughbred	118.9 +	49.6 +	113 +	33	1.1	6LA
VA20B-35 LA	117.5 +	49.4	113 +	34	0.1 -	6LA
Hirondella	117.4 +	45.2 -	115 +	32 -	1.4	6LX
Atlantic	115.6 +	48.2	107 -	32 -	2.6 +	6SA
Secretariat	115.2 +	49.2	109 -	32 -	1.6	6SA
VA19B-20 LA	114.2 +	48.5	113 +	34	1.6	6LA
VA20BFHB-18DH442 S/	113.0 +	48.5	110 -	33	1.8	6SA
VA18B-34	112.9 +	49.3	111	33	0.4	6LA
VA18B-23 LA	111.6 +	48.6	112	35 +	1.8	6LA
VA18B-43 LA	111.5 +	48.6	112	33	0.3	6LA
VA20B-37 LA	111.4 +	49.7 +	111	35 +	1.6	6LA
VA18B-39	111.2 +	49.3	110 -	33	0.7	6LA
VA17B-166 LA	110.8 +	50.4 +	110 -	33	0.8	6LA
VA18B-52 LA (Dec.)	110.8 +	49.5 +	109 -	33	0.8	6LA
VA18BFHB-80 LA	110.2 +	49.8 +	112	34	0.6	6LA
SB255	109.6 +	49.7 +	110 -	35 +	1.4	6LA
VA17B-163 LA	108.4	50.6 +	109 -	33	0.7	6LA
VA18B-33 LA	106.5	49.6 +	110 -	33	2.1 +	6LA
VA16BFHB-266 NA-19	103.9	48.0	111	39 +	1.1	6NA
LCS Calypso	102.3	46.9 -	116 +	33	0.8	2LA
Barsoy	101.2	48.7	107 -	33	2.9 +	6LA
DH142010	100.9	46.0 -	116 +	29 -	1.1	2LA
BC Fay	98.6 -	46.3 -	113 +	28 -	1.3	2LA
Flavia	98.3 -	47.1 -	117 +	27 -	0.3	2LA
Avalon	96.9 -	50.4 +	114 +	35 +	0.4	2LA
DH150115	96.4 -	48.0	114 +	30 -	0.3	2LA
VT Beahm	95.7 -	47.5	107 -	40 +	1.1	6NA
LCS Violetta	95.5 -	49.3	112	29 -	0.8	2LA
VA92-42-46	89.4 -	46.9 -	110 -	38 +	1.1	6NA
DH141969	88.1 -	48.0	110 -	28 -	0.6	2LA
Wysor	86.9 -	46.1 -	109 -	38 +	1.5	6NA
Nomini	86.7 -	46.3 -	106 -	37 +	1.9 +	6NA
DH141515	86.2 -	47.8	121 +	33	0.4	2LA

Table 1. Summary of performance of entries in the Virginia Tech Barley Test, 2022 harvest.

Barley Lines	Yield (Bu/a @ 48 lb/bu)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Plant Lodging (0-9)	Head Type
	(5)	(5)	(2)	(2)	(2)	
BC Clementine	86.1 -	46.4 -	113 +	28 -	0.0 -	2LA
VA16M-84	85.7 -	50.6 +	114 +	37 +	0.0 -	2LA
VA16BFHB-266 NA-16	75.8 -	47.2 -	110 -	39 +	1.0	6NA
Average	103.8	48.4	112	33	1.0	
LSD (0.05)	4.8	1.0	1	1	0.8	
C.V.	7.2	2.9	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.

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

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

Head type: LA = Long Awn, SA = Short Awn, NA = No Awn, LX = Laxed Awn

Table 2. Two-year average summary of performance of entries in the Virginia Tech Barley Tests, 2021 and 2022 harvests.

Barley Lines	Yield (Bu/a @ 48 lb/bu)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Plant Lodging (0-9)
	(10)	(10)	(4)	(5)	(4)
Thoroughbred	113.4 +	50.8	114 +	33	0.0 -
Hirondella	113.4 +	47.1 -	116 +	31	1.0
VA19B-20 LA	111.2 +	50.1	114 +	33	1.0
VA17B-166 LA	110.8 +	52.1 +	110	33	0.3 -
VA18B-34	110.2 +	50.5	112	32	0.0 -
Secretariat	109.7 +	50.0	109 -	31	1.0
VA18B-39	109.4 +	50.9 +	111	31	0.3 -
VA18B-23 LA	108.7 +	50.6	112	34	0.0 -
VA17B-163 LA	108.7 +	51.8 +	110	33	0.3 -
Atlantic	107.8 +	49.7	108 -	31	2.8 +
VA18BFHB-80 LA	107.8 +	51.3 +	113	34	0.3 -
VA18B-43 LA	106.7	50.3	112	32	0.0 -
VA18B-52 LA (Dec.)	106.7	51.1 +	110	32	0.0 -
SB255	106.5	51.4 +	112	35 +	1.0
VA18B-33 LA	104.9	51.1 +	111	32	0.0 -
LCS Calypso	99.6	48.5 -	116 +	31	0.3 -
Barsoy	96.1	49.7	109 -	33	3.0 +
BC Fay	95.1 -	48.2 -	115 +	28 -	1.3
Flavia	94.9 -	48.9	116 +	29 -	0.3 -
LCS Violetta	90.1 -	50.5	113	29 -	0.8
VA92-42-46	88.6 -	48.4 -	110	36 +	0.0 -
VT Beahm	86.9 -	48.1 -	109 -	38 +	0.6
Wysor	85.6 -	47.5 -	111	36 +	1.0
BC Clementine	83.0 -	48.5 -	115 +	29 -	0.0 -
Nomini	82.9 -	47.5 -	108 -	36 +	1.8
Average	101.6	49.8	112	32	1.2
LSD (0.05)	5.9	1.0	2	2	0.7
C.V.	12.6	4.1	2	10	---

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 lodging where 0 = highly resistant and 9 = highly susceptible.

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

Table 3. Three-year average summary of performance of entries in the Virginia Tech Barley Tests, 2020, 2021, and 2022 harvests.

Barley Lines	Yield (Bu/a @ 48 lb/bu)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Plant Lodging (0-9)
	(15)	(15)	(6)	(7)	(7)
Hirondella	112.9 +	47.2 -	117 +	32	0.9
Secretariat	108.9 +	49.5	108 -	31 -	1.8
Thoroughbred	108.8 +	50.3 +	113 +	34	0.9
VA18B-39	107.7	50.1	110	32	1.3
VA18B-52 LA (Dec.)	106.7	50.6 +	109 -	33	0.9
VA17B-166 LA	106.7	51.4 +	109 -	33	1.0
VA18B-34	106.7	50.0	110	33	1.3
VA18B-43 LA	106.6	49.7	111	34	0.6
VA17B-163 LA	106.4	51.1 +	108 -	33	1.1
Atlantic	106.3	49.3	106 -	32	2.4 +
VA18B-23 LA	106.1	50.2 +	112 +	35 +	1.9 +
VA18BFHB-80 LA	104.4	50.5 +	112 +	36 +	0.4 -
VA18B-33 LA	104.1	50.5 +	110	33	1.8
SB255	103.5	50.7 +	110	36 +	0.7
LCS Calypso	102.6	48.4	116 +	33	0.6
BC Fay	99.7	48.0 -	113 +	29 -	0.8
Flavia	99.7	48.9	117 +	29 -	0.3 -
LCS Violetta	93.3 -	50.0	112 +	30 -	0.8
Barsoy	93.1 -	49.0	106 -	33	2.3 +
BC Clementine	91.4 -	48.7	113 +	29 -	0.2 -
Wysor	88.8 -	47.1 -	109 -	38 +	2.5 +
Nomini	88.6 -	46.8 -	106 -	37 +	1.8
VA92-42-46	87.7 -	47.7 -	109 -	38 +	1.4
VT Beahm	87.6 -	47.8 -	107 -	39 +	1.0
Average	101.2	49.3	111	33.4	1.2
LSD (0.05)	7.3	0.9	1	1	0.6
C.V.	19.0	4.9	1	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 lodging where 0 = highly resistant and 9 = highly susceptible.

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

Table 4. Summary of performance of entries in the Virginia Tech Barley Test, Kentland Farm, Blacksburg, VA, 2022 harvest.

Barley Lines	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Yield (Bu/a @ 48 lb/bu)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)
Marouetta	--	--	158.1 +	48.0 -	115 +	40 +
Secretariat	121.5 +	140.0 +	154.4 +	50.2	110 -	38 +
VA20BFHB-18DH442 SA	--	--	149.7 +	51.2 +	112	39 +
Hirondella	123.6 +	135.3 +	146.6 +	43.8 -	117 +	35
VA20B-37 LA	--	--	144.9 +	51.9 +	113	36
Thoroughbred	120.9 +	139.3 +	144.7 +	50.6	114	33
VA17B-166 LA	113.9	139.4 +	143.7 +	52.6 +	112	33
VA18B-34	116.9 +	134.6 +	142.9 +	51.9 +	112	37 +
VA20B-35 LA	--	--	142.8 +	51.0	114	30 -
Atlantic	114.0	134.3 +	142.5 +	50.6	108 -	26 -
VA18B-23 LA	114.6 +	134.7 +	141.4 +	50.5	113	33
VA18BFHB-80 LA	120.1 +	136.4 +	139.9 +	52.0 +	113	33
VA18B-39	114.3	135.5 +	139.7 +	51.3 +	112	34
SB255	102.6	123.4	139.4 +	51.0	112	30 -
VA18B-33 LA	112.5	129.1	138.9 +	51.7 +	112	28 -
VA18B-52 LA (Dec.)	112.7	129.9	138.6 +	52.5 +	111 -	34
VA20B-40 LA	--	--	138.5 +	50.4	114	34
VA18B-43 LA	110.2	126.9	136.6	50.7	113	34
VA19B-20 LA	--	130.3	135.2	49.5	114	34
Barsoy	93.5 -	114.1	131.9	50.3	109 -	35
VA17B-163 LA	109.5	131.3	130.9	52.7 +	111 -	35
VA16BFHB-266 NA-19	--	--	122.7	49.6	113	41 +
Avalon	--	--	118.4	51.7 +	115 +	36
VA16BFHB-266 NA-16	--	--	117.0	49.3	113	38 +
Amaze 10	--	--	114.4	60.1 +	115 +	34
LCS Calypso	110.1	114.0	109.9 -	45.9 -	118 +	36
BC Fay	105.4	110.9 -	109.8 -	44.5 -	115 +	34
DH142010	--	--	109.5 -	44.4 -	118 +	35
VT Beahm	91.3 -	108.2 -	109.4 -	48.4 -	109 -	38 +
DH150115	--	--	107.3 -	47.8 -	115 +	36
VA92-42-46	89.4 -	109.8 -	106.5 -	48.1 -	113	41 +
Wysor	90.8 -	107.9 -	106.2 -	47.7 -	112	40 +
LCS Violetta	97.7 -	100.2 -	103.3 -	48.7 -	115 +	34
Greg	--	--	103.3 -	59.8 +	115 +	33
VA16M-84	--	--	102.6 -	52.8 +	115 +	28 -
Flavia	103.4	102.0 -	98.5 -	46.1 -	119 +	30 -
DH141515	--	--	96.2 -	47.5 -	124 +	30 -

Table 4. Summary of performance of entries in the Virginia Tech Barley Test, Kentland Farm, Blacksburg, VA, 2022 harvest.

Barley Lines	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Yield (Bu/a @ 48 lb/bu)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)
BC Clementine	97.6 -	91.8 -	91.2 -	44.7 -	115 +	37 +
DH141969	--	--	87.9 -	48.6 -	112	36
Nomini	85.5 -	101.4 -	86.5 -	47.6 -	108 -	37 +
Average	107.2	122.4	124.6	49.9	113	34
LSD (0.05)	7.2	9.9	13.1	1.0	1	2
C.V.	8.1	8.0	7.3	1.4	0.5	4

Released cultivars are shown in bold print.

Varieties are ordered by descending one-year 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 lodging where 0 = highly resistant and 9 = highly susceptible.

Table 5. Summary of performance of entries in the Virginia Tech Barley Test, Southern Piedmont AREC, Blackstone, VA, 2022 harvest.

Barley Lines	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Yield (Bu/a @ 48 lb/bu)	Test Weight (Lb/bu)
VA20B-35 LA	--	--	108.7 +	47.2
Hirondella	98.3	92.4	107.9 +	43.7 -
VA20B-40 LA	--	--	107.0 +	46.6
Marouetta	--	--	104.7 +	43.7 -
Atlantic	90.3	80.4	99.7	45.3
VA18B-23 LA	95.5	88.3	98.8	46.4
Secretariat	96.8	84.6	98.0	45.1
VA20BFHB-18DH442 SA	--	--	97.5	45.4
DH142010	--	--	95.4	44.3 -
LCS Calypso	85.8	78.4	95.2	45.7
Thoroughbred	92.1	87.5	95.0	45.9
VA17B-166 LA	91.9	86.5	94.1	46.9
VA18BFHB-80 LA	91.8	83.9	93.5	46.8
Flavia	90.8	79.0	92.7	43.8
VA19B-20 LA	--	84.4	92.5	45.9
SB255	95.7	87.1	91.9	47.1
VA18B-39	89.0	80.3	90.5	46.2
Avalon	--	--	90.1	47.3
VA18B-43 LA	86.4	78.6	90.0	47.1
VA18B-34	87.1	79.4	89.9	45.8
BC Fay	90.8	83.9	88.3	44.8
DH150115	--	--	87.8	45.6
VA17B-163 LA	89.3	83.1	87.4	46.5
Barsoy	86.2	80.1	85.3	44.5 -
VA18B-52 LA (Dec.)	88.5	75.3	84.9	46.7
VA20B-37 LA	--	--	84.0	46.2
Amaze 10	--	--	83.6	56.1 +
VA18B-33 LA	90.1	80.7	83.3	45.9
Greg	--	--	82.9	57.5 +
LCS Violetta	80.3	72.2	82.7	44.8
VA16M-84	--	--	76.9 -	50.4 +
DH141969	--	--	75.7 -	45.8
BC Clementine	76.5	63.9 -	72.1 -	48.6 +
DH141515	--	--	71.9 -	45.8
VA16BFHB-266 NA-19	--	--	70.3 -	45.7
Wysor	**	**	**	**

Table 5. Summary of performance of entries in the Virginia Tech Barley Test, Southern Piedmont AREC, Blackstone, VA, 2022 harvest.

Barley Lines	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Yield (Bu/a @ 48 lb/bu)	Test Weight (Lb/bu)
Nomini	**	**	**	**
VA92-42-46	**	**	**	**
VT Beahm	**	**	**	**
VA16BFHB-266 NA-16	**	**	**	**
Average	89.7	81.4	90.0	46.6
LSD (0.05)	14.8	13.7	9.9	1.9
C.V.	19.7	16.6	8.2	7.3

Released cultivars are shown in bold print.

Varieties are ordered by descending one-year yield averages.

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

** : Deer feeding at this site was extensive. Data for severely damaged lines not reported.

Table 6. Summary of performance of entries in the Virginia Tech Barley Test, Tidewater AREC, Holland, VA, 2022 harvest.

Barley Lines	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Yield (Bu/a @ 48 lb/bu)	Test Weight (Lb/bu)
VA20B-40 LA	--	--	103.9 +	49.9
Thoroughbred	74.0	78.7 +	94.9 +	46.7
VA20B-35 LA	--	--	94.8 +	47.3
Flavia	74.9	75.0	88.3	45.3
BC Clementine	78.8 +	80.4 +	86.0	45.7
VA20B-37 LA	--	--	84.9	46.8
VA19B-20 LA	--	75.6	83.2	47.5
DH141515	--	--	81.8	47.5
Marouetta	--	--	79.2	45.7
Hirondella	73.6	74.9	77.8	45.4
BC Fay	65.1	61.3	77.4	44.3
VA18B-52 LA (Dec.)	73.1	68.1	76.4	46.0
DH142010	--	--	75.8	44.3
VA18B-43 LA	69.5	65.6	75.8	46.7
VA16M-84	--	--	75.3	47.0
LCS Violetta	69.1	66.2	74.3	45.8
VA18B-23 LA	70.4	70.8	74.0	46.3
Greg	--	--	73.3	55.3 +
VA18BFHB-80 LA	63.9	66.4	71.8	45.4
VA18B-34	65.1	68.8	70.9	47.1
VA18B-33 LA	62.5	62.8	70.7	46.0
VA17B-166 LA	66.2	65.0	70.3	47.4
Atlantic	58.6 -	52.6 -	69.6	45.2
Avalon	--	--	69.2	47.0
VA17B-163 LA	73.3	64.4	68.8	48.0
VA18B-39	71.8	66.0	67.7	47.0
DH141969	--	--	67.7	46.3
DH150115	--	--	67.6	46.3
SB255	67.0	67.8	67.2	46.8
LCS Calypso	72.3	67.4	66.3	45.0
Amaze 10	--	--	64.5	56.5 +
Barsoy	63.9	64.0	63.9	45.2
VA20BFHB-18DH442 SA	--	--	61.2 -	45.8
Secretariat	59.2	55.3 -	59.9 -	46.7

Table 6. Summary of performance of entries in the Virginia Tech Barley Test, Tidewater AREC, Holland, VA, 2022 harvest.

Barley Lines	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Yield (Bu/a @ 48 lb/bu)	Test Weight (Lb/bu)
VA16BFHB-266 NA-16	**	**	**	**
Wysor	**	**	**	**
Nomini	**	**	**	**
VA92-42-46	**	**	**	**
VT Beahm	**	**	**	**
VA16BFHB-266 NA-19	**	**	**	**
Average	68.6	67.5	75.1	46.9
LSD (0.05)	10.0	10.6	12.0	4.3
C.V.	15.1	14.6	11.1	6.4

Released cultivars are shown in bold print.

Varieties are ordered by descending one-year yield averages.

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

****:** Deer feeding at this site was extensive. Data for severely damaged lines not reported.

Table 7. Summary of performance of entries in the Virginia Tech Barley Test, Northern Piedmont Center, Orange, VA, 2022 harvest.

Barley Lines	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Yield (Bu/a @ 48 lb/bu)	Test Weight (Lb/bu)
Secretariat	118.58	125.8	126.1 +	48.9
Marouetta	--	--	124.5 +	45.8
Thoroughbred	124.03	140.2	120.4 +	50.5
VA18B-43 LA	119.32	130.5	119.9 +	47.1
VA18B-34	121.77	136.4	119.6 +	48.3
Atlantic	121.79	135.8	119.4 +	46.9
VA17B-163 LA	120.16	135.6	118.3 +	50.0
SB255	115.18	129.9	117.0 +	49.1
VA19B-20 LA		143.6 +	116.5 +	46.5
VA18BFHB-80 LA	116.87	136.8	114.7 +	50.6
VA20B-40 LA	--	--	113.5 +	49.3
VA20BFHB-18DH442 SA	--	--	113.3 +	46.1
VA17B-166 LA	122.13	145.9 +	112.6 +	50.1
VA18B-33 LA	112.38	128.7	112.3 +	50.5
VA20B-37 LA	--	--	112.2 +	49.1
VA18B-52 LA (Dec.)	118.42	143.6 +	112.2 +	49.0
Hirondella	116.34	127.9	111.7 +	43.9 -
VA18B-23 LA	118.05	129.1	109.9 +	47.1
VA20B-35 LA	--	--	107.6	47.7
VA18B-39	111.78	130.1	106.9	48.1
LCS Calypso	111.5	124.4	99.9	47.6
VT Beahm	101.39	118.3	94.9	46.4
DH150115	--	--	93.5	47.4
Barsoy	96.232	101.0 -	93.2	48.7
Avalon	--	--	89.6	50.7
DH142010	--	--	88.7	47.1
VA16BFHB-266 NA-19	--	--	86.9 -	46.2
Amaze 10	--	--	86.3 -	54.9 +
Nomini	99.798	120.5	85.9 -	44.3 -
Greg	--	--	84.8 -	57.4 +
LCS Violetta	92.842 -	104.1 -	82.7 -	51.3
VA92-42-46	90.737 -	107.9 -	81.0 -	45.9
BC Fay	95.927	101.2 -	79.4 -	47.3
Flavia	103.27	124.1	79.0 -	47.9
Wysor	97.493	114.9	78.5 -	44.1 -

Table 7. Summary of performance of entries in the Virginia Tech Barley Test, Northern Piedmont Center, Orange, VA, 2022 harvest.

