

Results from the 2024 small grain Virginia official variety trials

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The following tables present results from the wheat and barley variety trial conducted in Virginia between 2022 and 2024. These small grain variety 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.

Soft Red Winter Wheat in 2024

Heat and drought during the grain fill period led to rapid maturation and reduced test weight for the 2023-2024 growing season. Fortunately, precipitation throughout the region during mid- to late grain fill largely saved the crop, with another period of heat and low precipitation at maturation helped mature the crop 1-2 weeks earlier than typical, and allowed growers to get into the field to harvest with plenty of time. Disease pressure was high in some regions. Barley Yellow Dwarf Virus had very high infection rates in eastern and southern Virginia, and especially in fields that were planted early. Leaf rust came in earlier than typical in eastern Virginia and the eastern shore, and was particularly detrimental for eastern growers who did not apply fungicide to treat fusarium head blight (scab) infection. Powdery mildew was observed in Eastern Virginia but low pressure due to high temperatures and dry conditions shortly after disease onset. Fusarium head blight (scab) pressure was moderate across most of the state, and came on slightly later than typical years.

Table 1: Virginia state soft winter wheat official variety test at 6 sites across Virginia in 2024. Sites included Blacksburg, Blackstone, Orange, Painter, Shenandoah Valley, and Warsaw VA. Holland was not included due to excessive deer damage of awnless varieties.

Line	Grain Yield bu/ac (6)	Test Weight lb/bu (6)	Heading Date Julian (2)	Height in (2)	Lodging 0-9 (2)	Powdery Mildew 0-9 (2)	Leaf Rust 0-9 (3)	FHB 0-9 (1)	FDK % (1)	BYDV 0-9 (2)	Awns A-TA-AL
USG 3463	101.3+	56.6	116	36	1.6	1.7	2.5	3.5	8	3	A
USG 3673	99.8+	57.7	115-	37	1.0	5.4+	0.2-	3.0	5	2	AL
VA20FHB-18	99.3+	58.1	113-	40+	0.5	1.4	0.9	3.0	15	2	A
Southern Harvest 5123	99.3+	57.8	116	37	1.1	3.2	0.4-	4.0	5	2	AL
18VTK10-23	99.0+	59.5+	112-	39+	0.9	3.9+	1.6	3.0	5	1-	A
MAS #226	98.6+	57.0	114-	33-	0.8	3.2	2.0	1.0-	5	3	A
Dyna-Gro 9551	98.0+	55.9	112-	35-	0.6	2.9	6.2+	3.0	13	4	A
MAS #86	97.8+	56.3	117	40+	1.0	4.2+	4.6	3.5	20	2	A
USG 3354	96.4	56.5	113-	38	3.1+	2.7	3.9	1.5-	8	2	TA
InSpire FS 745	96.4	56.2	118+	38	0.7	3.2	4.6	5.0	13	2	A
VA20W-142	96.3	57.6	116	39	1.2	1.7	1.0	4.5	10	2	TA
Liberty 5658	96.2	58.0	114-	41+	0.8	2.7	2.4	3.5	8	1	A
MAS #155	96.1	56.4	117	39	0.8	1.4	6.8+	3.0	12	3	A
Dyna-Gro 9570	96.0	56.1	116	38	2.0+	3.4	4.2	4.0	18	4+	A
Dyna-Gro 9533	96.0	54.7-	117	36	1.1	0.9	6.2+	2.0-	25	1	AL
Revere 2347	95.8	57.2	117	39+	0.8	1.7	4.9+	2.5	10	2	A
mean	89.8	57.0	116	37	1.1	2.3	2.8	4.1	15	2	NA
LSD	7.1	1.2	1	2	0.9	1.7	1.9	2.0	15	2	NA
CV	13.5	3.6	1	4	87.8	53.0	60.9	24.1	51	47	NA

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain	Test	Heading	Height	Lodging	Powdery	Leaf	FHB	FDK	BYDV	Awns
	Yield	Weight	Date			Mildew	Rust				
AgriMAXX 545	95.8	55.4-	119+	36	0.8	1.9	5.0+	5.5	15	3	A
Revere 2169	95.8	56.4	118	39	0.7	1.7	5.6+	3.5	15	2	A
VT Pitman	95.4	58.6+	114-	37	0.8	1.9	0.2-	5.5	13	1	A
Dyna-Gro 9553	95.3	57.0	119+	36	0.5	3.4	2.2	2.5	5	2	A
USG 3352	95.3	56.9	119+	39	1.1	3.2	3.0	5.0	18	3	A
Dyna-Gro 9290	95.3	57.5	114-	37	0.6	2.7	3.8	2.0-	10	4+	A
VA20FHB-20	94.8	59.2+	114-	39	0.5	1.7	3.6	3.5	15	3	A
18VTK18-112	94.7	57.2	115-	41+	1.1	2.2	1.5	3.0	5	2	TA
16VDH-SRW03-023	94.6	56.5	114-	39	0.5	3.2	0.0-	5.0	8	2	TA
Southern Harvest 9520	94.5	57.4	120+	37	0.6	1.2	3.1	4.5	35+	3	A
26R33	94.4	57.1	117	37	0.8	1.4	4.7	4.0	13	4+	A
NC18-16900	94.4	57.4	117	39+	1.1	1.2	0.2-	3.0	8	1	AL
USG 3363	94.3	57.0	118	39	0.8	2.4	4.2	3.0	8	2	A
Dyna-Gro 9393	94.2	57.2	118+	36	0.6	3.4	3.4	4.5	13	3	A
USG 3451	94.2	57.8	114-	37	2.4+	2.7	1.8	1.5-	5	1	AL
Revere 2277	94.1	56.9	120+	37	0.6	0.7	3.7	5.5	18	2	A
Dyna-Gro 9422	93.9	56.4	117	38	1.1	2.4	5.6+	3.5	13	4	A
USG 3661	93.7	57.1	117	35-	2.5+	2.2	0.4-	6.0	20	4	TA
InSpire FS 891	93.7	57.3	118	37	0.9	3.7	3.7	3.0	8	2	A
Dyna-Gro 9593	93.5	56.5	115	35-	0.6	2.9	3.8	3.5	8	4	A
GP 543	93.4	56.1	112-	38	2.5+	1.2	2.7	3.0	8	3	TA
MBX 127	93.3	56.2	118	37	0.5	2.4	5.2+	4.5	5	2	A
mean	89.8	57.0	116	37	1.1	2.3	2.8	4.1	15	2	NA
LSD	7.1	1.2	1	2	0.9	1.7	1.9	2.0	15	2	NA
CV	13.5	3.6	1	4	87.8	53.0	60.9	24.1	51	47	NA