Barley Lines	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Yield (Bu/a @ 48 lb/bu)	Test Weight (Lb/bu)
DH141969	--	--	75.2 -	48.2
VA16M-84	--	--	70.3 -	50.9
VA16BFHB-266 NA-16	--	--	67.6 -	46.2
DH141515	--	--	57.9 -	46.2
BC Clementine	82.72 -	92.7 -	56.1 -	45.8
Average	109.5	125.2	98.5	48.2
LSD (0.05)	15.0	16.0	10.8	3.3
C.V.	15.6	13.3	7.5	4.8

Released cultivars are shown in bold print.

Varieties are ordered by descending one-year 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 lodging where 0 = highly resistant and 9 = highly susceptible.

Table 8. Summary of performance of entries in the Virginia Tech Barley Test, Eastern Virginia AREC, Warsaw, VA, 2022 harvest.

Barley Lines	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Yield (Bu/a @ 48 lb/bu)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Plant Lodging (0-9)
VA20BFHB-18DH442 SA	--	--	152.4 +	50.9	108 -	33	2.3
Marouetta	--	--	147.0 +	49.3	112 +	35 +	1.8
VA19B-20 LA	--	140.4 +	144.3 +	50.6	112 +	37 +	2.3
BC Fay	131.4	124.9	144.1 +	49.0 -	112 +	32	1.3
Hirondella	141.9	134.9 +	143.0 +	47.2 -	114 +	31	1.8
VA18B-39	141.1	132.1	140.5 +	50.8	108 -	31	1.1
LCS Calypso	134.3	127.8	139.6 +	48.7 -	114 +	27 -	1.3
VA20B-40 LA	--	--	139.5	51.2	112 +	34	0.5
VA20B-37 LA	--	--	139.2	51.5 +	109	33	2.3
Thoroughbred	137.1	135.8 +	138.5	50.8	112 +	37 +	2.3
BC Clementine	120.1	108.2 -	138.1	49.5	110	31	0.0 -
VA18B-34	142.3 +	135.4 +	138.0	49.7	109	32	0.8
Secretariat	142.2	136.0 +	137.7	50.9	107 -	36 +	2.3
VA20B-35 LA	--	--	137.6	51.5 +	112 +	33	0.3
VA18B-43 LA	138.2	130.5	137.3	50.1	111 +	28 -	0.5
VA17B-163 LA	136.7	135.0 +	136.5	51.7 +	107 -	31	1.1
Atlantic	136.0	130.5	135.3	50.2	106 -	28 -	2.5
DH142010	--	--	134.9	48.3 -	114 +	28 -	0.3
LCS Violetta	124.9	121.1	134.6	51.5 +	110	32	0.9
VA18B-33 LA	135.0	129.3	134.3	50.6	109	32	4.3 +
VA17B-166 LA	132.2	128.9	133.6	51.3	108 -	33	1.4
VA18B-23 LA	130.0	125.4	133.3	50.3	110	31	3.5 +
VA18B-52 LA (Dec.)	135.0	127.3	133.1	50.7	107 -	29 -	1.5
Flavia	124.2	117.1 -	133.1	49.1	115 +	39 +	0.3
SB255	135.3	131.2	132.4	52.0 +	107 -	34	1.8
VA18BFHB-80 LA	128.0	128.2	132.2	51.4 +	110	33	0.9
Barsoy	122.4	119.1	131.9	50.6	104 -	32	2.8 +
VA16BFHB-266 NA-19	--	--	129.7	47.7 -	108 -	38 +	1.8
DH141969	--	--	129.1	48.9 -	107 -	28 -	1.3
VA92-42-46	118.2 -	118.0 -	127.2	46.9 -	107 -	33	2.3
DH150115	--	--	125.7	50.4	114 +	29 -	0.4
Nomini	125.3	120.3	125.2	47.2 -	104 -	32	2.0
Avalon	--	--	121.5 -	51.3	113 +	33	0.9
VT Beahm	117.9 -	115.3 -	118.7 -	47.7 -	105 -	35 +	1.5
DH141515	--	--	116.0 -	50.0	117 +	34	0.6

Table 8. Summary of performance of entries in the Virginia Tech Barley Test, Eastern Virginia AREC, Warsaw, VA, 2022 harvest.

Barley Lines	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Yield (Bu/a @ 48 lb/bu)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Plant Lodging (0-9)
Wysor	113.3 -	108.3 -	114.7 -	46.8 -	107 -	36 +	2.0
VA16BFHB-266 NA-16	--	--	111.4 -	47.7 -	108 -	38 +	1.8
Amaze 10	--	--	106.2 -	59.8 +	113 +	35 +	1.3
VA16M-84	--	--	105.5 -	51.7 +	113 +	34	0.0 -
Greg	--	--	100.2 -	56.2 +	112 +	37 +	0.0 -
Average	131.0	126.4	131.3	50.3	110	33	1.4
LSD (0.05)	11.2	7.4	8.2	1.2	1	1	1.2
C.V.	10.4	5.8	4.3	1.7	1	3	--

Released cultivars are shown in bold print.

Varieties are ordered by descending one-year 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 lodging where 0 = highly resistant and 9 = highly susceptible.

Table 9. Summary of performance of entries in the Virginia Tech Barley Test, Eastern Shore AREC, Painter, VA, 2022 harvest.

Barley Lines	2-year Av. Yield (Bu/a)	Yield (Bu/a @ 48 lb/bu)	Test Weight (lb/bu)
Marouetta	--	88.0 +	45.9
VA18B-33 LA	69.9	73.9	49.2
VA20B-40 LA	--	73.8	47.1
VA18B-23 LA	64.1	73.0	49.2
Hirondella	68.9	72.8	47.9
VA20B-35 LA	--	72.4	49.0
DH142010	--	72.2	48.1
LCS Calypso	64.8	71.4	49.6
VA20B-37 LA	--	70.2	50.5
DH150115	--	69.7	49.5
VA18B-34	68.4	69.6	49.0
Thoroughbred	61.2	68.6	52.4
VA19B-20 LA	66.0	68.0	49.3
VA18BFHB-80 LA	57.9	67.8	50.2
Atlantic	64.0	67.8	49.9
VA17B-166 LA	69.3	67.8	51.2
VA17B-163 LA	64.1	67.5	49.4
DH141969	--	67.1	50.4
Amaze 10	--	66.3	58.0
DH141515	--	66.2	49.2
Avalon	--	66.1	49.6
BC Clementine	54.5	65.7	49.0
VA18B-39	72.9	65.2	50.1
Greg	--	65.2	57.7
SB255	64.7	63.4	50.6
BC Fay	60.1	63.1	49.0
Flavia	57.2	62.8	45.3
LCS Violetta	57.1	62.5	50.8
VA18B-52 LA (Dec.)	65.9	61.9	49.7
VA18B-43 LA	63.6	60.6	46.9
Secretariat	60.2	60.2	49.3
VA16M-84	--	56.2	50.3
VA20BFHB-18DH442 SA	--	44.2 -	48.7

Table 9. Summary of performance of entries in the Virginia Tech Barley Test, Eastern Shore AREC, Painter, VA, 2022 harvest.

Barley Lines	2-year Av. Yield (Bu/a)	Yield (Bu/a @ 48 lb/bu)	Test Weight (lb/bu)
Barsoy	42.9	31.7 -	46.3
Wysor	**	**	**
Nomini	**	**	**
VA92-42-46	**	**	**
VT Beahm	**	**	**
VA16BFHB-266	**	**	**
Average	62.7	65.3	49.8
LSD (0.05)	9.3	9.2	4.0
C.V.	12.2	8.9	5.1

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.

NOTE: Three-year data for this location are not being reported because the 2020 field was abandoned.

** : Deer feeding at this site was extensive. Data for severely damaged lines not reported.

Section 2: Barley Scab Research

One of the primary research objectives of the Virginia Tech barley breeding program is to identify and develop cultivars possessing resistance to Fusarium head blight (FHB) or scab. Each year all barley and hulless barley entries in Virginia's Official State Variety Trials are evaluated for FHB at the Eastern Virginia AREC. 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.

Because of very limited infection in 2020 and 2021, only data from the 2022 season are presented. In 2021, entries were inoculated by spreading scabby corn kernels (50g/4-rows) in plots at the booting stage. A moderate level of FHB infection was obtained in 2021. Among 14 hulless lines and varieties tested in 2021, the FHB index ranged from 3.5 to 9 with ISK index ranging from 3.1% to 27.2%. Seven experimental lines and one variety had FHB index values lower than the mean (<1.9) in 2021. Two elite malt barley varieties, Violetta and Calypso, developed in Europe, are currently being recommended for production in the mid-Atlantic and the eastern United States. They both had FHB index, % FDK and ISK index values well below the test mean. Two entries, recent Virginia Tech barley release SB 255 and the experimental line VA18B-33 LA, had FHB and ISK indices significantly lower than the test mean in 2021

Among 40 barley lines and varieties tested in 2022, the FHB index varied from 3.5 to 9.0. Eighteen varieties and experimental lines had FHB index values lower than the mean of 6.0. This included 9 released varieties and 9 experimental lines. Three experimental lines had FHB index values significantly below the mean (< 3.5).

Table 10. Summary of reaction of entries in the Virginia Tech Barley Tests to Fusarium head blight (scab), 2022 harvest

Barley Lines	Date Headed (Julian)	FHB Index (0-9)
Atlantic	107 -	9.0 +
VA19B-20 LA	109 -	9.0 +
VA20BFHB-18DH442 ♀	113 +	9.0 +
VA18BFHB-80 LA	112	8.0
VA20B-35 LA	110 -	8.0
VA17B-163 LA	110 -	7.5
VA18B-23 LA	112	7.5
VA18B-33 LA	112	7.5
VA18B-39	110 -	7.5
VA18B-43 LA	110 -	7.5
VA18B-52 LA (Dec.)	109 -	7.5
VA20B-37 LA	111	7.5
Thoroughbred	113 +	7.0
SB255	113 +	7.0
Hirondella	114 +	7.0
VA18B-34	111	6.5
VA20B-40 LA	116 +	6.5
Secretariat	109 -	6.0
BC Clementine	114 +	6.0
Marouetta	113 +	6.0
Barsoy	114 +	5.5
LCS Violetta	117 +	5.5
DH150115	112	5.5
Avalon	121 +	5.5
Flavia	106 -	5.0
Wysor	113 +	4.5
VA92-42-46	115 +	4.5
VA17B-166 LA	111	4.5
VA16BFHB-266 NA-16	107 -	4.5
LCS Calypso	114 +	4.5
DH141515	109 -	4.5
VT Beahm	110 -	4.3
Nomini	113 +	4.0
BC Fay	107 -	4.0

Table 10. Summary of reaction of entries in the Virginia Tech Barley Tests to Fusarium head blight (scab), 2022 harvest

Barley Lines	Date Headed (Julian)	FHB Index (0-9)
VA16M-84	110 -	4.0
VA16BFHB-266 NA-19	116 +	3.5 -
DH141969	110 -	3.5 -
DH142010	110 -	3.5 -
Average	112	6.0
LSD (0.05)	1	2.5
C.V.	1	--

Released cultivars are shown in bold print.

Varieties are ordered by descending FHB index averages 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 lodging where 0 = highly resistant and 9 = highly susceptible.

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

Section 3: Wheat Varieties

Wheat trials were planted in seven-inch rows at Blackstone, Orange, Holland, Painter, and Shenandoah Valley. They were planted in six-inch rows at Blacksburg and Warsaw. The no-till locations (Holland and Shenandoah Valley) were planted at 48 seeds per square foot. All other locations were planted at 44 seeds per square foot. Due to excessive deer damage and poor yields, the tests at Painter and Holland are not included in over-location analysis for wheat.

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. Dr. Nicholas Santantonio, Virginia Tech's small grains breeder, has many lines starting with "VA" shown in the by- and over-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 2022, in descending yield order were SH7222, Dyna-Gro Laverne, Dyna-Gro Shirley, Dyna-Gro 9002, USG 3451, USG 3472, AgriMAXX 503, Dyna-Gro 9172, and MAS#86. SH 7222 also had a test weight that was significantly higher than the mean of all lines tested. Dyna-Gro Shirley and MAS #86 both had test weights that were significantly lower the mean of all lines tested. Average yield of all lines tested in 2021-22 was 79.8 bushels per acre, down 2.1 bushels per acres from 2020-21.

Released lines with yields higher than the 3-year statewide mean, in descending yield order, were MAS #143, Dyna-Gro 9172, Revere 2169, SH 7222, MBX 127, VA17W-75, and MAS #86. SH 7222 and VA17W-75 also had test weights that were significantly higher than the mean of all lines tested over the 3 years.

Producers who grow large acreages of wheat should plant two or more varieties having significantly different maturity dates in order to ensure harvest of high-quality grain having high test weight and no sprouting. In Virginia it is typical for sporadic or consistent rain showers to interrupt harvest. These wetting and drying cycles and subsequent delays can significantly reduce grain test weight and quality. Growers can circumvent this problem by planting varieties that differ significantly in maturity. 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.

Summary of wheat management practices for the 2022 harvest season (All rates are given on a per acre basis.)

Blacksburg - Planted October 14, 2021. Pre-plant fertilizer was 30-55-180-10(S). Site was sprayed with 1 oz. Harmony Extra SG® and fertilized with 25 units N using 30% UAN on March 15, 2022. Fifty units N using 30% UAN was applied on April 14, 2022. Site received 1 qt of Smart KB® on April 15, 2022. Harvest occurred June 27, 2022.

Blackstone - Planted October 15, 2021. Pre-plant fertilizer was 500 lbs. 6-6-28 on October 13, 2021. Site received 60 lb. N using UAN + 0.5 oz. Harmony Extra XP® February 11, 2022. Site received 60 lb. N using UAN + 4 oz. Mustang® Maxx on March 28, 2022. Harvest occurred June 23, 2022.

Painter - Planted October 22-23, 2021. Pre-plant fertilizer was 60 lb. N using 30% UAN on October 21, 2021. Application of .75 oz. Harmony + 80 lb. N using 30% UAN April 14, 2022. Harvest occurred June 21, 2022.

Warsaw - Planted November 7, 2021. Lime was applied at 1.2 ton on October 21, 2021. Pre-plant fertilizer was 30-60-60-12 applied October 20, 2021. The site was fertilized using 12-0-0-1.5 at 25 lb. on December 14, 2021 and again on February 15, 2022. Quelex® at 0.75 oz. + surfactant was applied February 16, 2021. Site was fertilized using 24003 at 60 lb. on March 22, 2021. Site received 1-quart Boron and 1-quart Copper on April 2, 2022. Harvest occurred June 17, 2022.

Holland - Planted October 22, 2021. Fertilizer was applied at 370 lb. 8-21-32 + 1000 lb. lime on October 18, 2021. Site was fertilized with 24 gal. 24-0-0-3 + 0.75 oz. Harmony Extra SG® on January 14, 2022 and again with 24 gal. 24-0-0-3 on April 6, 2022. Osprey® was applied at 4.75 oz. on March 15, 2022. Harvest occurred June 23, 2021.

Orange - Planted October 14, 2021. Pre-plant fertilizer was 195 lb. 30-60-30 October 12, 2021. Forty lb. N was applied February 11, 2022. Thirty lb. N plus 0.5 oz. Harmony Extra SG® was applied March 15, 2022. Harvest occurred June 30, 2022.

Shenandoah Valley - Planted November 18, 2021. Pre-plant fertilizer was 2 tons poultry litter, 1 qt Round up, 0.5 oz Peak, and 30 lbs. of 30% UAN. Applied 60 units of 30% UAN and 0.5 oz. Harmony Extra XP® on March 10, 2022. Harvest occurred July 1, 2022.

Entries in 2021-22 Virginia Wheat Test, arranged by company.

Company	Line	Seed Treatment reported by company
AgriMAXX Wheat Company 7167 Highbanks Road Mascoutah, IL 62258	AgriMAXX 502	Prime ST Standard = Cruiser 5FS + Maxim 4FS + Vibrance Extreme
	AgriMAXX 503	Prime ST Standard = Cruiser 5FS + Maxim 4FS + Vibrance Extreme
	AgriMAXX 505	Prime ST Standard = Cruiser 5FS + Maxim 4FS + Vibrance Extreme
	AgriMAXX 513	Prime ST Standard = Cruiser 5FS + Maxim 4FS + Vibrance Extreme
	AgriMAXX 514	Prime ST Standard = Cruiser 5FS + Maxim 4FS + Vibrance Extreme
	AgriMAXX 516	Prime ST Standard = Cruiser 5FS + Maxim 4FS + Vibrance Extreme
	AgriMAXX EXP 2105 AgriMAXX EXP 2110 AgriMAXX EXP 2222	Prime ST Standard = Cruiser 5FS + Maxim 4FS + Vibrance Extreme Prime ST Standard = Cruiser 5FS + Maxim 4FS + Vibrance Extreme Prime ST Standard = Cruiser 5FS + Maxim 4FS + Vibrance Extreme
AgriPro 1521 N Convent Street Suites 200 Bourbonnais, IL 60914	SY 007	Cruiser Maxx® Vibrance® Cereals
	SY 547	Cruiser Maxx® Vibrance® Cereals
	SY Viper	Cruiser Maxx® Vibrance® Cereals
	SY 100	Cruiser Maxx® Vibrance® Cereals
	SY 576	Cruiser Maxx® Vibrance® Cereals
	SY Richie	Cruiser Maxx® Vibrance® Cereals
	GP 381	Cruiser Maxx® Vibrance® Cereals
	GP 348 GP 463	Cruiser Maxx® Vibrance® Cereals Cruiser Maxx® Vibrance® Cereals
CORTEVA Agriscience Agriculture Division of DowDuPont 974 Centre Rd, Chestnut Run Plaza Bldg. 735 Wilmington, DE 19805	Pioneer 26R59	Dividend Extreme®
	Pioneer 26R36	Dividend Extreme®
	Pioneer 26R45	Dividend Extreme®
CROPLAN 1080 County Road F West, MS 5850 Shoreview, MN 55126-2910	CP8045	Warden Cereals II, Resonate® 480 ST
	CPX91221	Warden Cereals II, Resonate® 480 ST
	CP8118	Warden Cereals II, Resonate® 480 ST
Featherstone Seed Inc. 13941 Genito Road, Amelia, VA 23002	Featherstone 125	Vibrance™ Extreme
	Featherstone 3000	Vibrance™ Extreme
Eddie Mercer Agri-Services, Inc. 6900 Linganore Road, Frederick, MD 2170	MBX 127	Cruiser Maxx® Vibrance® Cereals
	MBX 176	Cruiser Maxx® Vibrance® Cereals
	MBX 223	Cruiser Maxx® Vibrance® Cereals
	MBX 2261	Cruiser Maxx® Vibrance® Cereals
Erwin-Kieth, Inc. 1529 Highway 193 Wynne, AR 72396	Progeny #Berkeley	ProServoW
	Progeny #Bullet	ProServoW
	Progeny #Buster	ProServoW
	Progeny 19-12 (#BINGO)	ProServoW
	Progeny #Chad Progeny 20-2	ProServoW ProServoW

Entries in 2021-22 Virginia Wheat Test, arranged by company.