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Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Powdery Mildew	Leaf Rust	FHB	FDK	BYDV	Awns
MAS #139	93.3	55.7-	117	36	0.6	3.4	5.8+	3.5	33+	3	A
AGS 4043	93.3	58.4+	115-	34-	0.9	0.7	0.9	4.5	5	1	A
EPIX 4480	93.2	56.9	119+	36	0.6	3.9+	4.0	4.5	13	2	A
MAS #228	93.1	56.8	118+	37	0.9	2.4	4.5	5.0	20	3	A
VA22W-196	93.1	55.5-	112-	35-	1.0	2.7	0.7-	6.0	47+	2	AL
Phoenix 29	93.1	57.6	118+	37	0.7	1.4	2.6	3.0	28	1	A
AgriMAXX EXP 2404	93.1	56.7	119+	35-	0.6	3.4	4.0	3.0	18	3	A
GA15490ID-19-5-21LE2	92.9	57.6	117	38	0.7	3.9+	1.9	7.0+	48+	1	A
MAS #225	92.9	56.5	118+	36	0.5	2.4	3.9	3.5	8	2	A
EPIX 3489	92.8	57.0	117	35-	1.1	4.2+	4.3	4.5	10	2	A
Dyna-Gro 9231	92.7	56.7	117	40+	0.9	2.9	4.7	3.0	8	3	A
AgriMAXX 516	92.7	56.2	118	38	0.8	2.2	4.9+	4.5	13	3	A
NC15305-43	92.6	58.9+	116	37	0.8	4.9+	0.5-	3.0	8	1	A
KWS543	92.5	56.8	118+	36	0.8	4.7+	4.3	3.5	10	2	A
InSpire FS 747	92.4	56.3	115-	37	0.6	3.9+	2.3	1.0-	5	3	AL
AgriMAXX 535	92.3	57.9	118+	36	0.5	1.7	3.3	4.5	13	3	A
InSpire FS 743	92.3	57.6	118	39	0.6	2.4	4.0	3.0	15	3	A
USG 3472	92.3	56.2	118+	36	0.8	3.4	6.0+	4.0	8	2	A
VA22W-201	92.1	58.8+	114-	34-	1.5	1.7	1.4	5.5	15	2	A
AgriMAXX 544	92.1	56.3	115-	38	0.8	4.4+	2.6	2.5	5	2	TA
EPIX 4372	91.9	56.6	118	37	0.8	2.9	5.1+	3.0	8	3	A
DH19SRW07-321	91.9	57.1	117	38	0.8	0.9	2.4	6.0	18	1-	A
mean	89.8	57.0	116	37	1.1	2.3	2.8	4.1	15	2	NA
LSD	7.1	1.2	1	2	0.9	1.7	1.9	2.0	15	2	NA
CV	13.5	3.6	1	4	87.8	53.0	60.9	24.1	51	47	NA

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Line	Grain	Test	Heading	Height	Lodging	Powdery	Leaf	FHB	FDK	BYDV	Awns
	Yield	Weight	Date			Mildew	Rust				
DH19SRW08-020	91.8	58.1	112-	35-	0.8	1.2	1.4	4.5	13	1	A
InSpire FS 855	91.7	56.7	118	38	0.6	1.7	3.4	2.5	5	3	A
MAS #227	91.7	56.6	119+	36	1.4	2.2	3.4	4.0	5	3	A
EPIX 3498	91.6	57.6	118+	37	0.9	1.4	4.6	5.5	15	2	A
Dyna-Gro 9172	91.2	56.0	118+	37	0.9	3.4	6.4+	3.5	10	3	A
19VTK7-66	91.1	56.5	117	41+	1.9	1.2	0.4-	3.0	10	2	A
AgriMAXX 525	90.8	56.6	119+	35-	0.7	2.7	4.9+	4.5	13	5+	A
VA22W-21	90.8	55.6-	119+	34-	0.5	2.9	1.9	5.5	18	3	A
Dyna-Gro 9120	90.7	58.0	116	36	0.5	2.4	4.0	3.5	5	2	A
DH20SRW02-073	90.6	57.2	118+	36	2.1+	0.7	0.0-	5.0	20	2	TA
CP8045	90.5	56.0	118+	38	0.9	2.2	5.8+	4.0	10	2	A
18VTK10-110	90.4	58.7+	118+	36	0.5	1.4	1.2	4.5	10	1-	A
VA18HRW-58	90.3	58.2+	121+	40+	2.1+	1.4	2.4	5.5	22	3	A
19VDH-FHB-MAS05-27	90.2	55.8	118+	39+	2.3+	2.4	2.5	4.0	13	1	TA
NC20-21971	90.2	58.4+	114-	40+	2.4+	1.2	0.6-	6.0	5	1-	TA
NC14757LDH-44	90.1	57.5	114-	38	1.8	1.2	0.6-	5.0	13	1-	TA
18VTK6-3	90.0	58.0	118+	37	0.7	1.2	0.9-	4.0	23	1-	A
VA20W-135	90.0	57.8	116	40+	0.9	1.9	1.0	5.0	18	2	A
17VDH-SRW02-125	89.9	58.3+	119+	37	0.7	0.9	0.8-	3.5	8	2	A
Southern Harvest 7200	89.9	58.1	113-	41+	1.5	2.7	0.7-	6.0	33+	3	A
19VTK5-167	89.8	57.3	116	33-	1.5	4.9+	0.6-	5.0	15	2	A
UMD-VTWVT24-2	89.8	57.7	117	38	1.0	2.7	2.0	5.5	10	3	TA
mean	89.8	57.0	116	37	1.1	2.3	2.8	4.1	15	2	NA
LSD	7.1	1.2	1	2	0.9	1.7	1.9	2.0	15	2	NA
CV	13.5	3.6	1	4	87.8	53.0	60.9	24.1	51	47	NA

continued . . .

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Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Powdery Mildew	Leaf Rust	FHB	FDK	BYDV	Awns
Featherstone 3000	89.7	58.0	117	37	0.7	4.9+	1.0	4.5	5	3	AL
GP 381	89.7	56.5	114-	36	0.7	1.2	1.9	3.0	8	1-	AL
KWS527	89.5	56.7	118+	38	1.0	1.9	4.4	3.0	8	3	A
Southern Harvest 4222	89.5	56.9	117	39	0.9	1.7	5.0+	3.0	10	3	A
MAS #190	89.4	57.2	120+	36	0.5	2.9	5.1+	4.5	10	2	A
18VTK15-27	89.3	55.4-	111-	38	4.1+	1.2	2.0	4.0	10	2	TA
Phoenix 96	89.3	57.7	120+	41+	0.7	0.9	2.6	4.5	50+	2	A
EPIX 1375	89.1	57.7	112-	37	1.9	0.9	0.6-	4.5	7	3	TA
AgriMAXX 513	89.1	56.8	118	37	0.6	1.2	4.0	4.5	18	2	A
KWS542	89.1	57.1	116	40+	1.1	2.4	2.2	3.5	10	2	A
DH19SRW07-309	88.9	57.1	117	39	0.6	1.2	3.4	6.5+	35+	1	A
Dyna-Gro Shirley	88.9	55.8	117	35-	0.8	0.7	1.0	6.5+	28	2	TA
Dyna-Gro 9151	88.9	58.1	118	38	0.9	2.4	5.1+	3.5	10	4	A
Southern Harvest 7222	88.8	58.7+	118	38	0.6	1.4	1.0	5.5	18	1-	A
MBX 230	88.7	56.9	117	39	0.9	2.2	5.1+	4.0	10	4+	A
17VTK4-29	88.7	57.1	114-	35-	2.0+	0.7	1.6	5.5	8	2	AL
NC16VT30-7-47	88.6	58.5+	113-	36	1.9	0.9	0.2-	5.5	10	1	TA
18VTK10-5	88.5	58.0	117	37	0.6	1.4	1.2	5.0	7	1-	A
MAS #178	88.5	56.3	118+	39+	0.9	1.7	2.2	4.0	12	2	AL
GA151313-LDH-192 -20E48	88.4	57.5	119+	32-	0.5	1.4	0.9-	6.5+	20	2	A
USG 3884	88.2	56.6	116	35-	0.8	2.7	2.4	3.0	8	3	A
19VDH-FHB-MAS03-29	87.8	57.3	115-	37	0.7	0.9	0.6-	1.5-	15	2	AL
mean	89.8	57.0	116	37	1.1	2.3	2.8	4.1	15	2	NA
LSD	7.1	1.2	1	2	0.9	1.7	1.9	2.0	15	2	NA
CV	13.5	3.6	1	4	87.8	53.0	60.9	24.1	51	47	NA

continued . . .