Company	Line	Seed Treatment reported by company
GROWMARK 1701 Towana Avenue Bloomington, IL 61722	FS 891	Dividend Extreme®
	FS 875	Dividend Extreme®
	FS 745	Dividend Extreme®
	FS 743	Dividend Extreme®
	FS 597	Dividend Extreme®
KWS Cereals 495 County Road 1300 N Champaign, IL 61822	KWS394	Cruiser Maxx® Vibrance® Cereals
	KWS398	Cruiser Maxx® Vibrance® Cereals
	KWS405	Cruiser Maxx® Vibrance® Cereals
	KWS414	Cruiser Maxx® Vibrance® Cereals
	KWS415	Cruiser Maxx® Vibrance® Cereals
Local Seed Company LLC 802 Rozelle Street Memphis, TN 38104	Revere 2169	Radius Premium (Imidiclopid, Metalaxyl, Tebuconazole)
	Revere 2148	Radius Premium (Imidiclopid, Metalaxyl, Tebuconazole)
	Revere 2266	Radius Premium (Imidiclopid, Metalaxyl, Tebuconazole)
	Revere 2277	Radius Premium (Imidiclopid, Metalaxyl, Tebuconazole)
Meherrin Agricultural & Chemical Company Southern Harvest 4136 Severn Road Severn, NC 27877	SH 7200	Vibrance™ Extreme, Super Symcoat®
	SH 9520	Vibrance™ Extreme, Super Symcoat®
	SH 7222	Vibrance™ Extreme, Super Symcoat®
	SH 4222	Vibrance™ Extreme, Super Symcoat®
Mid-Atlantic Seeds 204 St. Charles Way, #163E York, PA 17402	MAS #67	MAS Proshield
	MAS #316 PS+	MAS Proshield
	MAS #86	MAS Proshield
	MAS #106	MAS Proshield
	MAS #143	MAS Proshield
	MAS #133	MAS Proshield
	MAS #2	MAS Proshield
	MAS #139	MAS Proshield
	MAS #155	MAS Proshield
	MAS # 189	MAS Proshield
	MAS # 133 PS+	MAS Proshield
	MAS # 86 PS+	MAS Proshield
	MAS # 134	MAS Proshield
	MAS # 316	MAS Proshield

Entries in 2021-22 Virginia Wheat Test, arranged by company.

Company	Line	Seed Treatment reported by company
NC State University (SunGrains) 840 Method Road Unit 3 Raleigh, NC 27695-7629	NC11546-14	Dividend Extreme®
	NC15V25-20	Dividend Extreme®
	NC13211-9	Dividend Extreme®
	NC13955-G125	Dividend Extreme®
	NC18-16913	Dividend Extreme®
Nutrien Ag Solutions 15277 Richmond-Tappahannock Highway St. Stephens Church, VA 23148	Dyna-Gro Shirley	Foothold® Virock™ w/ Awaken® ST
	Dyna-Gro Laverne	Foothold® Virock™ w/ Awaken® ST
	Dyna-Gro 9172	Foothold® Virock™ w/ Awaken® ST
	Dyna-Gro 9120	Foothold® Virock™ w/ Awaken® ST
	Dyna-Gro 9151	Foothold® Virock™ w/ Awaken® ST
	Dyna-Gro 9002	Foothold® Virock™ w/ Awaken® ST
	Dyna-Gro WX20738	Foothold® Virock™ w/ Awaken® ST
	Dyna-Gro WX21741	Cruiser Maxx® Vibrance® Cereals
	Dyna-Gro 9393	Foothold® Virock™ w/ Awaken® ST
	Dyna-Gro 9352	Foothold® Virock™ w/ Awaken® ST
Dyna-Gro WX21793	Foothold® Virock™ w/ Awaken® ST	
Dyna-Gro WX22741	Foothold® Virock™ w/ Awaken® ST	
UniSouth Genetics, Inc. 3205 C Highway 46S Dickson, TN 37055	USG 3118	USG Genetics trt; ipconazole, metalaxyl, imidacloprid
	USG 3472	USG Genetics trt; ipconazole, metalaxyl, imidacloprid
	USG 3451	USG Genetics trt; ipconazole, metalaxyl, imidacloprid
	USG 3783	USG Genetics trt; ipconazole, metalaxyl, imidacloprid
	USG 3352	USG Genetics trt; ipconazole, metalaxyl, imidacloprid
	USG 3563	USG Genetics trt; ipconazole, metalaxyl, imidacloprid
	USG 3463	USG Genetics trt; ipconazole, metalaxyl, imidacloprid
	USG 3363	USG Genetics trt; ipconazole, metalaxyl, imidacloprid
USG 3661	USG Genetics trt; ipconazole, metalaxyl, imidacloprid	
University of Florida 3105 McCarty Hall B Gainesville, FL 32611	FL15105-LDH039	Untreated
	FL16009LDH-16	Untreated
	FL16045LDH-25	Untreated
University of Georgia 1109 Experiment Street Griffin, GA 30223	GA 151313-LDH224-19E38	Vibrance™ Extreme
	GA 111055-19LE12	Vibrance™ Extreme
	GA 121012-19LE8	Vibrance™ Extreme
	GA 11052-19LE15	Vibrance™ Extreme
VIPG, LLC 550 Salem Run Road Charles City, VA 23030	Vision 45	Proshield Extra
	Hardy 2519	Proshield Extra
	HR 5210	Proshield Extra

Entries in 2021-22 Virginia Wheat Test, arranged by company.

Company	Line	Seed Treatment reported by company
Virginia Tech and the Virginia Crop Improvement Association 9142 Atlee Station Road Mechanicsville, VA 23111	MASSEY	Provoke, Raxil-MD Pro, Guacho 600
	Liberty 5658	Foothold® Virock™ w/ Awaken® ST
	VA17W-75	Provoke, Raxil-MD Pro, Guacho 600
	15VDH-FHB-MAS38-01	Provoke, Raxil-MD Pro, Guacho 600
	15VDH-FHB-MAS33-13	Provoke, Raxil-MD Pro, Guacho 600
	HILLIARD	Foothold® Virock™ w/ Awaken® ST
	14VDH-SRW14-150	Provoke, Raxil-MD Pro, Guacho 600
	15VTK-1-101	Provoke, Raxil-MD Pro, Guacho 600
	VA19W-24	Provoke, Raxil-MD Pro, Guacho 600
	VA19W-29	Provoke, Raxil-MD Pro, Guacho 600
	VA19W-31	Provoke, Raxil-MD Pro, Guacho 600
	17VDH-SRW03-143	Provoke, Raxil-MD Pro, Guacho 600
	17VDH-SRW05-169	Provoke, Raxil-MD Pro, Guacho 600
	13VTK429-3	Provoke, Raxil-MD Pro, Guacho 600
	VA19FHB-05	Provoke, Raxil-MD Pro, Guacho 600
	16VTK19-201	Provoke, Raxil-MD Pro, Guacho 600
	DH16-SRW120-064	Provoke, Raxil-MD Pro, Guacho 600
	VA19W-02	Provoke, Raxil-MD Pro, Guacho 600
	VA19W-43	Provoke, Raxil-MD Pro, Guacho 600
	17VDH-SRW01-077	Provoke, Raxil-MD Pro, Guacho 600
	VA19FHB-22	Provoke, Raxil-MD Pro, Guacho 600
	VA19FHB-36	Provoke, Raxil-MD Pro, Guacho 600
	VA20W-69	Provoke, Raxil-MD Pro, Guacho 600
	VA20W-142	Provoke, Raxil-MD Pro, Guacho 600
	VA20W-171	Provoke, Raxil-MD Pro, Guacho 600
	17VTK6-61	Provoke, Raxil-MD Pro, Guacho 600
	17VTK19-15	Provoke, Raxil-MD Pro, Guacho 600
	DH17SRW136-066	Provoke, Raxil-MD Pro, Guacho 600
	17VTK4-29	Provoke, Raxil-MD Pro, Guacho 600
	VA20FHB-20	Provoke, Raxil-MD Pro, Guacho 600
	18VDH-FHB-MAS06-152-03	Provoke, Raxil-MD Pro, Guacho 600
	18VDH-FHB-MAS07-164-01	Provoke, Raxil-MD Pro, Guacho 600
	18VDH-FHB-MAS07-164-08	Provoke, Raxil-MD Pro, Guacho 600
	VA19MAS7-519-1WS-R110	Provoke, Raxil-MD Pro, Guacho 600
	17VDH-SRW05-052	Provoke, Raxil-MD Pro, Guacho 600
	16VDH-FHB-MAS60-7-03	Provoke, Raxil-MD Pro, Guacho 600
	15VDH-HRW15-062	Provoke, Raxil-MD Pro, Guacho 600
	VA18HRW-57	Provoke, Raxil-MD Pro, Guacho 600
VA18HRW-58	Provoke, Raxil-MD Pro, Guacho 600	
VA18HRW-96	Provoke, Raxil-MD Pro, Guacho 600	
15VDH-FHB-MAS25-15	Provoke, Raxil-MD Pro, Guacho 600	
MAS1407-056-6-3	Provoke, Raxil-MD Pro, Guacho 600	
16VDH-SRW03-023	Provoke, Raxil-MD Pro, Guacho 600	
16VDH-SRW03-018	Provoke, Raxil-MD Pro, Guacho 600	
15VDH-FHB-MAS31-30	Provoke, Raxil-MD Pro, Guacho 600	
16VDH-SRW09-025	Provoke, Raxil-MD Pro, Guacho 600	

Released cultivars are shown in bold print.

Table 11. Summary of performance of entries in the Virginia Tech Wheat Test, 2022 harvest.

Line	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Powdery Mildew (0-9)	FHB Index (0-9)	Awns
	(5)	(5)	(2)	(2)	(1)	(1)	
VA19FHB-36	90.7 +	57.4	119 -	35 +	2.5	3.5	A
17VTK4-29	90.2 +	57.1	119 -	32	0.0	4.0	TA
Dyna-Gro WX21793	87.9 +	57.0	122 +	34	0.5	3.0	A
SH 7222 (13VTK429-3)	87.3 +	58.2 +	120	34	0.0	3.0	A
VA19W-29	87.0 +	57.0	119 -	33	2.5	5.0	A
Dyna-Gro WX21741	87.0 +	57.3	121	35 +	3.0	4.5	A
Dyna-Gro Laverne	86.9 +	56.9	117 -	30 -	5.0	2.0 -	TA
15VTK-1-101	86.7 +	56.4	120	30 -	0.5	4.0	A
VA19W-02	86.3 +	57.1	119 -	33	3.0	5.0	A
Dyna-Gro WX22741	86.3 +	54.5 -	122 +	34	1.5	3.5	A
Dyna-Gro Shirley	85.9 +	55.2 -	123 +	33	0.0	5.5 +	TA
USG 3451	85.5 +	57.5	119 -	31	3.0	3.0	AL
USG 3472	85.4 +	56.5	123 +	32	1.0	3.5	A
AgriMAXX 503	85.3 +	57.1	123 +	34	2.5	4.0	AL
17VDH-SRW05-169	85.2 +	56.4	117 -	30 -	0.0	5.0	A
Dyna-Gro 9172	85.2 +	56.4	123 +	32	3.5	3.5	A
MAS #86	85.1 +	56.0 -	122 +	35 +	4.0	3.5	A
VA20W-142	85.1 +	57.3	122 +	35 +	2.5	3.5	TA
VA20FHB-20	84.8	58.4 +	119 -	33	1.0	3.5	A
17VDH-SRW01-077	84.6	57.7 +	118 -	34	0.0	4.7	A
VA17W-75	84.6	58.0 +	117 -	32	0.0	4.0	TA
Progeny 20-2	84.6	58.3 +	121	34	0.0	2.5	AL
MAS #155	84.6	56.7	122 +	34	1.5	3.5	A
KWS394	84.6	55.7 -	123 +	32	2.0	3.5	AL
SY Viper	84.4	57.6	118 -	35 +	0.5	4.0	TA
KWS415	84.3	55.4 -	124 +	33	0.0	3.5	AL
VA19W-24	84.2	57.6	121	31	2.0	4.0	A
MAS # 86 PS+	83.7	56.7	123 +	35 +	4.0	3.5	A
Featherstone 125	83.6	58.8 +	120	33	1.5	5.0	A
17VDH-SRW05-052	83.6	57.1	117 -	30 -	1.5	3.5	A
Revere 2148	83.6	57.4	124 +	34	2.5	2.5	AL
USG 3352	83.4	57.0	124 +	34	2.5	3.5	A
CPX91221	83.3	58.6 +	124 +	32	3.5	4.0	AL
CP8045	83.2	56.5	123 +	33	3.0	3.0	A

Table 11. Summary of performance of entries in the Virginia Tech Wheat Test, 2022 harvest.

Line	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Powdery Mildew (0-9)	FHB Index (0-9)	Awns
	(5)	(5)	(2)	(2)	(1)	(1)	
18VDH-FHB-MAS07-164-08	83.1	56.6	116 -	32	0.0	7.5 +	TA
Vision 45	83.0	57.4	124 +	39 +	0.0	4.0	A
15VDH-FHB-MAS38-01	82.9	56.4	115 -	30 -	0.0	2.5	A
Pioneer 26R45	82.9	55.8 -	122 +	33	4.0	5.5 +	AL
AgriMAXX 513	82.9	57.2	121	32	3.0	3.5	A
18VDH-FHB-MAS07-164-01	82.9	57.1	117 -	33	1.0	7.0 +	TA
15VDH-FHB-MAS33-13	82.9	57.2	121	31	4.0	3.0	AL
MAS #143	82.8	56.4	123 +	32	0.0	4.0	A
Progeny 19-12	82.8	56.2 -	122 +	33	3.0	3.0	A
Progeny #Bullet	82.7	56.6	123 +	34	2.5	6.5 +	A
15VDH-FHB-MAS25-15	82.6	58.0 +	118 -	31	2.5	3.0	A
VA19W-43	82.5	58.0 +	119 -	31	0.5	4.0	A
16VDH-SRW03-018	82.5	57.8 +	119 -	33	2.5	4.5	A
16VDH-SRW03-023	82.4	56.8	120	33	4.0 +	3.5	AL
Liberty 5658	82.3	57.4	118 -	34	3.0	4.0	A
16VDH-FHB-MAS60-7-03	82.3	57.7 +	119 -	32	0.0 -	4.0	AL
USG 3363	82.2	57.7 +	123 +	34	3.0	2.5	A
Progeny #Buster	82.2	57.8 +	119 -	34	5.5	3.0	A
DH17SRW136-066	82.2	56.0 -	121	33	0.0 -	3.0	TA
17VDH-SRW03-143	82.2	58.3 +	119 -	33	0.0	4.0	A
DH16-SRW120-064	82.1	58.3 +	120	31	0.0	5.5 +	A
Dyna-Gro 9151	82.1	58.2 +	123 +	34	3.0	6.0 +	A
AgriMAXX 502	82.1	56.3 -	121	31	0.0	3.0	A
MBX 127	81.9	57.0	122 +	32	4.0	4.0	A
SH 4222	81.8	57.5	122 +	34	1.5	3.0	A
Dyna-Gro WX20738	81.8	56.8	119 -	32	5.0	3.5	A
Revere 2169	81.8	56.5	123 +	32	1.5	8.0 +	A
Pioneer 26R59	81.7	56.3 -	121	30 -	0.5	5.5 +	TA
14VDH-SRW14-150	81.7	56.5	118 -	33	1.0	4.5	A
Progeny #Chad	81.5	56.3 -	118 -	30 -	3.5	4.0	TA
MBX 176	81.5	56.1 -	122 +	33	3.5	3.0	A
VA19MAS7-519-1WS-R110	81.5	58.0 +	124 +	34	1.5	3.0	A
AgriMAXX 505	81.4	57.9 +	122 +	33	4.0	3.0	A
VA19FHB-05	81.4	57.4	119 -	32	2.5	3.5	A

Table 11. Summary of performance of entries in the Virginia Tech Wheat Test, 2022 harvest.

Line	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Powdery Mildew (0-9)	FHB Index (0-9)	Awns
	(5)	(5)	(2)	(2)	(1)	(1)	
MAS1407-056-6-3	81.4	58.2 +	124 +	32	5.0	3.5	A
Featherstone 3000	81.4	57.6	123 +	33	3.0	3.5	AL
Revere 2277	81.3	57.9 +	126 +	33	1.0	3.5	A
AgriMAXX 514	81.2	56.5	122 +	33	3.0	2.5	A
KWS398	81.2	56.3 -	124 +	32	0.0	1.0 -	AL
USG 3463	81.1	56.6	120	33	4.5	3.0	A
Dyna-Gro 9393	81.0	57.2	123 +	32	0.0	5.0	A
MAS # 133 PS+	81.0	55.3 -	123 +	32	1.7	2.0 -	A
Dyna-Gro 9120	81.0	58.2 +	120	32	3.5	3.5	A
Dyna-Gro 9002	81.0	56.3 -	120	33	3.5	3.5	A
Dyna-Gro 9352	80.9	55.9 -	122 +	33	3.0	3.5	AL
AgriMAXX EXP 2110	80.8	57.5	124 +	32	3.0	3.5	A
USG 3118	80.8	57.2	117 -	32	0.0	4.5	TA
15VDH-FHB-MAS31-30	80.7	57.7 +	121 +	32	2.0	3.0	A
16VDH-SRW09-025	80.7	57.0	119 -	33	2.0	3.5	A
USG 3661	80.4	57.9 +	122 +	31	3.0	4.5	TA
KWS414	80.4	55.5 -	125 +	33	3.5	2.5	A
HILLIARD	80.3	56.6	119 -	34	3.0	4.0	A
MAS #316 PS+	80.1	56.5	123 +	36 +	3.0	3.0	A
SY 547	80.1	57.1	120	36 +	4.0	5.0	TA
CP8118	80.1	56.2 -	118 -	30 -	3.0	3.0	AL
AgriMAXX 516	80.0	56.2 -	123 +	32	3.0	3.5	A
AgriMAXX EXP 2105	80.0	56.9	124 +	33	3.5	4.0	A
VA20W-171	79.8	55.6 -	118 -	33	3.0	4.0	A
SY 100	79.7	54.5 -	122 +	31	3.5	2.5	AL
MBX 223	79.6	56.6	121	32	3.5	3.5	A
MAS # 134	79.4	57.3	122 +	31	3.0	2.0 -	TA
17VTK6-61	79.2	58.1 +	118 -	30 -	0.0	4.5	AL
SH 9520	79.2	57.0	125 +	32	4.0	4.0	A
AgriMAXX EXP 2222	79.1	58.0 +	122 +	32	3.0	2.5	A
USG 3783	79.0	57.3	123 +	32	1.5	3.5	A
NC15V25-20	78.5	57.8 +	120	32	4.0	2.0 -	TA
NC18-16913	78.5	57.7 +	119 -	35 +	1.0 -	2.5	A
SY Richie	78.5	56.6	116 -	32	3.0	2.0 -	AL
17VTK19-15	78.4	57.2	121	34	3.5	3.5	A

Table 11. Summary of performance of entries in the Virginia Tech Wheat Test, 2022 harvest.