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Line	Grain	Test	Heading	Height	Lodging	Powdery	Leaf	FHB	FDK	BYDV	Awns
	Yield	Weight	Date			Mildew	Rust				
AgriMAXX 505	87.6	58.1	118	37	1.6	2.2	4.9+	3.5	15	4+	A
18VDH-FHB-MAS07-173-03	87.3	56.5	116	40+	2.7+	0.7	0.6-	5.5	18	3	A
15VTK-1-101	87.1	57.5	116	34-	0.7	0.9	0.0-	5.5	18	2	A
17VDH-SRW01-077	87.0	58.3+	113-	38	0.6	0.9	0.3-	6.5+	8	4	A
UMD-VTWVT24-3	87.0	57.6	117	38	1.7	0.9	3.6	5.0	25	3	AL
KWS529	86.9	55.3-	116	36	1.6	5.9+	4.3	2.5	8	2	AL
DH17SRW136-066	86.6	56.1	115-	37	1.4	0.9	3.9	4.0	10	3	TA
MAS #189	86.5	57.6	112-	40+	2.8+	5.7+	4.9+	2.0-	5	2	A
26R59	86.3	55.9	116	34-	0.6	3.4	4.6	3.5	35+	3	TA
MAS #316	86.3	56.2	119+	39	1.1	1.9	5.2+	4.5	15	5+	A
VA21W-112	86.1	55.9	115-	36	0.6	3.2	0.6-	4.5	15	2	A
MAS #106	86.1	56.8	110-	35-	2.5+	6.2+	3.4	3.0	5	2	TA
USG 3574	85.8	55.1-	114-	34-	1.4	1.9	5.0+	3.0	5	1	AL
MAS #2	85.8	57.8	119+	45+	3.9+	3.7	4.6	4.5	10	2	AL
GA131246LDH-86-21E2	85.8	55.7-	118	37	0.8	3.4	0.6-	6.5+	33+	3	A
15VDH-FHB-MAS25-15	85.7	57.9	114-	36	0.5	1.4	0.6-	5.5	20	2	A
VA21W-39	85.3	56.9	115-	40+	1.1	0.7	3.2	6.0	35+	2	A
AgriMAXX 503	85.2	57.2	118+	37	1.6	3.2	4.0	1.0-	13	3	AL
VA19FHB-36	85.0	58.6+	115-	41+	0.7	1.4	2.3	4.0	18	2	A
DH19SRW09-073	84.7	56.2	116	41+	1.4	3.7	2.2	2.5	10	3	AL
AGS 3026	84.7	56.4	120+	37	0.8	4.7+	1.2	6.5+	33+	1-	A
MAS #67	84.6	55.3-	113-	36	0.9	5.2+	4.8+	1.0-	5	3	AL
mean	89.8	57.0	116	37	1.1	2.3	2.8	4.1	15	2	NA
LSD	7.1	1.2	1	2	0.9	1.7	1.9	2.0	15	2	NA
CV	13.5	3.6	1	4	87.8	53.0	60.9	24.1	51	47	NA

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	Yield	Weight	Date			Mildew	Rust				
19VDH-FHB-MAS01-29	84.6	54.9-	117	32-	0.5	0.7	1.0	5.0	33+	2	A
GA141045-9-3-2-21LE7	84.5	57.8	118+	40+	0.8	1.4	0.8-	5.0	18	2	A
26R45	84.5	55.6-	117	39	1.6	3.2	3.7	2.5	5	3	AL
GANC12915-167-21E3	84.4	56.8	115-	37	0.9	0.7	0.6-	6.5+	28	1	TA
NC11546-14	84.3	59.2+	114-	39	2.2+	0.7	1.4	2.5	5	3	A
HILLIARD	84.2	57.4	114-	39+	0.5	1.9	1.6	3.5	8	3	A
VA22FHB-90	84.2	57.8	120+	40+	1.7	2.4	1.0	3.0	5	2	AL
VA19W-29	83.8	56.7	115-	40+	0.9	0.9	4.8+	4.5	25	2	A
UMD-VTWVT24-1	83.7	57.7	115-	36	0.8	2.4	1.3	5.0	30+	3	A
MERL	83.4	57.8	113-	37	0.7	0.9	4.2	6.5+	13	3	TA
EPIX 1365	83.0	55.7-	116	37	0.6	1.4	2.2	4.5	18	5+	A
19VDH-FHB-MAS02-06	82.8	58.1	119+	35-	0.5	1.2	2.4	5.0	15	2	A
MAS #133	82.6-	54.5-	118+	38	0.8	2.7	5.3+	5.0	35+	4	A
CP8024	82.0-	58.3+	119+	36	0.9	5.7+	3.6	4.5	13	2	AL
18VTK12-111	81.9-	57.9	120+	35-	0.5	0.9	0.7-	5.0	18	1	TA
18VTK5-95	81.1-	57.3	116	35-	1.0	0.9	1.0	5.5	13	2	AL
VA19HRW-17	80.9-	56.6	122+	38	0.5	0.9	1.0	6.0	48+	2	A
KWS525	80.4-	56.3	119+	35-	0.5	1.2	4.7	4.0	15	4	A
DH19SRW08-001	80.1-	55.6-	118+	35-	1.3	0.7	2.2	4.5	13	3	TA
VA19MAS7-519-1WS-R110	78.9-	57.1	118+	37	0.5	0.9	2.7	5.5	13	3	A
VA20HRW-50	77.8-	57.3	119+	42+	0.8	1.2	2.8	4.5	20	1	A
17VTK18-13	76.1-	55.3-	118+	38	0.6	1.7	1.0	6.0	20	2	A
mean	89.8	57.0	116	37	1.1	2.3	2.8	4.1	15	2	NA
LSD	7.1	1.2	1	2	0.9	1.7	1.9	2.0	15	2	NA
CV	13.5	3.6	1	4	87.8	53.0	60.9	24.1	51	47	NA

continued . . .

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Powdery Mildew	Leaf Rust	FHB	FDK	BYDV	Awns
MASSEY	70.4-	57.2	114-	41+	2.4+	0.9	8.3+	1.5-	8	3	TA
15VTK-1-101-BS112	65.4-	53.4-	120+	35-	0.5	1.2	3.6	3.5	23	3	TA
mean	89.8	57.0	116	37	1.1	2.3	2.8	4.1	15	2	NA
LSD	7.1	1.2	1	2	0.9	1.7	1.9	2.0	15	2	NA
CV	13.5	3.6	1	4	87.8	53.0	60.9	24.1	51	47	NA

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.

FHB = Fusarium Head Blight Score (0-9)

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Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 2: Virginia state soft winter wheat official variety test across 12 site-years in 2023 and 2024.

Line	Grain	Test	Heading	Height	Lodging	Powdery			Leaf			Awns
	Yield	Weight	Date			Mildew	FHB	FDK	Rust	BYDV	DON	
	bu/ac	lb/bu	Julian	in	0-9	0-9	0-9	%	0-9	0-9	ppm	A-TA-AL
	(12)	(12)	(4)	(4)	(4)	(5)	(2)	(2)	(5)	(3)	(1)	
VA20FHB-18	109.6+	58.1+	115-	39+	0.6	1.7-	3.5	30	0.7-	1.7	9	A
18VTK10-23	108.1+	59.5+	113-	38	0.6	3.6	3.5	25	0.8-	0.5-	7	A
USG 3673	107.1+	57.8	116	37	1.2	4.9+	3.2	17	0.1-	1.5	4	AL
USG 3463	104.8	56.3-	117	35-	1.1	2.1	3.7	36	3.4	2.5	5	A
VT Pitman	104.2	58.5+	115-	36-	0.9	2.2	4.5	19	0.0-	0.9	5	A
USG 3661	104.0	57.4	118	34-	2.0+	2.6	5.0	37	0.4-	2.9	10	AL
VA20W-142	103.8	57.6	116	39+	1.5	2.1	4.2	30	0.7-	1.5	6	TA
USG 3451	103.8	58.0	114-	37	2.3+	2.9	3.0	10-	1.6-	0.9	3	AL
MAS #86	103.6	56.3-	117	39+	0.8	4.6+	3.5	30	4.4	1.7	3	A
Dyna-Gro 9393	103.5	57.0	118+	35-	0.5	3.9+	4.5	29	3.2	2.7	7	A
Phoenix 29	103.5	58.2+	118+	36	1.0	1.9	3.5	51+	2.1	1.1	10	A
USG 3352	103.1	56.8	119+	38	0.8	4.1+	4.8	37	3.8	2.3	15+	A
15VTK-1-101	102.9	57.7	117	33-	1.2	1.1-	4.7	39	0.0-	1.1	9	A
17VDH-SRW02-125	102.8	58.4+	119+	37	1.0	0.5-	3.7	26	0.5-	1.3	11	A
Revere 2347	102.7	57.1	118+	38	0.5	2.5	3.7	15	5.2+	2.1	5	A
VA20W-135	102.6	57.7	117	40+	0.9	2.6	4.8	42	0.5-	1.5	13+	A
MAS #155	102.5	56.1-	118	38+	1.2	2.2	4.0	44	7.5+	1.9	8	A
mean	99.3	57.2	117	37	1.0	2.7	4.1	30	3.1	2.1	7	NA
LSD	5.5	0.8	1	1	0.8	1.0	1.5	17	1.5	1.4	5	NA
CV	13.6	3.2	1	4	107.3	43.7	26.5	41	53.6	53.7	34	NA

continued ...

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.

BYDV = Barley Yellow Dwarf

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Powdery Mildew	FHB	FDK	Leaf Rust	BYDV	DON	Awns
18VTK10-110	102.4	59.3+	118+	36	0.5	1.6-	3.5	27	0.8-	0.7-	5	A
AgriMAXX 535	102.4	58.0	118+	36-	0.7	2.2	4.5	29	3.4	2.1	7	A
Dyna-Gro 9422	102.3	56.3-	117	37	1.1	2.5	4.5	41	6.7+	3.1	13+	A
Dyna-Gro 9120	102.2	58.4+	116	36	0.7	3.5	4.0	11-	3.6	1.5	5	A
17VDH-SRW01-077	102.0	58.3+	114-	38	0.6	0.5-	5.5	14	0.2-	2.9	6	A
GP 543	102.0	56.0-	114-	38	1.9+	0.8-	4.0	29	2.7	2.3	4	TA
Revere 2277	101.9	57.1	120+	36	0.5	0.9-	5.0	34	4.3	1.7	7	A
18VTK6-3	101.6	58.1+	118+	37	0.6	1.7-	3.7	40	0.6-	0.5-	7	A
Dyna-Gro Shirley	101.4	56.5	117	35-	0.7	0.6-	6.3+	51+	0.6-	1.7	14+	TA
VA20FHB-20	101.3	59.1+	115-	38	0.5	1.8	3.5	21	3.2	2.5	6	A
Dyna-Gro 9290	101.2	57.0	115-	38	0.6	3.7	3.2	27	2.9	4.1+	7	A
USG 3363	101.1	57.0	118	38	0.6	2.6	3.2	19	5.1+	1.9	5	A
Liberty 5658	101.0	58.1+	114-	40+	1.1	3.5	3.7	24	1.8	0.9	6	A
Dyna-Gro 9231	100.5	57.2	117	39+	0.8	3.2	4.0	17	4.4	2.7	3	A
MBX 127	100.2	56.2-	118+	37	0.5	3.6	4.2	20	5.9+	1.7	4	A
MAS #139	100.2	55.9-	118+	36-	0.5	3.7	4.2	51+	6.0+	2.3	10	A
AGS 4043	100.2	58.9+	116-	34-	0.9	0.6-	4.2	20	0.6-	1.1	4	A
MAS #190	100.2	57.0	120+	35-	0.6	3.1	4.7	32	4.7+	1.9	9	A
AgriMAXX 525	100.1	56.7	119+	35-	0.7	3.2	4.5	26	5.5+	4.5+	4	A
Dyna-Gro 9172	99.9	56.3-	118	37	0.9	4.1+	3.2	25	6.5+	2.5	4	A
16VDH-SRW03-023	99.3	56.9	115-	38	0.5	3.2	4.7	26	0.3-	1.5	7	TA
mean	99.3	57.2	117	37	1.0	2.7	4.1	30	3.1	2.1	7	NA
LSD	5.5	0.8	1	1	0.8	1.0	1.5	17	1.5	1.4	5	NA
CV	13.6	3.2	1	4	107.3	43.7	26.5	41	53.6	53.7	34	NA

continued ...

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.