Line	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Powdery Mildew (0-9)	FHB Index (0-9)	Awns
	(5)	(5)	(2)	(2)	(1)	(1)	
Pioneer 26R36	78.2	56.8	123 +	32	1.5	4.0	A
NC11546-14	78.2	58.1 +	118 -	36 +	3.5 -	3.0	A
SY 007	78.2	57.1	117 -	33	2.5	2.5	A
16VTK19-201	77.9	58.0 +	117 -	34	2.5	3.0	A
FS 743	77.7	56.9	122 +	34	3.5	3.0	A
MAS #67	77.6	55.5 -	121	32	2.0	2.5	AL
GA 11052-19LE15	77.6	57.9 +	119 -	33	1.5	3.0	AL
FS 875	77.3	57.2	121	32	3.0	3.0	A
VA20W-69	77.1	56.0 -	118 -	33	3.5	5.5 +	A
MBX 2261	77.1	56.4	121	33	1.5	3.0	AL
MAS #139	77.0	55.8 -	123 +	32	3.5	3.0	A
FS 745	76.7	56.4	123 +	32	3.0	2.0 -	A
MAS #133	76.6	55.2 -	122 +	32	3.0	3.0	A
GP 463	76.2	56.2 -	120	32	0.5	7.5 +	AL
FS 597	76.2	56.8	119 -	31	2.0	4.0	A
VA19FHB-22	76.0	57.3	119 -	35 +	4.5	5.0	A
Revere 2266	75.9	56.1 -	123 +	32	3.0	2.5	A
NC13211-9	75.8	58.2 +	121	33	3.5	2.0 -	A
USG 3563	75.6	57.1	124 +	34	2.0	3.0	AL
VA19W-31	74.9	56.9	118 -	32	2.0	6.0 +	TA
GP 381	74.7	55.7 -	120	31	1.5	3.5	AL
MAS #2	74.7	58.1 +	124 +	39 +	3.5	2.0 -	AL
KWS405	74.4 -	57.4	121	33	3.5	1.5 -	AL
GA 151313-LDH224-19E38	74.3 -	58.0 +	121	33	0.0	4.0	TA
GP 348	74.1 -	58.6 +	114 -	32	1.0	3.5	TA
SY 576	73.1 -	56.1 -	127 +	34	3.0	4.5	A
SH 7200	72.4 -	57.2	117 -	34	2.5	4.5	A
VA18HRW-57	72.1 -	57.1	125 +	35 +	3.5	4.0	A
FL16045LDH-25	71.6 -	59.3 +	118 -	34	4.0	8.0 +	A
MAS # 316	71.2 -	56.9	123 +	35 +	3.0	4.0	A
MASSEY	71.2 -	56.9	118 -	39 +	1.0	4.0	TA
FS 891	71.1 -	57.3	123 +	33	2.0	2.5	A
18VDH-FHB-MAS06-152-03	70.8 -	56.3 -	119 -	32	5.5	4.0	A
VA18HRW-96	70.8 -	57.1	124 +	35 +	1.0	3.5	A
VA18HRW-58	70.4 -	58.5 +	125 +	35 +	2.0	4.0	A

Table 11. Summary of performance of entries in the Virginia Tech Wheat Test, 2022 harvest.

Line	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Powdery Mildew (0-9)	FHB Index (0-9)	Awns
	(5)	(5)	(2)	(2)	(1)	(1)	
MAS # 189	70.3 -	57.5	115 -	34	1.0	4.0	A
MAS #106	69.7 -	56.4	116 -	31	2.5	2.0 -	A
15VDH-HRW15-062	69.6 -	56.8	124 +	31	1.0	4.5	A
NC13955-G125	68.9 -	56.6	119 -	34	2.5	3.0	A
GA 121012-19LE8	68.9 -	57.7 +	124 +	38 +	0.0	7.0 +	A
HR 5210	68.2 -	56.0 -	124 +	31	1.5	7.0 +	A
FL16009LDH-16	68.2 -	54.9 -	119 -	33	2.0	5.0	AL
FL15105-LDH039	67.8 -	58.6 +	116 -	34	2.5	3.5	A
GA 111055-19LE12	67.4 -	57.3	119 -	33	2.0	3.0	A
Hardy 2519	53.9 -	56.2 -	122 +	30 -	3.5	6.0 +	A
Average	79.8	57.0	121	33	2.2	3.8	
LSD (0.05)	5.1	0.6	1	2	1.1	1.3	
C.V.	10.1	1.8	1	3	---	---	

Released cultivars are shown in bold print.

Varieties are ordered by descending one-year 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 lodging where 0 = highly resistant and 9 = highly susceptible.

Head type: LA = Long Awn, SA = Short Awn, NA = No Awn, LX = Laxed Awn

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

Table 12. Summary of performance of entries in the Virginia Tech Wheat Test, 2022 and 2021 harvests.

Line	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Plant Lodging (0-9)	Leaf Rust (0-9)	Powdery Mildew (0-9)	Barley Yellow Dwarf Virus (0-9)
	(11)	(11)	(4)	(5)	(3)	(2)	(2)	(2)
VA19W-29	87.3 +	58.0	122	34	1.1	2.5	0.0	3
USG 3451	87.2 +	58.7 +	121 -	34	1.3	0.0	0.3	0
Dyna-Gro Laverne	86.8 +	57.8	119 -	28 -	0.9	0.3	0.0	0
USG 3472	86.8 +	57.5 -	124 +	34	1.3	2.5	0.0	0
MAS #86	86.6 +	56.8 -	123	35 +	1.0	4.5 +	0.3	2
Featherstone 3000	86.5 +	58.6 +	124 +	34	1.0	0.0	0.1	2
CPX91221	86.2 +	59.4 +	125 +	33	2.1	3.0	0.2	1
15VDH-FHB-MAS38-01	86.2 +	57.3 -	118 -	30 -	0.8	0.0	0.4	0
Dyna-Gro Shirley	86.1 +	56.5 -	124 +	32 -	0.5	0.8	0.0	1
CP8045	85.8 +	57.5 -	124 +	33	1.6	3.0	0.0	1
Dyna-Gro 9172	85.7 +	57.5 -	124 +	33	1.4	2.0	0.0	2
Dyna-Gro 9002	85.6 +	57.1 -	123	34	1.4	2.5	0.0	0
VA17W-75	85.6 +	59.0 +	118 -	33	0.5	0.0	0.5	2
15VTK-1-101	85.5 +	57.7	123	30 -	1.0	0.0	0.4	0
AgriMAXX 514	85.5 +	57.0 -	124 +	33	1.1	2.5	0.0	4
VA19FHB-05	85.3	58.5 +	121 -	34	1.5	3.5 +	0.0	0
SH 7222 (13VTK429-3)	85.1	59.1 +	123	34	0.9	0.0	0.0	1
Dyna-Gro WX21741	84.9	58.0	123	35 +	1.4	2.5	0.0	2
Progeny #Chad	84.9	57.2 -	121 -	30 -	0.9	0.0	1.3 +	1
Dyna-Gro 9120	84.8	59.4 +	122	32 -	1.0	2.5	0.1	3
14VDH-SRW14-150	84.6	57.8	120 -	33	1.3	0.0	0.0	2
MAS1407-056-6-3	84.5	59.2 +	125 +	34	1.7	0.0	0.0	0
16VDH-SRW03-023	84.4	57.7	122	34	2.1	0.0	0.0	0
DH16-SRW120-064	84.4	59.0 +	123	30 -	1.0	0.3	0.0	1
SY Viper	84.2	58.8 +	121 -	36 +	1.1	3.0	0.6 +	0
MAS #143	84.1	57.4 -	124 +	33	1.6	2.0	0.0	0
Pioneer 26R59	83.9	57.6 -	122	30 -	0.6	2.5	0.0	3
Revere 2169	83.9	57.6 -	124 +	32 -	1.4	2.0	0.0	0
17VDH-SRW03-143	83.7	59.8 +	121 -	34	0.4	0.5	0.2	2

Table 12. Summary of performance of entries in the Virginia Tech Wheat Test, 2022 and 2021 harvests.

Line	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Plant Lodging (0-9)	Leaf Rust (0-9)	Powdery Mildew (0-9)	Barley Yellow Dwarf Virus (0-9)
	(11)	(11)	(4)	(5)	(3)	(2)	(2)	(2)
HILLIARD	83.5	57.8	121 -	34	1.4	0.3	0.0	1
15VDH-FHB-MAS33-13	83.5	58.2	123	33	1.4	0.0	0.2	1
AgriMAXX 513	83.4	58.0	123	33	1.8	2.0	0.1	2
Featherstone 125	83.3	59.9 +	123	34	1.8	0.0	0.0	0
16VDH-SRW03-018	83.2	59.2 +	121 -	34	1.0	0.0	0.2	1
15VDH-FHB-MAS25-15	83.2	58.7 +	120 -	32 -	1.0	0.0	0.0	1
SH 9520	83.2	58.2	126 +	33	0.9	1.5	0.0	3
Dyna-Gro 9151	82.9	59.2 +	124 +	34	1.4	4.0 +	0.0	4
16VDH-SRW09-025	82.9	58.0	121 -	34	0.8	0.5	0.0	1
16VTK19-201	82.6	58.9 +	120 -	34	1.6	0.5	0.0	1
AgriMAXX 502	82.6	57.4 -	123	33	1.6	2.5	0.0	5 +
MBX 127	82.5	57.7	124 +	33	1.6	1.5	0.0	1
Progeny #Bullet	82.5	57.5 -	124 +	35 +	0.5	0.3	0.0	2
AgriMAXX 505	82.4	59.2 +	124 +	34	1.5	3.5 +	0.1	5 +
SY 100	82.3	55.7 -	124 +	32 -	1.6	2.0	0.4	4
AgriMAXX 516	82.0	57.4 -	124 +	32 -	0.8	3.5 +	0.0	1
Liberty 5658	81.8	58.6 +	120 -	34	1.0	0.0	0.0	0
Progeny #Buster	81.8	58.5 +	122	33	1.1	2.0	0.0	1
USG 3118	81.8	58.4	120 -	31 -	0.5	0.0	0.0	1
Pioneer 26R45	81.5	57.1 -	123	34	1.5	1.0	0.3	2
Dyna-Gro WX20738	81.3	57.7	122	34	1.6	0.0	0.1	5 +
AgriMAXX 503	81.1	58.0	124 +	34	1.8	2.5	0.5	1
SY Richie	80.8	57.9	119 -	33	1.4	0.0	0.0	0
Pioneer 26R36	80.5	57.9	125 +	33	2.4 +	0.5	0.1	2
MBX 223	80.5	57.3 -	122	33	1.3	2.5	0.3	3
MAS #139	80.2	56.8 -	124 +	32 -	2.0	5.0 +	0.0	3

Table 12. Summary of performance of entries in the Virginia Tech Wheat Test, 2022 and 2021 harvests.

Line	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Plant Lodging (0-9)	Leaf Rust (0-9)	Powdery Mildew (0-9)	Barley Yellow Dwarf Virus (0-9)
	(11)	(11)	(4)	(5)	(3)	(2)	(2)	(2)
MBX 176	80.2	57.1 -	124 +	33	1.8	3.5 +	0.0	5 +
VA19W-24	80.0	58.6 +	123	33	0.9	0.3	0.0	1
SY 007	79.9	57.8	120 -	34	0.5	1.3	0.4	1
FS 875	79.6	57.4 -	123	34	1.1	3.5 +	0.3	1
SY 547	79.6	57.8	122	36 +	0.9	1.0	0.2	2
MAS #133	79.1	55.7 -	124 +	33	1.0	4.5 +	0.0	3
Revere 2148	79.0 -	58.0	125 +	34	1.4	4.0 +	0.5	1
MAS #67	78.6 -	56.4 -	122	32 -	2.0	1.5	0.0	1
MAS # 316	78.4 -	57.5 -	124 +	35 +	1.5	3.5 +	0.0	4
SH 7200	77.6 -	58.7 +	120 -	35 +	1.4	0.0	0.3	4
VA19W-31	77.1 -	58.4	121 -	33	1.0	0.0	0.6 +	3
FS 891	76.0 -	58.1	124 +	33	1.1	3.0	0.0	3
MAS #2	75.5 -	58.9 +	125 +	39 +	1.3	1.0	2.4 +	2
SY 576	74.5 -	56.9 -	128 +	33	1.2	0.3	0.0	2
NC11546-14	73.4 -	59.1 +	121 -	35 +	0.3	0.5	0.0	3
MASSEY	70.7 -	58.2	121 -	38 +	1.1	7.5 +	1.2 +	1
Hardy 2519	68.0 -	58.4	123	35 +	0.9	0.0	0.3	1
Average	82.2	58.0	123	33	1.2	1.6	0.2	2
LSD (0.05)	3.1	0.4	1	1	1.0	1.9	0.3	2
C.V.	9.2	1.5	1	4	--	--	--	--

Released cultivars are shown in bold print.

Varieties are ordered by descending one-year 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 lodging where 0 = highly resistant and

9 = highly susceptible.

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

Table 13. Summary of performance of entries in the Virginia Tech Wheat Test, 2022, 2021, & 2020 harvest.

Line	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Plant Lodging (0-9)	Leaf Rust (0-9)	Powdery Mildew (0-9)	Barley Yellow Dwarf Virus (0-9)
	(18)	(18)	(6)	(8)	(5)	(1)	(3)	(5)
MAS #143	90.3 +	57.8	123 +	35	1.3	2.0	0.1	1
Dyna-Gro 9172	90.1 +	57.8	123 +	35	1.2	2.0	0.3	1
Revere 2169	88.8 +	58.0	123 +	35	1.3	2.0	0.2	1
SH 7222 (13VTK429-3)	88.8 +	59.2 +	122	36	0.6	0.0	0.0	0
15VDH-FHB-MAS33-13	88.2 +	58.8 +	121	35	2.1 +	0.0	0.4	0
MBX 127	88.2 +	58.0	123 +	35	1.5	1.5	0.1	2
VA17W-75	88.1 +	59.3 +	118 -	36	0.3 -	0.0	0.0	1
MAS1407-056-6-3	88.0 +	59.4 +	124 +	36	1.8	0.0	0.1	0
MAS #86	88.0 +	57.0 -	122	37 +	0.7	4.5 +	0.2	2
16VDH-SRW03-023	87.7	57.9	121	36	1.6	0.0	0.0	0
Dyna-Gro 9120	87.5	59.5 +	120	35	0.7	2.5	0.0	2
14VDH-SRW14-150	87.3	58.0	118 -	36	0.9	0.0	0.0	1
SY Viper	87.3	59.2 +	119 -	37 +	0.7	3.0	0.6	2
Dyna-Gro Shirley	87.2	56.6 -	122	34 -	0.3 -	0.8	0.0	1
Featherstone 125	87.1	60.3 +	121	36	2.0 +	0.0	0.3	0
Progeny #Chad	86.9	57.4 -	120	32 -	0.5	0.0	1.3 +	0
15VDH-FHB-MAS25-15	86.7	59.1 +	119 -	34 -	1.2	0.0	0.0	0
AgriMAXX 502	86.7	57.8	121	35	1.0	2.5	0.0	3 +
Progeny #Bullet	86.5	57.8	123 +	37 +	0.5	0.3	0.3	1
Pioneer 26R45	86.5	57.5 -	122	36	1.1	1.0	0.4	1
15VDH-FHB-MAS38-01	86.4	57.2 -	116 -	32 -	0.6	0.0	0.4	0
Progeny #Buster	86.1	58.5 +	121	36	1.2	2.0	0.0	1
Dyna-Gro 9151	86.0	59.3 +	123 +	36	1.2	4.0 +	0.0	4 +
Pioneer 26R59	85.6	57.9	121	32 -	0.7	2.5	0.0	2
Dyna-Gro Laverne	85.2	58.0	117 -	30 -	1.0	0.3	0.0	0

Table 13. Summary of performance of entries in the Virginia Tech Wheat Test, 2022, 2021, & 2020 harvest.

Line	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Plant Lodging (0-9)	Leaf Rust (0-9)	Powdery Mildew (0-9)	Barley Yellow Dwarf Virus (0-9)
	(18)	(18)	(6)	(8)	(5)	(1)	(3)	(5)
MBX 223	85.2	57.7 -	121	35	0.9	2.5	0.7 +	3 +
HILLIARD	85.2	58.0	120	37 +	0.9	0.3	0.0	1
SY 547	85.2	58.0	121	38 +	0.6	1.0	0.3	1
AgriMAXX 503	85.1	58.0	123 +	36	1.9 +	2.5	0.3	2
Dyna-Gro 9002	85.0	57.3 -	121	36	1.9 +	2.5	0.0	1
16VDH-SRW09-025	84.5	58.1	120	37 +	0.6	0.5	0.0	0
Liberty 5658	84.2	58.8 +	119 -	36	1.0	0.0	0.0	0
AgriMAXX 505	84.2	59.3 +	123 +	36	1.2	3.5 +	0.2	4 +
MAS #133	83.8	55.9 -	123 +	36	0.9	4.5 +	0.1	3 +
USG 3118	83.8	59.0 +	118 -	33 -	0.6	0.0	0.3	0
MBX 176	83.7	57.1 -	123 +	35	1.2	3.5 +	0.2	5 +
MAS # 316	83.7	57.7 -	123 +	37 +	1.7	3.5 +	0.0	3 +
SY Richie	83.2	58.0	117 -	34 -	1.1	0.0	0.0	0
SY 007	82.7	57.8	119 -	36	0.5	1.3	0.2	1
SY 100	82.3 -	55.7 -	124 +	32 -	1.6	2.0	0.4	4 +
SY 576	81.2 -	57.2 -	127 +	36	1.8	0.3	0.0	1
SH 7200	78.6 -	58.8 +	118 -	37 +	1.2	0.0	0.7 +	1
MAS #67	78.4 -	56.4 -	121	34 -	2.0 +	1.5	0.0	2
NC11546-14	73.9 -	59.4 +	120	37 +	0.2 -	0.5	0.3	1
MASSEY	69.1 -	58.4	120	40 +	0.8	7.5 +	1.8 +	6 +
Average	85.1	58.1	121	35	1.1	1.5	0.2	1
LSD (0.05)	2.6	0.3	1	1	0.7	1.6	0.4	1
C.V.	9.1	1.6	1	4	--	--	--	--

Released cultivars are shown in bold print.

Varieties are ordered by descending one-year 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 lodging where 0 = highly resistant and 9 = highly susceptible.