BYDV = Barley Yellow Dwarf

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Powdery Mildew	FHB	FDK	Leaf Rust	BYDV	DON	Awns
AgriMAXX 516	99.3	56.2-	118	37	0.7	3.7	4.8	34	6.0+	2.5	6	A
EPIX 4372	99.1	56.7	118+	37	0.7	3.9+	3.2	24	6.2+	2.7	4	A
VA19FHB-36	99.1	58.2+	115-	40+	0.9	1.9	3.5	24	1.7	1.9	8	A
EPIX 1375	99.0	57.6	113-	37	1.8	0.4-	4.2	23	0.4-	2.9	9	AL
17VTK4-29	98.7	57.5	115-	35-	1.8	0.5-	5.3	36	1.0-	1.9	8	TA
MAS #178	98.6	56.5	118+	39+	1.0	3.5	4.0	36	2.8	1.3	7	AL
EPIX 1365	98.6	55.7-	116	36	0.6	2.1	5.5	39	2.0	4.9+	6	A
MBX 230	98.4	56.9	117	38	0.6	2.1	4.2	22	5.8+	4.1+	4	A
VA18HRW-58	98.1	58.4+	120+	40+	1.9+	1.8	4.5	46	1.6-	3.1	7	A
VA21W-112	98.0	56.1-	116	36-	0.9	2.3	5.0	49+	0.5-	1.7	19+	A
18VTK12-111	98.0	58.1+	120+	35-	0.9	0.8-	4.5	24	0.6-	0.7-	7	TA
HILLIARD	98.0	57.3	115-	39+	0.5	2.1	3.5	30	1.1-	2.3	10	A
Revere 2169	98.0	56.2-	118+	37	0.6	3.2	3.5	15	6.0+	1.3	4	A
AgriMAXX 513	98.0	56.9	117	37	1.5	2.4	4.0	27	4.4	1.9	4	A
USG 3472	98.0	56.2-	118+	36-	0.6	4.3+	4.0	26	7.0+	1.9	3	A
18VDH-FHB-MAS07-173-03	97.9	57.1	117	38	2.5+	0.7-	5.0	31	0.4-	2.3	10	A
CP8045	97.7	56.1-	118+	37	0.6	3.6	4.0	27	5.8+	2.3	3	A
VA19W-29	97.3	57.2	116-	39+	0.9	2.3	5.2	49+	4.7+	1.7	14+	A
DH17SRW136-066	97.2	56.3-	116	36	1.4	0.7-	4.0	41	4.4	1.9	6	TA
Dyna-Gro 9151	96.7	57.7	118+	38	1.2	3.2	4.0	35	6.1+	3.1	8	A
Featherstone 3000	96.6	58.0	118	37	0.7	4.6+	4.1	43	0.8-	3.4	13+	AL
mean	99.3	57.2	117	37	1.0	2.7	4.1	30	3.1	2.1	7	NA
LSD	5.5	0.8	1	1	0.8	1.0	1.5	17	1.5	1.4	5	NA
CV	13.6	3.2	1	4	107.3	43.7	26.5	41	53.6	53.7	34	NA

continued ...

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.

BYDV = Barley Yellow Dwarf

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Powdery Mildew	FHB	FDK	Leaf Rust	BYDV	DON	Awns
AgriMAXX 505	95.5	58.0+	118+	37	1.3	3.2	3.8	30	5.0+	3.7+	6	A
18VTK5-95	95.0	58.1+	117	36-	0.8	0.7-	4.5	29	0.6-	1.3	6	AL
MAS #133	94.8	54.7-	118+	38	0.9	3.9+	4.2	55+	5.1+	3.1	12+	A
MAS #67	94.5	55.4-	114-	36-	0.7	5.8+	3.0	14	3.7	2.7	2-	AL
MAS #316	94.1	56.4-	119+	38	1.2	3.8+	3.7	30	4.8+	4.1+	5	A
AgriMAXX 503	93.7-	57.0	118+	37	1.1	4.6+	1.5-	20	4.1	2.9	2-	AL
VA19MAS7-519-1WS-R110	92.9-	57.5	119+	37	0.5	2.0	4.7	26	2.0	3.1	21+	A
AGS 3026	92.7-	57.2	120+	36	0.9	6.2+	5.0	57+	0.8-	0.7-	29+	A
MAS #189	90.7-	57.7	111-	39+	2.0+	3.0	2.5-	16	4.6+	1.3	2-	A
MAS #2	90.0-	57.9	119+	44+	4.1+	4.6+	3.8	22	4.3	1.3	5	AL
MAS #106	86.5-	57.0	110-	36-	2.2+	6.7+	3.5	15	3.4	1.7	3	TA
MASSEY	77.0-	56.9	115-	41+	2.8+	1.7-	3.0	34	8.1+	2.7	10	TA
mean	99.3	57.2	117	37	1.0	2.7	4.1	30	3.1	2.1	7	NA
LSD	5.5	0.8	1	1	0.8	1.0	1.5	17	1.5	1.4	5	NA
CV	13.6	3.2	1	4	107.3	43.7	26.5	41	53.6	53.7	34	NA

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.

BYDV = Barley Yellow Dwarf

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 3: Virginia state soft winter wheat official variety test across 17 site-years from 2022 to 2024.

Line	Grain Yield bu/ac (17)	Test Weight lb/bu (17)	Heading Date Julian (5)	Height in (5)	Lodging 0-9 (4)	Powdery Mildew 0-9 (5)	FHB 0-9 (3)	FDK % (3)	Leaf Rust 0-9 (5)	BYDV 0-9 (3)	DON ppm (2)	Awns A-TA-AL
USG 3352	100.6+	56.9	121+	37	0.8	4.1+	4.2	40	3.8	2.2	13+	A
USG 3673	100.5+	57.7	118	36	1.2	4.8+	3.2	17	0.1-	1.4	5	AL
USG 3463	100.3+	56.3	118	35-	1.1	2.1	3.3	45	3.4	2.4	5	A
USG 3451	99.9+	58.0+	116-	37	2.3+	2.8	4.0	29	1.5-	0.8	7	AL
USG 3661	99.8+	57.6	119+	34-	2.0+	2.5	4.8	45	0.3-	2.8	12+	AL
Dyna-Gro 9393	99.6+	57.0	120+	35-	0.5	3.8	4.2	31	3.3	2.6	7	A
VA20W-142	99.0	57.5	118	38+	1.5	2.1	4.0	29	0.7-	1.4	6	TA
VT Pitman	98.8	58.4+	116-	35-	0.9	2.2	4.0	26	-0.0-	0.8	7	A
MAS #86	98.6	55.3-	118	39+	0.8	4.5+	3.0	29	4.3	1.6	3	A
MAS #155	98.6	56.2	119+	38+	1.2	2.2	4.0	42	7.4+	1.8	8	A
VA20FHB-20	98.3	59.0+	117-	38+	0.5	1.7-	3.5	29	3.2	2.4	7	A
15VTK-1-101	98.3	57.4	118	33-	1.2	1.1-	4.5	31	-0.0-	1.0	10	A
17VDH-SRW01-077	97.9	58.2+	115-	38+	0.6	0.4-	5.2+	25	0.2-	2.8	7	A
Revere 2277	97.7	57.2	122+	36-	0.5	0.9-	4.3	34	4.4	1.6	9	A
AgriMAXX 535	97.5	58.0+	119+	35-	0.7	2.2	4.2	30	3.4	2.0	8	A
17VTK4-29	97.3	56.8	116-	35-	1.8	0.4-	4.8	33	1.1-	1.8	9	TA
USG 3363	97.2	57.1	119+	38+	0.6	2.5	3.1	20	5.1+	1.8	5	A
mean	94.9	57.0	118	37	1.1	2.9	3.9	30	3.5	2.2	7	NA
LSD	4.5	0.9	1	1	0.8	1.0	1.1	16	1.5	1.5	5	NA
CV	13.9	4.5	1	4	103.8	42.4	25.3	46	48.2	54.9	41	NA

continued ...