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

Table 14. Summary of performance of entries in the Virginia Tech Wheat Test, Kentland Farm, Blacksburg, VA 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)
CPX91221	--	103.0	111.7 +	61.2 +	125 +	33
USG 3451	--	107.9 +	111.4 +	60.5 +	122	35
USG 3472	--	102.6	110.7 +	58.9	125 +	35
MBX 127	95.0	102.5	110.4 +	58.9	124	35
Dyna-Gro WX21741	--	101.0	110.2 +	59.7	124	38 +
MAS # 86 PS+	--	--	108.1 +	57.9 -	124	37 +
Dyna-Gro WX22741	--	--	108.0 +	55.9 -	125 +	37 +
Dyna-Gro 9120	93.2	101.8	106.9 +	61.6 +	121 -	34
Dyna-Gro WX21793	--	--	106.6 +	59.1	124	34
AgriMAXX 503	97.4	100.5	105.2	58.9	125 +	36
KWS394	--	--	105.1	56.6 -	125 +	31 -
USG 3463	--	--	104.9	58.3	123	33
FS 743	--	--	104.7	59.6	125 +	38 +
USG 3352	--	--	104.5	59.6	126 +	35
MAS1407-056-6-3	95.9	103.2	104.4	60.5 +	126 +	35
17VTK4-29	--	--	104.4	57.9 -	120 -	33
MAS #155	--	--	103.6	59.1	124	36
Dyna-Gro 9002	95.2	104.2 +	103.6	58.3	122	35
AgriMAXX 514	--	101.9	103.5	58.3	125 +	35
AgriMAXX EXP 2105	--	--	103.1	59.1	125 +	35
Dyna-Gro 9393	--	--	103.0	58.9	125 +	34
Pioneer 26R45	97.4	100.5	102.9	57.5 -	124	35
Revere 2277	--	--	102.9	59.2	128 +	34
USG 3661	--	--	102.8	59.5	124	32 -
VA19FHB-36	--	--	102.7	60.2 +	121 -	37 +
USG 3363	--	--	102.5	59.7	125 +	37 +
VA20FHB-20	--	--	102.4	61.4 +	121 -	35
Liberty 5658	92.3	97.1	102.4	60.7 +	119 -	36
SH 4222	--	--	102.3	59.9	125 +	37 +
KWS398	--	--	102.1	57.3 -	125 +	35
Progeny 20-2	--	--	102.1	60.9 +	123	35
Progeny 19-12	--	--	101.8	57.8 -	124	34
Vision 45	--	--	101.8	59.9	125 +	40 +
Featherstone 3000	--	103.1	101.7	60.3 +	124	34
AgriMAXX EXP 2110	--	--	101.5	60.0 +	126 +	34

Table 14. Summary of performance of entries in the Virginia Tech Wheat Test, Kentland Farm, Blacksburg, VA 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)
Dyna-Gro WX20738	--	96.5	101.5	58.7	121 -	35
VA19W-24	--	95.1	101.4	60.3 +	122	34
KWS415	--	--	101.1	56.6 -	125 +	36
VA19W-02	--	--	101.0	59.8	123	34
Pioneer 26R36	--	102.4	100.7	59.6	125 +	35
AgriMAXX 513	--	95.4	100.4	59.7	124	36
VA19W-29	--	99.7	100.4	59.3	122	36
Progeny #Buster	92.5	97.4	100.3	59.7	120 -	35
MAS #143	93.1	97.7	99.9	58.3	124	35
USG 3783	--	--	99.9	59.3	124	34
Dyna-Gro 9151	92.1	94.4	99.4	60.4 +	124	35
16VDH-SRW03-023	95.9	98.0	99.3	58.4	122	34
17VDH-SRW01-077	--	--	99.0	60.0 +	121 -	36
VA20W-142	--	--	98.8	59.7	124	36
Dyna-Gro 9172	91.2	97.3	98.7	58.1	125 +	33
MAS #86	91.9	97.1	98.5	57.4 -	124	37 +
Featherstone 125	93.5	96.7	98.4	61.7 +	123	35
CP8045	--	102.1	98.4	58.5	125 +	33
16VDH-SRW03-018	--	99.1	98.4	60.6 +	122	36
MAS # 133 PS+	--	--	98.4	56.6 -	125 +	34
AgriMAXX 516	--	95.8	98.3	58.0	125 +	34
NC15V25-20	--	--	97.7	59.6	122	35
18VDH-FHB-MAS07-164-01	--	--	97.5	59.3	118 -	33
MBX 176	91.7	96.9	97.5	57.1 -	125 +	35
Revere 2169	92.7	100.0	97.4	58.2	124	34
MBX 223	92.6	95.5	97.4	59.4	124	36
SY Viper	96.6	99.4	97.2	59.5	120 -	37 +
Revere 2148	--	95.1	97.1	58.8	126 +	35
17VDH-SRW05-052	--	--	96.7	59.7	119 -	31 -
FS 745	--	--	96.7	58.1	124	34
18VDH-FHB-MAS07-164-08	--	--	96.6	59.5	118 -	34
Progeny #Chad	96.4	101.6	96.6	58.3	121 -	30 -
SH 7222 (13VTK429-3)	95.1	97.1	96.5	60.7 +	123	35
GA 11052-19LE15	--	--	96.5	60.1 +	122	35

Table 14. Summary of performance of entries in the Virginia Tech Wheat Test, Kentland Farm, Blacksburg, VA 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)
AgriMAXX 505	92.7	96.3	96.4	60.1 +	125 +	35
VA19MAS7-519-1WS-R110	--	--	96.4	60.7 +	125 +	35
17VTK19-15	--	--	96.3	60.1 +	123	36
FS 597	--	--	95.9	58.3	121 -	34
VA17W-75	96.9	99.3	95.8	60.5 +	119 -	34
MAS #139	--	93.0	95.7	56.8 -	124	35
15VDH-FHB-MAS38-01	90.5	99.6	95.7	57.9 -	118 -	30 -
16VDH-FHB-MAS60-7-03	--	--	95.4	59.5	121 -	33
MBX 2261	--	--	94.9	58.3	122	34
Dyna-Gro 9352	--	--	94.9	57.5 -	123	34
CP8118	--	--	94.8	58.5	120 -	32 -
15VDH-FHB-MAS33-13	96.0	98.4	94.8	58.6	124	33
16VDH-SRW09-025	89.0	95.6	94.7	58.5	122	35
DH17SRW136-066	--	--	94.6	58.4	123	34
Progeny #Bullet	92.6	94.6	94.6	58.3	124	36
NC18-16913	--	--	94.3	60.1 +	121 -	36
VA18HRW-58	--	--	94.2	60.9 +	128 +	36
15VTK-1-101	--	96.3	94.1	58.9	123	31 -
NC13211-9	--	--	93.9	60.7 +	124	35
15VDH-FHB-MAS25-15	92.1	97.4	93.3	59.9	121 -	34
MAS #67	86.0	91.3	93.2	57.4 -	122	33
AgriMAXX 502	89.8	93.0	93.1	58.3	124	34
17VDH-SRW05-169	--	--	93.1	58.3	118 -	30 -
GP 463	--	--	93.0	57.5 -	123	33
VA19FHB-22	--	--	93.0	60.1 +	122	36
VA20W-69	--	--	93.0	58.5	119 -	37 +
MAS #316 PS+	--	--	93.0	60.3 +	125 +	35
GP 381	--	--	92.8	57.7 -	121 -	31 -
SY 547	92.3	93.7	92.7	58.7	122	37 +
AgriMAXX EXP 2222	--	--	92.5	60.6 +	125 +	33
16VTK19-201	--	94.2	92.4	60.3 +	119 -	35
HILLIARD	89.6	95.5	92.4	58.9	121 -	35
MAS # 134	--	--	92.3	58.8	124	32 -
GA 151313-LDH224-19E38	--	--	91.9	59.3	123	34
DH16-SRW120-064	--	93.5	91.7	60.3 +	122	32 -
VA20W-171	--	--	91.6	57.1 -	122	34
SH 9520	--	95.9	91.6	59.0	128 +	33

Table 14. Summary of performance of entries in the Virginia Tech Wheat Test, Kentland Farm, Blacksburg, VA 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)
15VDH-HRW15-062	--	--	91.5	59.0	125 +	31 -
USG 3563	--	--	91.2	58.2	126 +	35
NC11546-14	86.5	95.5	91.1	61.6 +	121 -	36
Dyna-Gro Laverne	89.6	96.2	91.0	59.2	119 -	28 -
VA18HRW-96	--	--	90.8	59.7	126 +	36
17VDH-SRW03-143	--	95.3	90.5	60.8 +	122	34
VA19FHB-05	--	98.8	89.9	58.7	121 -	34
KWS414	--	--	89.6	56.8 -	127 +	34
Pioneer 26R59	90.2	93.8	89.3	57.6 -	122	31 -
14VDH-SRW14-150	90.5	95.4	89.2	58.6	120 -	34
15VDH-FHB-MAS31-30	--	--	88.8	60.3 +	124	32 -
Dyna-Gro Shirley	90.4	93.8	88.8	57.5 -	124	33
SY Richie	88.8	93.1	88.7	59.1	118 -	34
MAS #2	--	88.0	88.4	60.5 +	125 +	42 +
VA19W-43	--	--	88.3	59.5	122	32 -
USG 3118	86.2	91.1	88.2	59.5	119 -	31 -
VA18HRW-57	--	--	87.9	58.4	129 +	36
SY 007	84.5	91.2	87.7	59.5	118 -	34
18VDH-FHB-MAS06-152-03	--	--	87.6	58.9	121 -	35
SY 100	95.0	95.0	87.4	56.9 -	123	32 -
KWS405	--	--	87.4	59.1	123	33
FS 875	--	89.4	86.9	59.2	124	36
17VTK6-61	--	--	86.8	60.5 +	121 -	31 -
GA 121012-19LE8	--	--	86.7	59.0	125 +	37 +
Revere 2266	--	--	86.5	57.2 -	125 +	34
MAS # 316	88.1	89.8	86.5	59.5	125 +	36
MAS #133	85.9	87.2 -	86.3	55.4 -	125 +	34
VA19W-31	--	90.4	83.6 -	59.1	121 -	34
FS 891	--	83.8 -	82.9 -	59.6	125 +	34
GP 348	--	--	81.8 -	61.1 +	117 -	32 -
HR 5210	--	--	81.8 -	57.6 -	126 +	31 -
MAS # 189	--	--	80.7 -	59.7	116 -	35
NC13955-G125	--	--	79.8 -	57.3 -	122	37 +
SH 7200	76.4 -	85.3 -	79.3 -	59.0	119 -	35
FL16045LDH-25	--	--	78.1 -	60.2 +	120 -	32 -

Table 14. Summary of performance of entries in the Virginia Tech Wheat Test, Kentland Farm, Blacksburg, VA 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)
FL15105-LDH039	--	--	77.5 -	60.7 +	118 -	34
MAS #106	--	--	76.2 -	58.6	116 -	35
GA 111055-19LE12	--	--	75.8 -	58.9	123	32 -
SY 576	78.9 -	78.8 -	74.8 -	57.7 -	130 +	34
FL16009LDH-16	--	--	74.0 -	55.4 -	122	32 -
Hardy 2519	--	82.9 -	73.9 -	59.9	123	38 +
MASSEY	71.5 -	73.0 -	67.3 -	58.6	120 -	38 +
Average	90.9	97.2	95.0	59.0	123	34
LSD (0.05)	8.4	8.1	10.4	1.0	1	2
C.V.	11.3	8.5	7.8	0.9	1	4

Released cultivars are shown in bold print.

Varieties are ordered by descending one-year yield averages.

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

Table 15. Summary of performance of entries in the Virginia Tech Wheat Test, Southern Piedmont AREC, Blackstone, VA 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
MASSEY	73.2	66.9	70.8	52.8
15VDH-FHB-MAS25-15	78.9	69.5	70.7	54.9
18VDH-FHB-MAS07-164-08	--	--	70.4	53.9
Dyna-Gro 9172	78.0	67.1	70.4	54.6
Featherstone 125	81.1	71.1	70.3	53.8
Revere 2148	--	66.3	70.3	56.0
15VDH-FHB-MAS33-13	81.1	70.1	70.2	53.9
AgriMAXX 505	77.0	68.0	69.6	53.2
17VTK19-15	--	--	69.6	53.7
SY Viper	75.0	63.2	69.5	54.1
SH 7200	75.1	64.1	69.3	53.8
SY 547	77.9	65.5	69.3	52.9
17VTK4-29	--	--	69.0	51.8
15VDH-FHB-MAS31-30	--	--	68.9	54.3
16VDH-FHB-MAS60-7-03	--	--	68.6	52.7
MAS1407-056-6-3	79.7	65.8	67.6	55.3
Dyna-Gro 9120	79.8	70.1	67.3	53.0
15VDH-FHB-MAS38-01	76.1	66.4	67.2	54.3
Progeny #Bullet	76.1	65.5	67.1	53.4
Revere 2169	79.8	66.5	67.1	54.7
Dyna-Gro 9002	81.2	68.5	66.9	55.4
Progeny #Buster	76.0	64.0	66.4	53.5
SY 007	73.7	62.9	66.2	53.5
MAS #86	78.5	66.4	66.0	54.1
18VDH-FHB-MAS07-164-01	--	--	66.0	52.0
USG 3118	78.0	69.8	65.6	52.7
Pioneer 26R45	78.5	63.6	65.6	52.0
AgriMAXX 503	76.5	65.3	65.3	53.7
Vision 45	--	--	65.1	53.5
DH16-SRW120-064	--	65.0	65.0	54.2
AgriMAXX 513	--	64.9	64.5	55.1
MAS #143	76.6	65.0	64.5	53.5
MAS #133	78.5	64.8	64.0	53.2
Dyna-Gro 9151	77.1	64.2	63.9	54.1

Table 15. Summary of performance of entries in the Virginia Tech Wheat Test, Southern Piedmont AREC, Blackstone, VA 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
17VDH-SRW03-143	--	74.6	87.7 +	53.2
VA19W-29	--	76.4 +	86.2 +	53.8
15VTK-1-101	--	70.7	85.1 +	52.0
16VDH-SRW03-023	86.2	76.1 +	84.9 +	54.1
VA19W-24	--	72.8	83.5 +	51.9
VA19FHB-36	--	--	83.2 +	51.8 -
14VDH-SRW14-150	84.7	75.3	82.1 +	54.7
MAS #67	77.5	66.5	80.7 +	53.0
16VDH-SRW09-025	79.3	71.9	80.6 +	53.4
17VDH-SRW05-169	--	--	79.9 +	52.5
VA19W-43	--	--	79.0 +	54.5
Liberty 5658	81.6	72.7	78.3 +	54.8
VA19W-31	--	71.9	78.1 +	53.4
VA19FHB-05	--	69.5	78.0 +	54.2
VA19MAS7-519-1WS-R110	--	--	77.6 +	53.0
VA20W-142	--	--	77.4 +	53.2
VA20W-69	--	--	77.1 +	52.0
AgriMAXX 502	82.0	69.9	76.4 +	51.6 -
17VDH-SRW01-077	--	--	75.7 +	54.1
Dyna-Gro Laverne	82.1	72.7	75.0 +	53.9
Dyna-Gro Shirley	81.3	71.8	74.9 +	51.8 -
MAS #106	--	--	74.2 +	54.5
17VTK6-61	--	--	73.9 +	53.5
VA19W-02	--	--	73.3 +	53.3
SH 7222 (13VTK429-3)	79.2	69.7	73.2 +	51.0 -
VA20W-171	--	--	73.2 +	53.9
NC11546-14	71.9	63.4	73.0 +	53.8
VA17W-75	80.0	68.5	73.0 +	54.9
VA19FHB-22	--	--	72.5 +	53.4
MAS #316 PS+	--	--	72.3 +	55.0
17VDH-SRW05-052	--	--	72.1 +	52.2
HILLIARD	78.9	67.2	71.7 +	53.4
SY 100	70.1	70.1	71.3	53.1
SY Richie	77.0	67.8	70.9	52.8
16VDH-SRW03-018	--	66.7	70.9	53.9

Table 15. Summary of performance of entries in the Virginia Tech Wheat Test, Southern Piedmont AREC, Blackstone, VA 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
Pioneer 26R36	--	64.9	63.8	53.3
Progeny #Chad	82.7	67.2	63.7	54.6
Progeny 19-12	--	--	62.8	52.3
Dyna-Gro WX20738	--	62.7	62.3	55.5
Pioneer 26R59	74.4	64.0	61.6	54.1
Hardy 2519	--	62.5	61.3	52.4
16VTK19-201	--	64.1	61.1	54.7
MBX 127	74.8	62.2	61.0	54.8
USG 3451	--	63.1	60.8	52.8
MAS #2	--	64.1	60.5	55.8
Dyna-Gro 9352	--	--	60.5	54.6
MBX 223	76.5	62.3	60.3	53.6
18VDH-FHB-MAS06-152-03	--	--	60.2	53.9
SY 576	72.7	60.8	60.0	55.0
Dyna-Gro WX21793	--	--	59.9	53.0
VA20FHB-20	--	--	59.7	55.2
CP8045	--	62.2	59.3	53.3
Dyna-Gro WX21741	--	63.2	58.3	53.6
AgriMAXX 514	--	63.7	57.9	52.8
DH17SRW136-066	--	--	57.6	53.7
CPX91221	--	64.0	57.4	54.2
Dyna-Gro WX22741	--	--	56.8	54.0
MBX 176	73.1	61.9	56.5	56.3
FS 891	--	58.6	56.1	53.9
MAS # 133 PS+	--	--	56.0	54.2
GP 381	--	--	55.9	54.9
AgriMAXX EXP 2110	--	--	55.9	54.5
FS 745	--	--	55.8	53.8
USG 3472	--	63.1	55.3	53.1
FS 875	--	58.9	55.3	53.5
Featherstone 3000	--	62.5	55.3	55.2
SH 9520	--	61.6	55.1	52.5
AgriMAXX 516	--	59.2	54.3	54.7
MAS #139	--	61.9	54.3	54.5
AgriMAXX EXP 2222	--	--	54.2	55.2
Progeny 20-2	--	--	53.8	54.9
NC13955-G125	--	--	53.6	54.3

Table 15. Summary of performance of entries in the Virginia Tech Wheat Test, Southern Piedmont AREC, Blackstone, VA 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
FL16009LDH-16	--	--	53.2	53.8
KWS414	--	--	50.5	53.8
GP 348	--	--	50.5	54.9
NC13211-9	--	--	50.5	54.8
AgriMAXX EXP 2105	--	--	49.8	54.0
NC18-16913	--	--	49.5	55.9
FS 597	--	--	49.0 -	52.9
USG 3363	--	--	48.9 -	54.8
KWS415	--	--	48.4 -	55.2
MAS # 189	--	--	48.4 -	53.0
FS 743	--	--	48.3 -	53.4
MAS #155	--	--	47.9 -	54.2
Dyna-Gro 9393	--	--	47.1 -	54.2
CP8118	--	--	46.4 -	55.2
MAS # 134	--	--	46.2 -	55.6
SH 4222	--	--	45.9 -	52.6
KWS405	--	--	45.9 -	56.4
Revere 2266	--	--	44.7 -	54.1
FL15105-LDH039	--	--	44.2 -	55.1
KWS398	--	--	43.9 -	55.0
MAS # 86 PS+	--	--	43.6 -	54.8
GP 463	--	--	42.8 -	55.3
KWS394	--	--	42.7 -	54.8
USG 3661	--	--	41.8 -	55.6
MBX 2261	--	--	41.5 -	56.1
GA 11052-19LE15	--	--	41.2 -	56.9 +
GA 121012-19LE8	--	--	40.4 -	54.7
USG 3563	--	--	40.2 -	54.7
USG 3463	--	--	38.9 -	55.5
USG 3352	--	--	38.1 -	55.3
15VDH-HRW15-062	--	--	37.7 -	54.9
GA 151313-LDH224-19E38	--	--	37.4 -	57.1 +
MAS # 316	68.3	49.5 -	37.4 -	53.1
GA 111055-19LE12	--	--	35.3 -	54.5
NC15V25-20	--	--	35.1 -	52.2

Table 15. Summary of performance of entries in the Virginia Tech Wheat Test, Southern Piedmont AREC, Blackstone, VA 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
Revere 2277	--	--	34.4 -	55.6
USG 3783	--	--	34.1 -	54.7
HR 5210	--	--	34.0 -	56.0
VA18HRW-58	--	--	32.3 -	54.7
VA18HRW-96	--	--	31.4 -	54.8
VA18HRW-57	--	--	30.1 -	55.3
FL16045LDH-25	--	--	30.0 -	54.6
Average	77.7	66.2	60.3	54.4
LSD (0.05)	15.4	9.3	11.2	2.5
C.V.	23.8	13.8	13.1	3.2

Released cultivars are shown in bold print.

Varieties are ordered by descending one-year yield averages.

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

Table 16. Summary of performance of entries in the Virginia Tech Wheat Test, planted No-Till at Tidewater AREC, Holland, VA, 2022 harvest.

Line	Grain Yield (Bu/a)	Test Weight (Lb/bu)
AgriMAXX 516	75.1 +	56.5
USG 3472	74.1 +	56.8
MAS # 133 PS+	73.8 +	55.5 -
AgriMAXX EXP 2110	73.6 +	57.6
AgriMAXX 502	73.3 +	57.8
FS 875	73.2 +	57.8
NC13211-9	73.1 +	60.7 +
Dyna-Gro WX22741	72.9 +	55.3 -
CP8045	72.6 +	56.5
FS 743	72.1 +	57.7
15VDH-FHB-MAS31-30	71.8 +	59.0
MBX 127	71.7 +	56.7
MAS1407-056-6-3	71.7 +	58.7
AgriMAXX 505	71.7 +	59.4 +
USG 3363	71.6 +	57.8
MAS # 86 PS+	71.3 +	57.4
Dyna-Gro 9393	71.3 +	57.9
AgriMAXX EXP 2105	71.2 +	56.1 -
AgriMAXX EXP 2222	71.1	58.9
MAS #86	70.8	57.3
MBX 176	70.6	57.1
MAS # 316	70.4	57.8
Revere 2277	70.3	57.9
Revere 2169	70.3	56.8
SH 4222	70.0	57.7
SH 7222 (13VTK429-3)	69.9	58.9
MAS #139	69.6	55.4 -
MAS #155	69.2	57.1
MBX 223	69.0	58.0
FS 745	69.0	56.4
USG 3352	68.9	57.4
AgriMAXX 514	68.5	56.7
KWS414	68.5	55.1 -
Dyna-Gro 9172	68.1	56.2 -
MAS #316 PS+	67.5	57.9

Table 16. Summary of performance of entries in the Virginia Tech Wheat Test, planted No-Till at Tidewater AREC, Holland, VA, 2022 harvest.

Line	Grain Yield (Bu/a)	Test Weight (Lb/bu)
Dyna-Gro WX21741	66.8	57.6
Dyna-Gro 9120	66.7	59.2 +
Dyna-Gro 9151	66.1	58.7
USG 3463	66.0	56.5
Progeny #Bullet	65.6	57.1
MAS #143	65.3	56.7
AgriMAXX 513	65.2	57.9
15VDH-FHB-MAS25-15	65.1	58.3
Revere 2266	64.8	55.4 -
USG 3783	64.8	58.0
SH 9520	64.7	58.0
MAS #133	64.4	55.2 -
Pioneer 26R36	64.2	57.3
VA19W-02	64.0	58.1
16VTK19-201	63.9	59.2 +
VA19FHB-36	63.9	58.4
VA20FHB-20	63.4	59.2 +
18VDH-FHB-MAS06-152-03	63.4	59.2 +
15VTK-1-101	63.4	57.3
Progeny #Buster	63.4	58.2
Dyna-Gro WX21793	62.4	56.7
17VDH-SRW05-169	62.0	58.0
VA19W-29	61.7	57.3
DH17SRW136-066	61.7	56.3 -
Progeny 19-12	61.4	56.5
VA20W-171	61.3	55.3 -
16VDH-SRW09-025	60.7	57.8
FS 891	60.5	58.0
VA19W-24	60.4	58.5
GA 11052-19LE15	60.1	58.8
NC11546-14	59.9	60.1 +
FS 597	59.9	58.0
16VDH-SRW03-018	59.7	59.6 +
HILLIARD	59.7	57.6

Table 16. Summary of performance of entries in the Virginia Tech Wheat Test, planted No-Till at Tidewater AREC, Holland, VA, 2022 harvest.

Line	Grain Yield (Bu/a)	Test Weight (Lb/bu)
SY 576	59.4	56.4
SY 007	59.4	57.7
17VTK19-15	59.2	58.4
GA 111055-19LE12	58.9	58.8
USG 3118	58.8	58.9
VA19MAS7-519-1WS-R110	58.4	58.8
Dyna-Gro WX20738	58.4	57.3
GA 121012-19LE8	58.1	57.9
Dyna-Gro 9002	58.0	57.9
Vision 45	57.9	58.3
Dyna-Gro Laverne	57.8	57.6
17VDH-SRW03-143	57.7	59.8 +
17VDH-SRW01-077	57.2	59.2 +
Featherstone 125	57.1	60.4 +
SH 7200	55.9	58.9
VA18HRW-96	55.9	57.5
VA19FHB-22	55.9	58.2
VA18HRW-57	55.6	56.2 -
FL16045LDH-25	55.5	59.8 +
17VDH-SRW05-052	54.9	58.0
VA18HRW-58	54.8	58.5
14VDH-SRW14-150	54.7	57.6
VA19FHB-05	54.5	58.0
VA19W-43	53.9	57.9
Liberty 5658	52.7	57.7
15VDH-FHB-MAS38-01	52.4	56.3 -
Hardy 2519	50.6	59.0
Dyna-Gro Shirley	47.9 -	56.6
VA20W-142	47.7 -	57.8
Progeny #Chad	47.2 -	56.7
NC15V25-20	45.7 -	59.0
FL15105-LDH039	45.3 -	58.2
NC13955-G125	45.2 -	56.6
MAS # 189	43.9 -	57.9
MASSEY	43.8 -	58.4
MAS # 134	43.5 -	58.8
VA20W-69	42.6 -	57.7

Table 16. Summary of performance of entries in the Virginia Tech Wheat Test, planted No-Till at Tidewater AREC, Holland, VA, 2022 harvest.

Line	Grain Yield (Bu/a)	Test Weight (Lb/bu)
Pioneer 26R59	40.5 -	57.1
HR 5210	38.9 -	53.0 -
15VDH-HRW15-062	38.4 -	54.1 -
GA 151313-LDH224-19E38	36.9 -	58.5
VA17W-75	36.6 -	56.7
VA19W-31	36.5 -	56.5
NC18-16913	34.8 -	58.8
DH16-SRW120-064	33.3 -	56.1 -
MAS #106	32.5 -	57.8
15VDH-FHB-MAS33-13	**	**
16VDH-SRW03-023	**	**
17VTK6-61	**	**
17VTK4-29	**	**
18VDH-FHB-MAS07-164-01	**	**
18VDH-FHB-MAS07-164-08	**	**
16VDH-FHB-MAS60-7-03	**	**
SY 547	**	**
SY Viper	**	**
MAS #67	**	**
Pioneer 26R45	**	**
SY 100	**	**
SY Richie	**	**
AgriMAXX 503	**	**
CPX91221	**	**
Revere 2148	**	**
MAS #2	**	**
USG 3451	**	**
Featherstone 3000	**	**
GP 381	**	**
GP 348	**	**
GP 463	**	**
CP8118	**	**
Dyna-Gro 9352	**	**
KWS394	**	**
KWS398	**	**

Table 16. Summary of performance of entries in the Virginia Tech Wheat Test, planted No-Till at Tidewater AREC, Holland, VA, 2022 harvest.

Line	Grain Yield (Bu/a)	Test Weight (Lb/bu)
KWS405	**	**
KWS415	**	**
MBX 2261	**	**
Progeny 20-2	**	**
FL16009LDH-16	**	**
USG 3563	**	**
USG 3661	**	**
Average	60.3	57.6
LSD (0.05)	10.7	1.3
C.V.	12.1	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.

****:** Deer feeding at this site was extensive. Data for severely damaged lines not reported.

Table 17. Summary of performance of entries in the Virginia Tech Wheat Test, Northern Piedmont Center, Orange, VA, 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
USG 3352	--	--	109.0 +	55.4
KWS415	--	--	105.5 +	53.3 -
Dyna-Gro WX22741	--	--	103.1 +	55.1 -
Pioneer 26R36	--	93.9	101.2 +	54.5 -
Dyna-Gro WX21793	--	--	100.4 +	54.5 -
USG 3661	--	--	99.6 +	56.1
Dyna-Gro 9393	--	--	99.5 +	54.1 -
VA20FHB-20	--	--	99.0 +	56.1
USG 3472	--	99.1 +	98.4 +	55.9
Progeny 19-12	--	--	97.9 +	55.1 -
CPX91221	--	90.4	97.8 +	54.3 -
15VDH-FHB-MAS33-13	83.6	86.9	97.6 +	54.8 -
Dyna-Gro Laverne	75.8	92.0	96.7 +	53.4 -
KWS394	--	--	96.1 +	55.0 -
USG 3783	--	--	95.6 +	56.4
SH 4222	--	--	95.5 +	56.4
MAS #143	92.4	90.0	95.3 +	54.7 -
Dyna-Gro Shirley	83.9	98.0 +	95.3 +	52.9 -
USG 3463	--	--	95.1 +	55.4
Progeny 20-2	--	--	95.0 +	55.8
Dyna-Gro WX21741	--	92.0	94.8 +	55.7
NC15V25-20	--	--	94.8 +	55.7
USG 3563	--	--	94.6 +	54.4 -
MAS # 133 PS+	--	--	94.4 +	56.3
Dyna-Gro WX20738	--	91.5	94.2 +	57.4
AgriMAXX EXP 2105	--	--	94.2 +	55.7
MAS #86	88.4	97.1	94.1 +	56.5
CP8045	--	91.8	93.9 +	54.7 -
Dyna-Gro 9172	94.3 +	94.6	93.5 +	57.1
Featherstone 3000	--	93.4	93.4 +	56.2
VA19FHB-36	--	--	93.4 +	56.7
USG 3363	--	--	93.1	54.5 -
Pioneer 26R45	84.8	90.2	93.1	55.9
Revere 2148	--	78.8	93.0	54.7 -
KWS414	--	--	92.4	56.4

Table 17. Summary of performance of entries in the Virginia Tech Wheat Test, Northern Piedmont Center, Orange, VA, 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
MBX 176	88.5	88.0	92.4	54.5 -
SH 9520	--	92.5	92.4	55.2
17VDH-SRW05-169	--	--	92.3	56.1
VA19FHB-05	--	98.5 +	92.3	57.1
17VTK4-29	--	--	92.2	54.8 -
Revere 2277	--	--	92.1	54.1 -
NC18-16913	--	--	91.8	53.4 -
Featherstone 125	87.3	88.4	91.2	54.8 -
MAS # 86 PS+	--	--	91.1	53.9 -
SH 7222 (13VTK429-3)	89.0	93.4	90.5	52.9 -
Vision 45	--	--	89.9	55.6
16VDH-SRW03-018	--	88.5	89.6	53.9 -
Dyna-Gro 9002	77.2	93.2	89.5	56.8
MAS #316 PS+	--	--	89.4	56.3
VA19W-02	--	--	89.3	56.3
AgriMAXX 513	--	88.9	89.3	56.7
AgriMAXX 516	--	91.5	89.3	54.6 -
VA17W-75	72.7	85.6	89.2	55.5
FS 597	--	--	89.1	55.5
VA18HRW-57	--	--	88.7	54.1 -
MAS #155	--	--	88.6	54.4 -
17VDH-SRW01-077	--	--	88.5	56.8
AgriMAXX 503	72.3	79.2	88.3	54.8 -
USG 3118	80.4	91.3	88.2	55.3
KWS398	--	--	88.1	53.7 -
VA19W-29	--	95.0	87.9	56.1
USG 3451	--	83.7	87.7	54.8 -
15VDH-FHB-MAS31-30	--	--	87.1	54.3 -
SY Viper	90.0	91.8	87.1	55.7
MBX 127	89.0	86.8	87.0	55.2
Dyna-Gro 9120	92.6	92.5	86.9	55.1 -
NC13211-9	--	--	86.6	56.1
SY 576	93.6	85.0	86.5	56.1
AgriMAXX 502	88.2	89.7	86.5	57.1
CP8118	--	--	86.3	55.0 -

Table 17. Summary of performance of entries in the Virginia Tech Wheat Test, Northern Piedmont Center, Orange, VA, 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
AgriMAXX 505	83.0	89.5	86.1	56.5
15VTK-1-101	--	93.2	85.9	56.7
DH16-SRW120-064	--	86.8	85.8	56.3
Revere 2266	--	--	85.7	55.0 -
Pioneer 26R59	73.4	82.3	84.7	56.3
DH17SRW136-066	--	--	84.6	54.9 -
KWS405	--	--	84.6	54.4 -
Revere 2169	86.4	81.2	84.5	55.2
17VDH-SRW05-052	--	--	84.5	55.8
18VDH-FHB-MAS07-164-01	--	--	84.3	54.9 -
MAS1407-056-6-3	90.2	91.3	84.2	56.1
MAS # 316	88.4	85.5	83.8	55.4
MBX 223	83.3	80.9	83.6	54.5 -
VA19W-24	--	80.9	83.5	54.6 -
MAS # 134	--	--	83.3	54.9 -
Progeny #Bullet	88.3	84.8	83.2	56.6
Progeny #Buster	83.1	83.3	83.1	56.9
Dyna-Gro 9352	--	--	83.0	55.5
15VDH-FHB-MAS25-15	79.9	84.5	82.7	55.2
FS 875	--	88.4	82.7	56.4
18VDH-FHB-MAS07-164-08	--	--	82.5	54.6 -
16VDH-FHB-MAS60-7-03	--	--	82.1	55.8
VA20W-142	--	--	82.1	54.2 -
VA19MAS7-519-1WS-R110	--	--	82.0	53.3 -
AgriMAXX 514		85.8	81.7	55.5
Dyna-Gro 9151	82.7	86.2	80.9	56.6
17VTK19-15	--	--	80.4	56.5
VA20W-171	--	--	80.1	54.9 -
15VDH-FHB-MAS38-01	67.3	86.5	80.0	53.8 -
Liberty 5658	78.3	84.1	80.0	57.5 +
MAS #139	--	80.5	79.6	57.0
16VTK19-201	--	85.8	79.4	56.4
GP 463	--	--	79.3	56.6
SY 100	80.0	80.0	79.3	55.7
SY Richie	76.4	84.9	79.1	53.7 -
AgriMAXX EXP 2110	--	--	79.1	55.0 -

Table 17. Summary of performance of entries in the Virginia Tech Wheat Test, Northern Piedmont Center, Orange, VA, 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
MBX 2261	--	--	79.0	56.1
FS 745	--	--	79.0	53.1 -
HILLIARD	72.6	81.4	78.8	55.0 -
AgriMAXX EXP 2222	--	--	78.7	55.0 -
SY 007	73.4	79.4	78.3	55.3
14VDH-SRW14-150	76.5	81.0	78.2	56.8
GA 11052-19LE15	--	--	78.0	55.8
FS 743	--	--	78.0	54.9 -
VA18HRW-96	--	--	76.9	56.9
17VDH-SRW03-143	--	82.5	76.6	55.9
15VDH-HRW15-062	--	--	76.5	54.3 -
GA 151313-LDH224-19E38	--	--	76.4	56.3
MAS #67	57.2 -	76.0	76.3	55.3
17VTK6-61	--	--	75.6 -	54.0 -
16VDH-SRW03-023	69.4	84.4	75.6 -	56.6
MAS #133	73.2	76.8	75.5 -	54.7 -
VA19W-43	--	--	74.5 -	55.3
16VDH-SRW09-025	74.6	82.3	73.8 -	56.1
FL16009LDH-16	--	--	73.3 -	57.0
VA19W-31	--	72.2 -	73.1 -	55.2
HR 5210	--	--	73.0 -	57.1
MAS #106	--	--	72.7 -	54.4 -
VA19FHB-22	--	--	72.5 -	55.9
VA18HRW-58	--	--	72.4 -	56.0
GP 381	--	--	72.1 -	56.4
GA 121012-19LE8	--	--	71.5 -	55.3
NC11546-14	57.0 -	67.8 -	71.4 -	55.0 -
VA20W-69	--	--	70.9 -	56.1
MAS #2	--	76.4	70.9 -	55.8
18VDH-FHB-MAS06-152-03	--	--	70.1 -	56.4
GA 111055-19LE12	--	--	70.1 -	56.7
MASSEY	56.6 -	72.9 -	70.1 -	54.5 -
GP 348	--	--	70.0 -	54.2 -

Table 17. Summary of performance of entries in the Virginia Tech Wheat Test, Northern Piedmont Center, Orange, VA, 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
FL15105-LDH039	--	--	68.8 -	55.8
FL16045LDH-25	--	--	68.0 -	53.2 -
MAS # 189	--	--	67.9 -	54.6 -
FS 891	--	74.0	67.7 -	55.6
SY 547	76.7	73.7	67.1 -	56.4
Progeny #Chad	65.2	76.3	66.0 -	54.3 -
SH 7200	65.0	71.8 -	63.5 -	55.7
NC13955-G125	--	--	60.3 -	57.1
Hardy 2519	--	68.9 -	56.7 -	56.1
Average	79.6	86	84.6	56.4
LSD (0.05)	14.6	12.3	8.5	1.2
C.V.	21.0	13.5	14.1	1.5

Released cultivars are shown in bold print.

Varieties are ordered by descending one-year yield averages.