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

BYDV = Barley Yellow Dwarf

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Powdery Mildew	FHB	FDK	Leaf Rust	BYDV	DON	Awns
Dyna-Gro 9120	96.9	58.3+	117	36-	0.7	3.4	4.7	18	3.6	1.4	6	A
Dyna-Gro Shirley	96.7	56.2	118	35-	0.7	0.5-	6.0+	51+	0.6-	1.6	13+	TA
MBX 127	96.4	55.9-	119+	37	0.5	3.5	3.8	18	5.9+	1.6	4	A
VA19FHB-36	95.9	58.2+	117-	40+	0.9	1.8-	3.5	26	1.7-	1.8	7	A
Liberty 5658	95.9	58.0+	115-	39+	1.1	3.4	3.8	26	1.8-	0.8	8	A
Dyna-Gro 9172	95.7	56.2	119+	36	0.9	4.1+	3.3	21	6.5+	2.4	5	A
MAS #139	95.6	55.7-	119+	36-	0.5	3.6	4.2	55+	6.0+	2.2	8	A
AgriMAXX 525	95.5	56.8	120+	35-	0.7	3.2	3.8	29	5.5+	4.4+	4	A
AgriMAXX 516	95.3	56.1-	119+	36	0.7	3.6	4.2	29	6.0+	2.4	6	A
16VDH-SRW03-023	95.0	55.6-	117-	37	0.5	3.2	4.3	28	0.2-	1.4	6	TA
USG 3472	95.0	56.3	120+	36-	0.6	4.3+	3.7	23	7.0+	1.8	4	A
CP8045	94.9	56.1-	119+	36	0.6	3.5	4.0	27	5.8+	2.2	4	A
EPIX 1375	94.9	57.8	114-	36	1.8	0.4-	4.2	24	0.4-	2.8	8	AL
DH17SRW136-066	94.8	56.3	118	36	1.4	0.6-	3.7	46	4.4	1.8	6	TA
Revere 2169	94.8	56.1-	119+	37	0.6	3.2	3.3	14-	6.0+	1.2	5	A
AgriMAXX 513	94.4	57.1	118	37	1.5	2.4	3.5	30	4.4	1.8	3	A
VA19W-29	93.9	57.2	117-	39+	0.9	2.3	5.2+	43	4.6	1.6	12+	A
Dyna-Gro 9151	93.9	57.7	119+	37	1.2	3.2	3.8	31	6.1+	3.0	7	A
HILLIARD	93.6	57.1	116-	38+	0.5	2.1	3.7	33	1.1-	2.2	10	A
Featherstone 3000	93.6	57.9+	119+	36	0.7	4.6+	4.1	37	0.7-	3.4	11	AL
VA18HRW-58	93.6	58.5+	122+	39+	1.9	1.7-	4.3	49+	1.5-	3.0	7	A
mean	94.9	57.0	118	37	1.1	2.9	3.9	30	3.5	2.2	7	NA
LSD	4.5	0.9	1	1	0.8	1.0	1.1	16	1.5	1.5	5	NA
CV	13.9	4.5	1	4	103.8	42.4	25.3	46	48.2	54.9	41	NA

continued ...

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.

BYDV = Barley Yellow Dwarf

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Powdery Mildew	FHB	FDK	Leaf Rust	BYDV	DON	Awns
AgriMAXX 503	93.5	57.2	119+	37	1.1	4.5+	2.0-	17	4.2	2.8	3	AL
AgriMAXX 505	92.3	58.0+	119+	36	1.3	3.2	3.7	38	5.0+	3.6+	7	A
MAS #133	90.6	54.6-	119+	37	0.9	3.9+	4.0	49+	5.1+	3.0	11	A
MAS #316	89.7-	56.5	120+	38	1.2	3.7	3.3	23	4.8	4.0+	6	A
MAS #67	89.7-	55.3-	115-	35-	0.7	5.7+	2.7-	19	3.6	2.6	2-	AL
VA19MAS7-519-1WS-R110	89.5-	57.8	120+	37	0.5	2.0	4.2	26	2.0-	3.0	17+	A
MAS #189	87.3-	57.7	112-	38+	2.0+	3.0	2.3-	17	4.6	1.2	2-	A
MAS #2	86.0-	58.0+	120+	43+	4.1+	4.5+	3.5	27	4.3	1.2	5	AL
MAS #106	81.5-	55.8-	112-	36	2.2+	6.6+	3.3	15	3.4	1.6	3	TA
MASSEY	76.8-	57.0	116-	40+	2.8+	1.6-	3.3	33	8.1+	2.6	9	TA
mean	94.9	57.0	118	37	1.1	2.9	3.9	30	3.5	2.2	7	NA
LSD	4.5	0.9	1	1	0.8	1.0	1.1	16	1.5	1.5	5	NA
CV	13.9	4.5	1	4	103.8	42.4	25.3	46	48.2	54.9	41	NA

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.

BYDV = Barley Yellow Dwarf

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 4: Virginia state soft winter wheat official variety test in Blacksburg, VA in 2024.

Line	Grain Yield bu/ac	Test Weight lb/bu	Heading Date Julian	Height in	Lodging 0-9	Awns A-TA-AL
USG 3463	128.0	56.0-	119	35	2.3	A
16VDH-SRW03-023	127.8	56.3	118-	40	-0.0	TA
DH20SRW02-073	127.0	56.9	120+	38	2.7+	TA
19VTK7-66	125.0	56.9	120	42+	2.5	A
Dyna-Gro 9570	124.8	55.3-	120	37	2.7+	A
AgriMAXX 545	124.6	54.9-	121+	37	0.5	A
18VTK10-23	123.3	58.6+	115-	38	0.7	A
VA20W-142	122.5	57.3+	120	39	1.2	TA
MAS #226	122.4	57.1	118-	36	0.5	A
Southern Harvest 9520	122.2	56.8	122+	36	0.3	A
MAS #155	122.2	55.9-	119	39	0.5	A
Southern Harvest 5123	121.7	56.8	120	39	1.2	AL
USG 3673	121.7	56.8	119-	36	1.0	AL
GP 543	121.6	56.0-	116-	40	3.5+	TA
InSpire FS 891	121.6	57.2	120+	36	0.7	A
EPIX 4480	120.4	56.6	121+	35	0.3	A
VA20FHB-18	119.7	57.4+	118-	40	-0.0	A
Revere 2169	119.6	56.0-	120	38	0.2	A
18VTK18-112	119.5	57.4+	118-	40	0.7	TA
Dyna-Gro 9551	119.2	54.9-	115-	35	-0.0	A
InSpire FS 743	119.1	57.2	120	38	0.2	A
USG 3661	119.0	56.4	120	35	3.7+	TA
EPIX 3489	118.9	56.8	120	35	1.0	A
26R33	118.9	57.1	120	38	0.5	A
MAS #139	118.5	55.1-	120	36	0.2	A
USG 3354	118.1	55.8-	117-	37	3.7+	TA
17VTK4-29	118.1	56.9	118-	35	2.5	TA
InSpire FS 745	118.0	56.0-	119	38	0.5	A
AgriMAXX EXP 2404	117.7	56.5	121+	34-	0.2	A
Southern Harvest 7222	117.3	57.9+	120	38	0.3	A
KWS543	117.0	56.0-	121+	37	0.5	A
mean	109.8	56.6	119	37	1.0	NA
LSD	19.0	0.6	1	3	1.6	NA
CV	12.4	0.7	0	4	118.2	NA

continued ...