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

Table 18. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Shore AREC, Painter, VA 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
SH 7222 (13VTK429-3)	77.8	57.0	59.9 +	60.6 +
VA19W-24	--	48.7	55.9 +	59.7 +
15VDH-FHB-MAS25-15	77.6	52.1	54.5 +	60.1 +
KWS398	--	--	53.4 +	56.8
16VDH-SRW03-023	75.6	55.1	52.1	58.3
GA 111055-19LE12	--	--	52.0	59.2 +
15VDH-FHB-MAS33-13	74.9	56.4	51.9	58.9 +
VA18HRW-57	--	--	51.8	56.6
Featherstone 125	67.6	46.4	51.7	60.7 +
NC11546-14	59.8	43.7	51.7	60.4 +
VA19W-02	--	--	51.6	59.9 +
VA20FHB-20	--	--	51.5	60.7 +
VA20W-142	--	--	51.1	58.1
Progeny #Buster	82.4	60.8	50.9	58.1
16VDH-SRW03-018	--	58.4	50.9	60.0 +
16VTK19-201	--	53.4	50.6	60.9 +
17VDH-SRW01-077	--	--	50.4	60.0 +
16VDH-SRW09-025	75.2	58.1	50.3	58.7 +
USG 3783	--	--	49.9	56.4
VA18HRW-96	--	--	49.7	57.3
Dyna-Gro 9393	--	--	49.3	56.2
KWS415	--	--	49.3	56.4
MAS # 134	--	--	49.1	58.6
AgriMAXX 513	--	51.0	48.8	57.9
DH16-SRW120-064	--	52.6	48.7	60.2 +
SH 9520	--	53.5	48.7	57.9
VA19FHB-22	--	--	48.7	60.1 +
17VDH-SRW03-143	--	55.6	48.6	61.1 +
17VTK19-15	--	--	48.4	57.9
USG 3352	--	--	48.3	55.6 -
AgriMAXX EXP 2105	--	--	48.0	56.1 -
Progeny #Bullet	72.1	51.4	48.0	57.4
VA19FHB-36	--	--	47.8	59.3 +
17VDH-SRW05-052	--	--	47.6	59.2 +
Dyna-Gro WX21741	--	55.5	47.5	55.8 -

Table 18. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Shore AREC, Painter, VA 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
17VDH-SRW05-169	--	--	47.5	59.0 +
VA19MAS7-519-1WS-R110	--	--	47.5	59.5 +
GA 151313-LDH224-19E38	--	--	47.3	58.5
MAS1407-056-6-3	75.8	51.0	47.2	59.3 +
MAS # 86 PS+	--	--	47.1	55.8 -
VA17W-75	79.5	61.4	47.1	60.5 +
AgriMAXX 514	--	61.4	47.0	54.8 -
HILLIARD	72.1	56.8	47.0	58.2
Dyna-Gro 9120	74.5	54.1	46.9	59.8 +
VA20W-69	--	--	46.8	58.6
AgriMAXX 516	--	54.4	46.6	54.8 -
15VDH-FHB-MAS31-30	--	--	46.5	59.7 +
USG 3463	--	--	46.5	56.3
AgriMAXX 502	75.2	55.8	46.4	55.1 -
MAS # 133 PS+	--	--	46.0	51.8 -
Dyna-Gro Laverne	69.7	53.3	45.9	58.0
SY 007	77.0	51.7	45.9	57.3
SH 4222	--	--	45.8	55.6 -
Revere 2277	--	--	45.7	57.3
Featherstone 3000	--	62.3	45.7	56.3
15VTK-1-101	--	56.2	45.7	57.8
14VDH-SRW14-150	81.8	60.4	45.5	58.6
VA19W-29	--	60.4	45.5	58.8 +
VA19FHB-05	--	48.5	45.4	58.7 +
MAS #155	--	--	45.1	55.1 -
NC13211-9	--	--	45.1	59.7 +
MAS #86	75.5	52.3	45.0	54.6 -
GA 121012-19LE8	--	--	44.9	56.7
USG 3118	74.6	54.0	44.7	60.7 +
GA 11052-19LE15	--	--	44.6	58.5
Vision 45	--	--	44.6	57.2
Dyna-Gro 9172	82.2	54.1	44.5	54.3 -
USG 3363	--	--	44.5	56.1 -
Progeny 20-2	--	--	44.4	59.4 +
Pioneer 26R45	65.2	43.2	44.3	55.2 -

Table 18. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Shore AREC, Painter, VA 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
VA19W-43	--	--	44.3	59.0 +
Dyna-Gro Shirley	78.0	54.7	44.3	56.9
FS 597	--	--	44.2	57.4
FS 743	--	--	44.1	55.9 -
MAS #2	--	48.4	44.0	58.4
CP8045	--	57.2	43.6	54.8 -
18VDH-FHB-MAS06-152-03	--	--	43.5	60.4 +
MBX 2261	--	--	43.4	55.9 -
USG 3563	--	--	43.4	56.1 -
AgriMAXX EXP 2222	--	--	43.2	56.9
VA18HRW-58	--	--	43.2	57.7
CPX91221	--	63.5	42.8	57.3
USG 3661	--	--	42.8	58.4
DH17SRW136-066	--	--	42.8	56.4
Dyna-Gro WX20738	--	56.7	42.8	58.1
17VTK4-29	--	--	42.7	57.5
MBX 127	78.1	54.3	42.6	55.0 -
Revere 2266	--	--	42.6	52.6 -
Progeny #Chad	76.3	50.1	42.5	58.1
AgriMAXX EXP 2110	--	--	42.4	56.6
KWS414	--	--	42.2	53.9 -
GP 381	--	--	42.1	53.8 -
VA20W-171	--	--	42.1	57.4
Dyna-Gro WX21793	--	--	41.9	55.7 -
USG 3472	--	52.9	41.8	53.5 -
SY 100	55.8	55.8	41.8	52.5 -
Pioneer 26R36	--	56.6	41.8	57.5
FS 745	--	--	41.6	53.6 -
Dyna-Gro WX22741	--	--	41.5	51.7 -
Dyna-Gro 9352	--	--	41.5	55.0 -
MAS #316 PS+	--	--	41.4	55.5 -
MAS # 189	--	--	41.4	61.2 +
15VDH-HRW15-062	--	--	41.4	57.2
FL16045LDH-25	--	--	41.3	61.9 +
SY Viper	67.5	53.4	41.3	58.5
16VDH-FHB-MAS60-7-03	--	--	41.3	58.8 +

Table 18. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Shore AREC, Painter, VA 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
Dyna-Gro 9002	71.8	52.2	41.2	55.2 -
HR 5210	--	--	41.2	54.7 -
KWS394	--	--	41.2	52.5 -
SY 576	71.5	51.4	41.1	56.2
Progeny 19-12	--	--	41.1	54.5 -
AgriMAXX 505	65.0	43.4	41.0	56.8
MBX 176	66.9	48.8	40.8	54.4 -
NC15V25-20	--	--	40.6	57.4
MAS #67	71.3	55.1	40.6	56.3
FL16009LDH-16	--	--	40.5	57.2
FS 875	--	50.4	40.5	54.7 -
MAS #143	80.3	53.5	40.3	53.6 -
FL15105-LDH039	--	--	40.2	60.2 +
Liberty 5658	70.1	59.7	40.0	58.7 +
AgriMAXX 503	70.0	43.9	40.0	57.1
Pioneer 26R59	79.1	62.2	39.8	56.4
MAS #139	--	65.2	39.8	54.3 -
Revere 2148	--	39.2	39.8	56.9
KWS405	--	--	39.5	56.5
Revere 2169	86.2	67.8	39.2	52.8 -
17VTK6-61	--	--	38.9	61.7 +
MBX 223	75.7	56.1	38.6	54.9 -
SH 7200	64.3	50.3	38.5	60.2 +
Dyna-Gro 9151	72.1	54.7	38.3	57.4
MAS #133	75.6	52.0	38.1	51.9 -
NC18-16913	--	--	37.6	60.1 +
GP 463	--	--	37.2	54.9 -
CP8118	--	--	37.1	57.8
15VDH-FHB-MAS38-01	85.1	71.6	37.0	58.0
NC13955-G125	--	--	36.9	56.8
18VDH-FHB-MAS07-164-01	--	--	36.7	61.3 +
MAS # 316	72.5	56.2	36.3	55.2 -

Table 18. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern Shore AREC, Painter, VA 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
USG 3451	--	56.8	36.0	60.8 +
MASSEY	54.6	48.6	34.6 -	57.9
SY Richie	68.1	51.8	34.1 -	58.4
SY 547	76.2	50.2	34.0 -	57.4
FS 891	--	55.6	33.8 -	55.8 -
18VDH-FHB-MAS07-164-08	--	--	33.2 -	60.6 +
VA19W-31	--	58.2	32.3 -	58.0
MAS #106	--	--	32.2 -	57.5
GP 348	--	--	27.2 -	61.3 +
Hardy 2519	--	44.9	23.3 -	57.0
Average	73.8	54.2	43.8	57.3
LSD (0.05)	23.3	10.3	8.5	1.2
C.V.	30.4	12.7	13.7	1.5

Released cultivars are shown in bold print.

Varieties are ordered by descending one-year yield averages.

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

Table 19. Summary of performance of entries in the Virginia Tech Wheat Test, planted No-Till in the Shenandoah Valley, 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
MAS # 86 PS+	--	--	92.0 +	57.1 -
MAS # 134	--	--	86.5 +	58.4
KWS398	--	--	85.3 +	56.5 -
Dyna-Gro WX21793	--	--	85.0 +	58.1
Revere 2277	--	--	83.8 +	58.7
17VTK4-29	--	--	81.7	58.2
AgriMAXX EXP 2222	--	--	81.6	59.5 +
USG 3363	--	--	81.5	58.2
Dyna-Gro WX21741	--	92.3	81.4	58.5
MAS #86	92.7	96.4	81.2	57.1 -
Dyna-Gro WX22741	--	--	81.2	55.9 -
USG 3783	--	--	81.1	58.4
AgriMAXX 503	91.4	88.8	80.4	58.5
MAS #155	--	--	80.4	57.3
SH 4222	--	--	80.4	58.3
KWS415	--	--	80.3	54.6 -
VA19FHB-36	--	--	80.3	59.1
AgriMAXX EXP 2110	--	--	80.2	58.1
MAS1407-056-6-3	88.7	96.4	80.0	58.9
SH 7222 (13VTK429-3)	94.2	96.0	79.9	59.8 +
Dyna-Gro 9151	94.3	98.9	79.8	59.3 +
USG 3352	--	--	79.7	57.5
NC15V25-20	--	--	79.5	59.5 +
SY 547	89.4	90.5	79.5	58.0
USG 3563	--	--	79.2	57.9
FS 743	--	--	79.1	58.6
KWS394	--	--	79.1	56.8 -
Progeny 20-2	--	--	79.0	59.7 +
Dyna-Gro 9393	--	--	78.9	58.4
MAS #133	99.1	101.0	78.9	56.3 -
Progeny #Bullet	89.9	94.2	78.8	57.8
MAS # 133 PS+	--	--	78.7	55.8 -
AgriMAXX 514	--	96.0	78.5	58.1
USG 3463	--	--	78.3	57.8
VA19W-02	--	--	78.1	57.4

Table 19. Summary of performance of entries in the Virginia Tech Wheat Test, planted No-Till in the Shenandoah Valley, 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
Progeny #Chad	84.3	88.3	77.9	56.4 -
VA19W-29	--	95.6	77.6	58.4
GP 463	--	--	77.3	56.4 -
MAS #2	--	88.7	77.2	59.3 +
GA 151313-LDH224-19E38	--	--	77.0	59.5 +
KWS405	--	--	76.9	59.4 +
FS 875	--	92.2	76.8	57.9
USG 3451	--	99.4	76.7	58.9
Dyna-Gro 9352	--	--	76.1	57.6
CPX91221	--	94.3	76.1	58.6
CP8045	--	95.7	76.1	58.0
Progeny #Buster	86.8	90.0	75.9	58.9
MAS #139	--	92.9	75.9	57.7
VA20W-142	--	--	75.8	58.5
15VDH-FHB-MAS33-13	90.3	89.6	75.5	59.0
SY Viper	93.7	96.3	75.0	59.3 +
Pioneer 26R45	87.9	92.1	74.9	57.3
GA 11052-19LE15	--	--	74.9	59.5 +
KWS414	--	--	74.5	55.9 -
MBX 2261	--	--	74.5	58.1
AgriMAXX 516	--	92.8	74.5	57.8
Revere 2148	--	94.7	74.5	58.1
USG 3472	--	97.4	74.2	58.1
16VDH-SRW03-023	93.1	93.6	74.2	58.2
FS 597	--	--	74.2	58.7
Dyna-Gro 9002	86.8	90.0	74.1	57.4
DH17SRW136-066	--	--	74.1	57.3
Dyna-Gro WX20738	--	92.0	74.1	58.5
Revere 2169	91.7	93.8	74.0	58.2
SY 576	89.8	92.5	74.0	57.8
MAS # 316	88.6	91.2	73.9	57.7
MAS #316 PS+	--	--	73.8	57.3
15VDH-FHB-MAS25-15	88.1	93.0	73.8	59.7 +
HILLIARD	93.6	96.3	73.7	57.5

Table 19. Summary of performance of entries in the Virginia Tech Wheat Test, planted No-Till in the Shenandoah Valley, 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
Progeny 19-12	--	--	73.6	58.0
18VDH-FHB-MAS07-164-01	--	--	73.5	58.8
Dyna-Gro Laverne	87.8	93.5	73.4	58.5
Pioneer 26R59	87.3	92.7	73.3	57.6
AgriMAXX 513	--	93.6	73.2	58.7
SH 9520	--	87.9	73.1	58.2
FS 891	--	92.4	73.1	58.8
CP8118	--	--	73.1	56.3 -
MBX 176	83.9	86.5	73.0	57.7
17VTK6-61	--	--	73.0	59.8 +
Dyna-Gro 9172	96.3	98.3	72.7	58.0
15VDH-FHB-MAS31-30	--	--	72.6	60.2 +
15VDH-FHB-MAS38-01	86.5	85.3	72.6	56.9 -
17VDH-SRW03-143	--	88.2	72.5	58.9
VA19FHB-22	--	--	72.5	59.2 +
AgriMAXX 505	90.8	94.8	72.4	58.9
Featherstone 3000	--	98.9	72.4	58.8
FL16045LDH-25	--	--	72.3	60.8 +
Dyna-Gro Shirley	81.5	87.554	72.2	56.2 -
Featherstone 125	87.9	91.0	71.9	59.9 +
VA19W-24	--	85.6	71.7	58.2
NC18-16913	--	--	71.4	58.7
VA19MAS7-519-1WS-R110	--	--	71.4	59.0
VA20W-69	--	--	71.3	57.4
MAS # 189	--	--	71.2	58.4
USG 3661	--	--	71.1	58.6
MBX 223	84.6	84.1	71.1	57.7
AgriMAXX 502	87.7	90.8	70.9	57.5
VA18HRW-57	--	--	70.8	57.7
MBX 127	94.4	92.8	70.8	58.3
16VDH-FHB-MAS60-7-03	--	--	70.8	59.0
18VDH-FHB-MAS07-164-08	--	--	70.8	58.6
18VDH-FHB-MAS06-152-03	--	--	70.4	58.8
VA19FHB-05	--	91.1	70.1	58.3
MASSEY	77.7	79.9	69.8	59.7 +
VA20FHB-20	--	--	69.8	59.8 +
AgriMAXX EXP 2105	--	--	69.8	57.8

Table 19. Summary of performance of entries in the Virginia Tech Wheat Test, planted No-Till in the Shenandoah Valley, 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
Pioneer 26R36	--	87.0	69.7	58.7
VA20W-171	--	--	69.6	56.2 -
15VTK-1-101	--	85.3	69.4	57.5
DH16-SRW120-064	--	92.7	69.3	59.2 +
SY 100	85.1	85.1	69.3	55.6 -
Vision 45	--	--	69.0	58.8
16VDH-SRW03-018	--	88.2	68.9	60.3 +
Revere 2266	--	--	68.5	56.8 -
14VDH-SRW14-150	84.5	86.7	68.5	57.3
VA19W-43	--	--	68.0	58.8
FL15105-LDH039	--	--	67.9	61.0 +
SY Richie	87.3	88.8	67.9	56.4 -
NC13955-G125	--	--	67.8	58.0
17VTK19-15	--	--	67.8	58.7
MAS #143	99.2	94.2	67.6	57.9
NC11546-14	76.5	78.7	67.3	60.2 +
GA 121012-19LE8	--	--	67.2	58.7
17VDH-SRW05-052	--	--	67.1	58.5
Liberty 5658	87.3	86.0	67.0	58.8
16VDH-SRW09-025	85.4	88.1	66.8	57.9
FS 745	--	--	66.7	58.3
17VDH-SRW01-077	--	--	66.7	59.5 +
16VTK19-201	--	87.8	66.2	60.2 +
VA17W-75	87.6	85.6	66.0	58.8
HR 5210	--	--	65.8	56.3 -
VA18HRW-96	--	--	65.4	57.6
SH 7200	82.0	85.4	65.3	58.4
VA18HRW-58	--	--	65.2	59.3 +
15VDH-HRW15-062	--	--	64.7	57.6
Dyna-Gro 9120	79.0	82.1	63.7	59.1
NC13211-9	--	--	63.5	59.9 +

Table 19. Summary of performance of entries in the Virginia Tech Wheat Test, planted No-Till in the Shenandoah Valley, 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)
USG 3118	81.9	82.5	63.4	58.7
GP 381	--	--	63.4	55.4 -
SY 007	88.8	88.2	63.3	57.6
GA 111055-19LE12	--	--	63.2	58.4
17VDH-SRW05-169	--	--	62.2 -	57.4
GP 348	--	--	61.9 -	58.8
VA19W-31	--	75.9	61.6 -	58.3
MAS #106	--	--	61.3 -	56.5 -
FL16009LDH-16	--	--	60.6 -	55.9 -
MAS #67	85.6	84.6	60.3 -	56.5 -
Hardy 2519	--	61.7 -	36.3 -	58.1
Average	88.2	90.3	72.9	58.2
LSD (0.05)	15.4	21.9	10.0	0.9
C.V.	21.2	24.2	9.8	1.7

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.

Table 20. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern VA AREC in Warsaw, VA, 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Powdery Mildew (0-9)
GP 348	--	--	106.0 +	61.2 +	112 -	32	0.8
15VDH-FHB-MAS38-01	113.5 +	108.3 +	104.6 +	58.5	113 -	30 -	1.5
17VTK4-29	--	--	103.8 +	58.3	117	32	1.8
Progeny #Chad	112.9 +	105.5 +	103.4 +	58.5	116 -	30 -	1.8
VA19W-43	--	--	102.9 +	60.6 +	115 -	31	1.5
VA17W-75	112.2 +	106.5 +	102.0 +	60.4 +	115 -	32	1.0
DH17SRW136-066	--	--	100.1 +	57.6 -	119	33	0.0 -
KWS394	--	--	99.8 +	56.4 -	122 +	32	0.8
CP8118	--	--	99.8 +	58.2	116 -	30 -	1.3
Pioneer 26R59	105.4	97.9	99.7 +	58.5	120 +	30 -	1.3
DH16-SRW120-064	--	99.8	98.9 +	60.4 +	119	31	2.0
15VTK-1-101	--	100.5 +	98.8 +	58.8	118	30 -	2.0
17VDH-SRW05-169	--	--	98.5 +	57.7	115 -	30 -	0.8
Dyna-Gro Shirley	105.7	96.2	98.4 +	57.7	122 +	33	1.0
17VDH-SRW05-052	--	--	97.6 +	58.8	115 -	30 -	1.8
Dyna-Gro Laverne	101.8	95.7	96.7 +	58.8	116 -	30 -	1.8
GA 11052-19LE15	--	--	96.6 +	58.9	116 -	33	2.3
SH 7222 (13VTK429-3)	101.3	95.0	96.3 +	60.2 +	117	34	1.8
Progeny 20-2	--	--	95.8 +	60.8 +	120 +	34	2.8
SY 007	99.2	92.1	95.4 +	58.1	115 -	33	1.0
MBX 2261	--	--	95.4 +	57.3 -	120 +	33	3.0
KWS414	--	--	94.6 +	56.6 -	123 +	33	1.5
16VDH-FHB-MAS60-7-03	--	--	94.5 +	59.4 +	117	32	0.5 -
18VDH-FHB-MAS07-164-01	--	--	94.4 +	58.8	115 -	33	2.3
Revere 2266	--	--	94.1 +	56.7 -	121 +	32	2.0
Revere 2277	--	--	93.5 +	59.6 +	123 +	33	2.0
SY Viper	99.4	91.9	93.3 +	59.4 +	117	35	2.3
MAS #155	--	--	93.2 +	58.7	120 +	34	2.0
17VDH-SRW01-077	--	--	93.2 +	59.9 +	115 -	34	2.0
VA20FHB-20	--	--	93.1 +	60.6 +	116 -	33	2.0
GA 111055-19LE12	--	--	92.5 +	59.5 +	115 -	33	1.3
Dyna-Gro WX21793	--	--	92.4 +	58.6	121 +	34	1.8
15VDH-FHB-MAS25-15	104.3	93.2	92.4 +	59.0	115 -	31	2.0
USG 3118	100.8	93.6	92.4 +	59.7 +	115 -	32	1.0
18VDH-FHB-MAS07-164-08	--	--	92.0 +	58.9	114 -	32	1.3

Table 20. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern VA AREC in Warsaw, VA, 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Powdery Mildew (0-9)
SY 547	101.0	95.7	92.0 +	58.9	119	36	1.8
VA20W-142	--	--	91.4	59.4 +	119	35	2.3
VA19FHB-36	--	--	91.3	59.5 +	117	35	2.0
USG 3451	--	99.2	91.0	59.5 +	116 -	31	2.5
SY 100	94.3	94.3	91.0	56.2 -	121 +	31	3.3
14VDH-SRW14-150	106.4	98.5	90.6	58.6	115 -	33	2.5
Dyna-Gro 9172	101.5	95.3	90.6	57.6 -	122 +	32	2.8
FS 745	--	--	90.5	57.8	121 +	32	2.8
16VTK19-201	--	95.0	90.4	59.1	116 -	34	3.3
Dyna-Gro WX21741	--	94.8	90.2	58.7	118	35	2.8
Dyna-Gro 9352	--	--	89.9	56.9 -	120 +	33	2.0
VA18HRW-96	--	--	89.5	59.1	122 +	35	2.0
GP 381	--	--	89.4	56.2 -	119	31	2.3
Vision 45	--	--	89.3	59.8 +	123 +	39 +	1.3
GA 151313-LDH224-19E38	--	--	88.8	60.0 +	120 +	33	2.5
Progeny #Bullet	98.5	89.9	88.7	58.8	122 +	34	1.0
NC18-16913	--	--	88.7	59.0	117	35	0.5 -
MAS # 134	--	--	88.6	58.1	120 +	31	2.0
FL16045LDH-25	--	--	88.6	61.0 +	116 -	34	0.8
GP 463	--	--	88.6	57.1 -	118	32	2.5
AgriMAXX EXP 2222	--	--	88.4	58.8	120 +	32	2.0
CP8045	--	96.0	88.4	57.7	121 +	33	3.3
USG 3463	--	--	88.3	57.5 -	118	33	3.0
SH 4222	--	--	88.2	58.7	119	34	2.0
Featherstone 125	100.3	88.9	88.2	59.7 +	116 -	33	3.5
MBX 176	97.7	89.0	88.2	58.1	120 +	33	3.5
USG 3472	--	94.6	88.1	58.1	121 +	32	2.5
VA18HRW-58	--	--	88.0	60.7 +	123 +	35	2.5
MBX 127	99.1	90.1	87.5	57.6 -	120 +	32	3.3
AgriMAXX EXP 2110	--	--	87.5	59.1	121 +	32	1.8
16VDH-SRW09-025	100.7	91.6	87.5	58.7	116 -	33	1.5
AgriMAXX 503	100.8	93.1	87.2	58.7	122 +	34	3.5
HILLIARD	102.3	95.8	87.1	58.4	116 -	34	2.8
NC11546-14	88.8	80.7 -	87.0	59.9 +	116 -	36	0.5 -
SH 9520	--	94.0	86.9	59.0	122 +	32	1.8

Table 20. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern VA AREC in Warsaw, VA, 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Powdery Mildew (0-9)
MAS #143	102.0	92.7	86.9	57.6 -	122 +	32	3.3
17VTK6-61	--	--	86.8	59.9 +	116 -	30 -	1.8
USG 3661	--	--	86.8	58.6	120 +	31	2.3
VA19W-02	--	--	86.8	58.4	116 -	33	2.5
Dyna-Gro 9393	--	--	86.8	58.7	121 +	32	2.0
Dyna-Gro 9151	98.0	88.3	86.7	59.3	122 +	34	2.8
HR 5210	--	--	86.4	57.1 -	122 +	31	1.8
KWS398	--	--	86.4	56.8 -	122 +	32	3.5
KWS415	--	--	86.3	56.5 -	123 +	33	2.8
MAS #86	99.0	91.9	86.2	57.1 -	121 +	35	2.0
15VDH-FHB-MAS31-30	--	--	86.1	60.0 +	119	32	2.8
USG 3352	--	--	85.8	59.0	123 +	34	1.8
Revere 2169	102.2	92.7	85.7	57.1 -	122 +	32	2.5
Pioneer 26R45	103.8	92.2	85.7	55.9 -	120 +	33	2.8
MBX 223	97.4	89.7	85.7	58.5	118	32	2.5
NC15V25-20	--	--	85.5	59.1	119	32	2.3
Progeny #Buster	100.1	88.9	85.3	59.5 +	119	34	2.3
FS 743	--	--	85.2	58.2	119	34	1.0
USG 3363	--	--	85.0	58.8	121 +	34	2.8
17VDH-SRW03-143	--	93.5	84.9	60.5 +	116 -	33	0.8
SH 7200	101.0	93.8	84.8	59.0	115 -	34	2.8
16VDH-SRW03-018	--	88.8	84.7	59.5 +	117	33	2.0
VA20W-171	--	--	84.6	57.3 -	115 -	33	2.5
FS 875	--	91.2	84.6	58.0	118	32	2.3
NC13211-9	--	--	84.5	58.9	119	33	1.3
USG 3783	--	--	84.5	58.2	122 +	32	2.8
AgriMAXX 514	--	92.1	84.4	56.9 -	120 +	33	2.3
SY Richie	95.6	87.2	84.0	57.4 -	114 -	32	2.8
MAS # 86 PS+	--	--	84.0	58.0	122 +	35	2.5
Featherstone 3000	--	94.9	84.0	59.2	123 +	33	2.0
Liberty 5658	97.0	90.3	83.9	59.8 +	117	34	2.0
AgriMAXX 516	--	89.8	83.7	57.4 -	122 +	32	1.5
MAS # 189	--	--	83.5	59.1	114 -	34	1.3
Dyna-Gro 9120	100.4	89.9	83.2	59.6 +	119	32	2.0
VA19W-29	--	87.3	83.1	58.8	116 -	33	2.3
VA18HRW-57	--	--	83.1	58.6	122 +	35	1.8

Table 20. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern VA AREC in Warsaw, VA, 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Powdery Mildew (0-9)
AgriMAXX EXP 2105	--	--	83.1	58.0	122 +	33	3.3
Revere 2148	--	86.9	83.0	58.7	122 +	34	2.8
NC13955-G125	--	--	82.9	58.5	116 -	34	1.8
AgriMAXX 505	94.3	84.5	82.7	59.0	120 +	33	3.0
AgriMAXX 513	--	89.3	82.6	59.2	119	32	3.5
17VTK19-15	--	--	82.6	59.3	118	34	2.3
Dyna-Gro WX22741	--	--	82.5	54.1 -	120 +	34	2.0
AgriMAXX 502	97.6	87.2	82.2	57.1 -	119	31	3.3
MAS # 133 PS+	--	--	82.1	55.7 -	122 +	32	2.3
GA 121012-19LE8	--	--	81.6	58.4	123 +	38 +	1.8
VA19W-24	--	86.4	81.0	59.5 +	120 +	31	1.8
16VDH-SRW03-023	102.5	90.1	80.7	58.1	118	33	4.3 +
FL15105-LDH039	--	--	80.4	60.6 +	115 -	34	2.5
15VDH-FHB-MAS33-13	102.6	90.6	79.9 -	57.7	119	31	2.8
VA19MAS7-519-1WS-R110	--	--	79.9 -	60.7 +	124 +	34	1.5
FL16009LDH-16	--	--	79.7 -	55.6 -	117	33	2.8
VA19FHB-05	--	90.9	79.7 -	58.8	116 -	32	3.0
MAS #139	--	86.2	79.4 -	56.9 -	122 +	32	4.0
MAS #67	89.7	84.5	78.5 -	56.3 -	119	32	3.8
MAS #133	92.6	82.5	78.2 -	56.3 -	120 +	32	2.0
Progeny 19-12	--	--	78.1 -	56.6 -	119	33	3.0
MASSEY	78.7 -	74.6 -	77.9 -	59.1	116 -	39 +	2.3
VA19W-31	--	84.2	77.9 -	58.0	116 -	32	2.0
KWS405	--	--	77.5 -	58.4	120 +	33	3.5
15VDH-HRW15-062	--	--	77.4 -	58.0	122 +	31	1.3
Dyna-Gro WX20738	--	80.6 -	76.8 -	57.5 -	116 -	32	3.3
MAS #2	--	78.6 -	76.2 -	59.1	122 +	39 +	2.5
FS 891	--	84.9	75.6 -	58.4	122 +	33	2.3
MAS # 316	94.0	84.7	74.6 -	58.3	121 +	35	3.0
CPX91221	--	91.8	73.5 -	60.3 +	123 +	32	3.5
VA20W-69	--	--	73.2 -	56.8 -	117	33	2.8

Table 20. Summary of performance of entries in the Virginia Tech Wheat Test, Eastern VA AREC in Warsaw, VA, 2022 harvest.

Line	3-year Av. Yield (Bu/a)	2-year Av. Yield (Bu/a)	Grain Yield (Bu/a)	Test Weight (Lb/bu)	Date Headed (Julian)	Mature Height (In)	Powdery Mildew (0-9)
USG 3563	--	--	73.0 -	58.4	123 +	34	3.8
FS 597	--	--	72.9 -	57.3 -	117	31	2.5
MAS #316 PS+	--	--	72.2 -	57.1 -	121 +	36	3.3
Dyna-Gro 9002	94.4	86.2	71.0 -	55.9 -	119	33	2.8
MAS1407-056-6-3	95.1	84.4	70.7 -	60.0 +	122 +	32	3.3
SY 576	85.0 -	72.7 -	70.2 -	58.5	125 +	34	2.3
VA19FHB-22	--	--	69.7 -	58.7	117	35	3.0
Pioneer 26R36	--	75.2 -	67.2 -	56.7 -	122 +	32	4.0
18VDH-FHB-MAS06-152-03	--	--	65.8 -	56.8 -	117	32	3.8
MAS #106	--	--	65.3 -	56.4 -	115 -	31	3.8
Hardy 2519	--	66.0 -	41.1 -	n/a	122 +	30 -	1.5
Average	99.4	90.4	86.3	58.4	119	33	2.2
LSD (0.05)	11.9	9.5	6.1	0.7	1.7	2	1.9
C.V.	14.8	10.6	5.1	0.9	1.0	3	--

Released cultivars are shown in bold print.

Varieties are ordered by descending one-year 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 lodging where 0 = highly resistant and 9 = highly susceptible.

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. In 2022, all wheat entries in Virginia's Official State Variety Trials were evaluated for FHB resistance in an inoculated, irrigated nursery at Eastern Virginia AREC. Data from this test for the current crop year and two- and three-year averages for FHB Index are included in the following tables in this bulletin to aid producers in 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 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 in a process called Marker-Assisted Selection (MAS). Released lines exhibiting excellent resistance to FHB include MAS#316, MAS#86, Revere 2958 and MBX 175.

In 2022, entries were inoculated by spreading scabby corn kernels (50g/4-rows) in plots at the booting stage. Overall, the wheat lines exhibited limited infection and distribution of FHB related traits in the misted nursery. Among 150 lines and varieties tested in 2022, the FHB index varied from 0.0 to 8.0 with Fusarium damaged kernels (FDK %) ranging from 10% to 85%. Eighty-six of the tested lines and varieties had FHB index values lower than the mean (<2.7) and expressed moderate resistant to FHB in 2021. Due to a lack of successful scab infection in 2020 and 2021, two-year and three-year mean data will not be presented in this publication.

Table 21. Summary of reaction of entries in the Virginia Tech Wheat Tests to Fusarium head blight (scab), 2022 harvest

Wheat Lines	FHB index (%)	FDK ¹ (%)	Date Headed (Julian)
SY Richie	8.0 +	50.0	116 -
FL16009LDH-16	8.0 +	57.5	118 -
18VDH-FHB-MAS07-164-08	7.5 +	50.0	116 -
GP 348	7.5 +	67.5 +	114 -
18VDH-FHB-MAS07-164-01	7.0 +	42.5	117 -
GA 111055-19LE12	7.0 +	72.5 +	124 +
HR 5210	7.0 +	85.0 +	124 +
SY Viper	6.5 +	35.0	118 -
VA19W-31	6.0 +	52.5	118 -
Dyna-Gro 9120	6.0 +	32.5	120
USG 3451	6.0 +	67.5 +	119 -
DH16-SRW120-064	5.5 +	67.5 +	120
VA20W-69	5.5 +	35.0	118 -
Dyna-Gro Shirley	5.5 +	50.0	123 +
SY 007	5.5 +	52.5	117 -
Featherstone 125	5.5 +	37.5	120
Progeny 20-2	5.5 +	25.0	121
VA19W-29	5.0	32.5	119 -
17VDH-SRW05-169	5.0	50.0	117 -
VA19W-02	5.0	37.5	119 -
VA19FHB-22	5.0	40.0	119 -
Pioneer 26R36	5.0	50.0	123 +
Dyna-Gro Laverne	5.0	42.5	117 -
CP8118	5.0	27.5	118 -
FL15105-LDH039	5.0	32.5	119 -
17VDH-SRW01-077	4.7	45.3	118 -
14VDH-SRW14-150	4.5	66+	118 -
16VDH-SRW03-018	4.5	45.0	119 -
17VTK6-61	4.5	27.5	118 -
SH 7200	4.5	55.0	117 -
USG 3118	4.5	37.5	117 -
Progeny #Buster	4.5	25.0	119 -
Dyna-Gro WX20738	4.5	40.0	119 -
USG 3661	4.5	60.0	122 +
15VDH-HRW15-062	4.5	80.0 +	124 +

Table 21. Summary of reaction of entries in the Virginia Tech Wheat Tests to Fusarium head blight (scab), 2022 harvest

Wheat Lines	FHB index (%)	FDK ¹ (%)	Date Headed (Julian)
MASSEY	4.0	30.0	118 -
HILLIARD	4.0	37.5	119 -
Liberty 5658	4.0	30.0	118 -
VA17W-75	4.0	25.0	117 -
15VTK-1-101	4.0	15.0	120
VA19W-24	4.0	45.0	121
17VDH-SRW03-143	4.0	45.0	119 -
VA19W-43	4.0	65.0	119 -
VA20W-171	4.0	25.0	118 -
17VTK4-29	4.0	27.5	119 -
18VDH-FHB-MAS06-152-03	4.0	47.5	119 -
16VDH-FHB-MAS60-7-03	4.0	25.0	119 -
Vision 45	4.0	62.5	124 +
Pioneer 26R59	4.0	40.0	121
SY 547	4.0	45.0	120
AgriMAXX 502	4.0	45.0	121
Dyna-Gro 9002	4.0	27.5	120
Progeny 19-12	4.0	45.0	122 +
Progeny #Chad	4.0	47.5	118 -
CP8045	4.0	25.0	123 +
MAS #139	4.0	62.5	123 +
USG 3000	4.0	17.5	123 +
FS 743	4.0	32.5	122 +
MAS #155	4.0	40.0	122 +
MAS # 170	4.0	52.5	122 +
FL16045LDH-25	4.0	30.0	121
VA18HRW-57	4.0	60.0	125 +
VA18HRW-58	4.0	55.0	125 +
MAS1407-056-6-3	3.5	30.0	124 +
16VDH-SRW03-023	3.5	30.0	120
16VDH-SRW09-025	3.5	27.5	119 -
VA19FHB-05	3.5	27.5	119 -
VA19FHB-36	3.5	30.0	119 -
VA20W-142	3.5	27.5	122 +

Table 21. Summary of reaction of entries in the Virginia Tech Wheat Tests to Fusarium head blight (scab), 2022 harvest

Wheat Lines	FHB index (%)	FDK ¹ (%)	Date Headed (Julian)
17VTK19-15	3.5	32.5	121
VA20FHB-20	3.5	45.0	119 -
17VDH-SRW05-052	3.5	27.5	117 -
SY 100	3.5	65.0	122 +
AgriMAXX 505	3.5	55.0	122 +
Dyna-Gro 9172	3.5	12.5	123 +
Dyna-Gro 9151	3.5	22.5	123 +
MBX 176	3.5	30.0	122 +
MAS #133	3.5	37.5	122 +
AgriMAXX 514	3.5	32.5	122 +
CPX91221	3.5	37.5	124 +
SH 9520	3.5	22.5	125 +
Hardy 2519	3.5	57.5	122 +
AgriMAXX EXP 2105	3.5	37.5	124 +
AgriMAXX EXP 2222	3.5	32.5	122 +
GP 381	3.5	42.5	120
Dyna-Gro 9393	3.5	35.0	123 +
Dyna-Gro WX21793	3.5	30.0	122 +
FS 597	3.5	40.0	119 -
KWS414	3.5	52.5	125 +
Revere 2266	3.5	42.5	123 +
MBX 2261	3.5	40.0	121
MAS # 165	3.5	47.5	123 +
SH 4222	3.5	32.5	116 -
GA 11052-19LE15	3.5	32.5	123 +
USG 3783	3.5	42.5	124 +
VA18HRW-96	3.5	55.0	124 +
13VTK429-3	3.0	17.5	120
15VDH-FHB-MAS25-15	3.0	40.0	118 -
15VDH-FHB-MAS33-13	3.0	15.0	121
16VTK19-201	3.0	30.0	117 -
DH17SRW136-066	3.0	55.0	121
VA19MAS7-519-1WS-R110	3.0	25.0	124 +
15VDH-FHB-MAS31-30	3.0	60.8	121 +
Pioneer 26R45	3.0	20.0	122 +
MAS #106	3.0	15.0	116 -
Revere 2169	3.0	12.5	123 +
NC11546-14	3.0	25.0	118 -
AgriMAXX 503	3.0	10.0	123 +
MBX 127	3.0	15.0	122 +

Table 21. Summary of reaction of entries in the Virginia Tech Wheat Tests to Fusarium head blight (scab), 2022 harvest

Wheat Lines	FHB index (%)	FDK ¹ (%)	Date Headed (Julian)
MBX 223	3.0	22.5	121
MAS #143	3.0	17.5	123 +
AgriMAXX 516	3.0	20.0	123 +
FS 891	3.0	20.0	123 +
MAS #2	3.0	37.5	124 +
USG 3472	3.0	17.5	123 +
GP 463	3.0	47.5	120
Dyna-Gro 9352	3.0	62.5	122 +
FS 745	3.0	12.5	123 +
Revere 2277	3.0	35.0	126 +
NC13211-9	3.0	32.5	121
SH 7222	3.0	32.5	122 +
GA 151313-LDH224-19E38	3.0	22.5	119 -
GA 121012-19LE8	3.0	57.5	119 -
USG 3352	3.0	45.0	124 +
USG 3563	3.0	30.0	120
15VDH-FHB-MAS38-01	2.5 -	11.5	115 -
Progeny Berkeley	2.5 -	27.5	--
Progeny #Bullet	2.5 -	25.0	123 +
MAS #316	2.5 -	10.0	123 +
AgriMAXX 513	2.5 -	35.0	121
Dyna-Gro WX21741	2.5 -	20.0	121
FS 875	2.5 -	32.5	121
AgriMAXX EXP 2110	2.5 -	35.0	124 +
KWS405	2.5 -	35.0	121
KWS415	2.5 -	30.0	124 +
NC13955-G125	2.5 -	50.0	119 -
NC18-16913	2.5 -	20.0	119 -
USG 3463	2.5 -	62.5	123 +
MAS #67	2.0 -	30.0	121
MAS #86	2.0 -	27.5	122 +
SY 576	2.0 -	55.0	127 +

Table 21. Summary of reaction of entries in the Virginia Tech Wheat Tests to Fusarium head blight (scab), 2022 harvest

Wheat Lines	FHB index (%)	FDK ¹ (%)	Date Headed (Julian)
Revere 2148	2.0 -	20.0	124 +
Dyna-Gro WX22741	2.0 -	35.0	122 +
MAS # 134	2.0 -	35.0	115 -
MAS # 166	2.0 -	20.0	123 +
MAS # 172	2.0 -	30.0	123 +
NC15V25-20	2.0 -	37.5	120
KWS398	1.5 -	27.5	124 +
KWS394	1.0 -	50.0	123 +
Average	3.8	37.4	121
LSD (0.05)	1.3	27.9	1
C.V.	17.0	37.7	1

Released cultivars are shown in bold print.

Varieties are ordered by descending FHB index averages.

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

The 0-9 ratings indicate a genotype's resistance to FHB where 0 = highly resistant and 9 = highly susceptible.

¹ FDK (%): Fusarium Damaged Kernels, visual assessment of the percent of infected kernels.

0 = highly resistant and 100 = highly susceptible

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