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.
FHB = Fusarium Head Blight Score (0-9)
FDK = Fusarium Diseased Kernels (percent)
DON = Deoxynivalenol concentration in the kernels (ppm)
Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Awns
Dyna-Gro 9593	116.9	56.1	119	35	-0.0	A
InSpire FS 747	116.9	55.6-	119	37	0.2	TA
DH19SRW07-309	116.7	57.2	120	38	-0.0	A
MBX 230	116.7	56.9	120	39	0.7	A
VA19MAS7-519-1WS-R110	116.3	58.8+	120+	39	-0.0	A
Dyna-Gro 9231	116.0	57.2	119	40	0.7	A
Phoenix 29	116.0	57.8+	121+	37	0.5	A
MBX 127	115.6	56.0-	120	36	-0.0	A
Dyna-Gro 9533	115.5	54.9-	120	34	1.0	AL
KWS529	115.4	54.9-	119	37	2.3	TA
18VTK10-110	115.3	59.0+	120	35	-0.0	A
Liberty 5658	114.9	57.5+	117-	42+	0.2	A
Dyna-Gro 9172	114.6	55.9-	120	38	0.7	A
USG 3352	114.1	56.1	121+	37	0.7	A
VA22W-21	114.0	55.2-	122+	34-	0.0	A
GA151313-LDH-192 -20E48	113.8	56.9	121+	33-	-0.0	A
MAS #178	113.8	55.6-	121+	40	0.7	AL
USG 3472	113.5	55.8-	120	36	0.5	A
DH17SRW136-066	113.4	56.3	119	36	1.5	TA
DH19SRW07-321	113.2	57.5+	120	37	0.5	A
MAS #227	113.2	55.2-	120	36	1.7	A
NC18-16900	113.2	56.7	120	40	1.2	TA
19VDH-FHB-MAS05-27	112.6	55.1-	121+	38	3.5+	TA
VA18HRW-58	112.5	58.3+	122+	40	3.2+	A
AgriMAXX 535	112.2	57.8+	121+	34	-0.0	A
19VTK5-167	112.0	55.8-	120	33-	1.8	A
USG 3363	111.8	56.9	119	38	0.5	A
15VTK-1-101	111.7	56.9	121+	32-	0.2	A
DH19SRW09-073	111.6	56.5	118-	41+	1.0	TA
EPIX 3498	111.5	56.4	121+	36	0.7	A
Revere 2277	111.4	56.4	121+	35	-0.0	A
MAS #86	111.3	55.2-	119	41+	1.0	A
Dyna-Gro 9120	111.2	58.1+	119	35	-0.0	A
DH19SRW08-020	110.9	57.8+	117-	35	0.5	A
mean	109.8	56.6	119	37	1.0	NA
LSD	19.0	0.6	1	3	1.6	NA
CV	12.4	0.7	0	4	118.2	NA

continued ...

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.
FHB = Fusarium Head Blight Score (0-9)
FDK = Fusarium Diseased Kernels (percent)
DON = Deoxynivalenol concentration in the kernels (ppm)
Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Awns
USG 3884	110.7	56.1	120	33-	0.5	A
Featherstone 3000	110.7	57.5+	119	37	0.3	AL
VA22FHB-90	110.7	57.6+	121+	40	2.0	TA
Dyna-Gro 9422	110.5	55.7-	120	38	1.3	A
AgriMAXX 503	110.4	55.9-	120	38	2.0	AL
VA22W-201	110.4	57.8+	118-	34	1.7	A
VT Pitman	110.3	57.5+	118-	34	0.5	A
HILLIARD	110.2	56.6	118-	39	-0.0	A
VA20W-135	109.9	57.0	119	41+	0.7	A
Dyna-Gro 9553	109.9	56.3	121+	35	-0.0	A
MAS #133	109.8	54.4-	120	38	0.5	A
VA20FHB-20	109.7	58.3+	119	37	-0.0	A
USG 3574	109.6	54.8-	120	34-	1.5	AL
GA131246LDH-86-21E2	109.5	56.7	121+	37	0.5	A
MAS #189	109.1	57.8+	116-	40	3.7+	A
CP8045	108.9	56.0-	120	38	0.7	A
MERL	108.9	57.9+	118-	37	0.2	TA
DH19SRW08-001	108.9	56.6	121+	35	1.2	TA
18VDH-FHB-MAS07-173-03	108.7	56.9	118-	40	3.7+	A
VA21W-112	108.4	55.5-	119	35	0.2	A
AgriMAXX 516	107.9	55.7-	120	37	0.5	A
VA21W-39	107.8	56.3	119	40	1.2	A
Dyna-Gro 9151	107.6	57.3+	120	39	0.7	A
MAS #190	107.6	56.9	121+	34-	0.0	A
17VDH-SRW01-077	107.5	57.9+	116-	40	0.2	A
KWS527	107.5	56.2	120	38	1.0	A
MAS #228	107.3	56.5	121+	37	0.7	A
Southern Harvest 4222	107.0	56.7	120	38	0.7	A
Revere 2347	107.0	57.1	119	38	0.5	A
VA19HRW-17	106.9	57.3+	123+	36	0.0	A
AgriMAXX 525	106.9	56.1	121+	33-	0.5	A
26R45	106.8	55.3-	119	40	2.0	AL
Dyna-Gro Shirley	106.7	55.9-	119	35	0.5	TA
17VDH-SRW02-125	106.7	57.7+	121+	37	0.2	A
mean	109.8	56.6	119	37	1.0	NA
LSD	19.0	0.6	1	3	1.6	NA
CV	12.4	0.7	0	4	118.2	NA

continued ...

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.
FHB = Fusarium Head Blight Score (0-9)
FDK = Fusarium Diseased Kernels (percent)
DON = Deoxynivalenol concentration in the kernels (ppm)
Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Awns
Dyna-Gro 9393	106.5	56.4	121+	35	0.3	A
VA22W-196	106.2	56.0-	116-	35	1.0	TA
MAS #316	106.1	56.2	121+	40	1.2	A,AL
GA15490ID-19-5-21LE2	105.9	57.3+	121+	37	0.2	A
19VDH-FHB-MAS01-29	105.8	55.1-	120	31-	0.0	A
USG 3451	105.7	57.7+	118-	37	3.5+	AL
Dyna-Gro 9290	105.5	56.7	119-	37	-0.0	A
AgriMAXX 513	105.4	56.3	120	37	0.2	A
EPIX 1365	105.1	55.0-	119	36	-0.0	A
GA141045-9-3-2-21LE7	105.0	58.5+	121+	39	0.5	A
19VDH-FHB-MAS03-29	104.9	56.2	119	36	0.5	TA
18VTK12-111	104.8	56.8	121+	36	-0.0	TA
NC14757LDH-44	104.8	56.9	118-	36	2.0	TA
MAS #67	104.5	55.3-	118-	37	0.7	AL
18VTK10-5	104.3	58.0+	120	36	0.2	A
26R59	104.1	55.8-	119-	33-	0.2	TA
EPIX 4372	104.0	56.1	120	36	0.5	A
NC11546-14	104.0	58.5+	118-	39	2.8+	A
GANC12915-167-21E3	103.9	57.2+	119	37	0.7	TA
GP 381	103.8	55.4-	118-	35	0.2	AL
AgriMAXX 544	103.7	55.4-	119-	37	0.3	TA
AGS 4043	103.7	57.5+	120	34	0.3	A
19VDH-FHB-MAS02-06	103.7	56.6	121+	35	-0.0	A
15VDH-FHB-MAS25-15	103.4	57.1	118-	36	-0.0	A
UMD-VTWVT24-1	103.2	57.3+	120	36	0.5	A
InSpire FS 855	103.0	56.0-	120	38	0.2	A
18VTK6-3	102.9	57.6+	120+	37	0.2	A
UMD-VTWVT24-2	102.8	57.8+	120	36	0.8	TA
CP8024	102.5	57.5+	121+	34	0.7	AL
AgriMAXX 505	102.3	57.5+	120	37	2.3	A
NC16VT30-7-47	101.7	58.0+	117-	36	2.2	TA
18VTK15-27	101.5	54.5-	115-	37	6.2+	TA
Southern Harvest 7200	101.2	57.2+	117-	40	1.7	A
UMD-VTWVT24-3	100.2	56.7	119	36	2.2	TA
mean	109.8	56.6	119	37	1.0	NA
LSD	19.0	0.6	1	3	1.6	NA
CV	12.4	0.7	0	4	118.2	NA

continued ...

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.
FHB = Fusarium Head Blight Score (0-9)
FDK = Fusarium Diseased Kernels (percent)
DON = Deoxynivalenol concentration in the kernels (ppm)
Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Awns
18VTK5-95	99.3	57.1	119	33-	0.7	AL
EPIX 1375	99.0	57.8+	116-	38	2.0	TA
NC15305-43	99.0	57.2	119	37	0.5	A
MAS #2	98.9	56.9	120+	46+	5.0+	TA
VA19W-29	98.4	56.7	119	41+	0.7	A
MAS #225	98.3	55.5-	121+	35	-0.0	A
Phoenix 96	98.2	57.4+	121+	40	0.5	A
KWS525	96.6	55.9-	121+	33-	-0.0	A
MAS #106	96.0	56.3	113-	36	3.5+	TA
VA20HRW-50	95.2	57.3+	121+	41+	0.5	A
17VTK18-13	94.7	55.4-	121+	37	0.2	A
KWS542	94.6	57.1	119	40	1.0	A
VA19FHB-36	94.1	57.4+	119	41+	0.2	A
NC20-21971	92.6	58.0+	118-	40	3.0+	TA
AGS 3026	85.5-	57.2	123+	37	0.5	A
15VTK-1-101-BS112	85.3-	54.5-	121+	34	-0.0	TA
MASSEY	82.0-	57.2	118-	41+	3.2+	TA
mean	109.8	56.6	119	37	1.0	NA
LSD	19.0	0.6	1	3	1.6	NA
CV	12.4	0.7	0	4	118.2	NA

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 5: Virginia state soft winter wheat official variety test in Blackstone, VA in 2024.

Line	Grain Yield bu/ac	Test Weight lb/bu	Powdery Mildew 0-9	Leaf Rust 0-9	BYDV 0-9	Awns A-TA-AL
17VDH-SRW02-125	79.3	60.9+	0.0	-0.1	2	A
VA20FHB-18	79.0	59.6	0.5	0.2	3	A
19VTK7-66	77.8	59.1	0.5	0.1	3	A
18VTK10-5	76.1	60.7+	1.0	0.0	1-	A
USG 3463	74.5	57.4	1.5	1.4	4	A
VA20FHB-20	73.9	60.8+	0.5	0.2	4	A
MAS #86	73.9	56.9-	2.5	0.1	2	A
26R33	73.8	58.4	0.5	0.7	5+	A
USG 3352	73.8	57.5	2.5	0.1	2	A
Southern Harvest 5123	73.5	59.6+	2.0	0.2	3	AL
GA15490ID-19-5-21LE2	73.3	58.9	1.5	0.7	2	A
Southern Harvest 9520	73.2	58.4	0.0	0.7	4	A
18VTK10-23	73.1	61.1+	2.5	0.1	1-	A
Dyna-Gro 9553	73.0	57.6	2.0	0.1	3	A
Dyna-Gro 9551	72.9	55.7-	3.0+	5.2+	6+	A
AGS 4043	72.5	58.9	-0.0	0.7	2	A
Revere 2277	72.0	58.8	-0.0	1.3	2	A
InSpire FS 855	71.9	58.0	1.5	0.7	4	A
Dyna-Gro 9593	71.5	57.4	2.5	2.1	6+	A
VA18HRW-58	71.4	60.1+	1.0	0.1	2	A
VT Pitman	71.3	59.6+	-0.0	0.1	2	A
Phoenix 29	70.9	59.2	1.0	0.4	2	A
18VTK10-110	70.8	61.1+	-0.0	0.2	1-	A
Southern Harvest 7200	70.8	59.4	2.5	-0.0	4	A
Dyna-Gro 9393	70.6	58.0	3.5+	0.3	4	A
AgriMAXX 545	70.5	55.7-	1.0	2.7	4	A
NC14757LDH-44	70.4	59.2	-0.0	0.0	1-	TA
MAS #225	70.4	57.7	1.5	0.3	3	A
InSpire FS 745	70.3	56.2-	2.5	0.1	3	A
Dyna-Gro 9120	70.1	59.6+	1.5	0.7	2	A
USG 3472	70.1	55.7-	3.0+	1.1	4	A
mean	64.6	58.4	1.4	0.9	4	NA
LSD	16.0	1.2	1.5	2.5	2	NA
CV	15.7	1.4	52.6	142.5	25	NA

continued ...

A plus or minus sign indicates a performance significantly above or below the test average.
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FHB = Fusarium Head Blight Score (0-9)
FDK = Fusarium Diseased Kernels (percent)
DON = Deoxynivalenol concentration in the kernels (ppm)
Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Powdery Mildew	Leaf Rust	BYDV	Awns
Revere 2347	70.1	58.1	2.0	1.3	4	A
KWS542	69.6	58.3	1.0	1.3	4	A
KWS527	68.9	57.9	1.5	0.1	5	A
Dyna-Gro 9231	68.8	58.1	2.0	1.7	5	A
MAS #227	68.7	56.9-	1.0	0.3	4	A
Southern Harvest 7222	68.5	60.1+	0.5	0.1	1-	A
AgriMAXX 535	68.4	59.2	2.0	1.0	4	A
Dyna-Gro 9570	68.3	56.3-	2.5	0.7	6+	A
DH19SRW07-321	68.2	58.4	0.0	0.1	1-	A
Phoenix 96	68.1	58.3	-0.0	0.2	3	A
MBX 127	68.0	56.9-	3.0+	2.1	4	A
USG 3673	68.0	59.9+	2.5	0.1	2	AL
KWS543	68.0	57.8	2.5	2.0	3	A
NC11546-14	67.8	60.7+	-0.0	0.1	4	A
EPIX 4372	67.8	57.1-	2.5	1.4	5	A
Liberty 5658	67.8	59.1	2.0	1.1	2	A
GA151313-LDH-192 -20E48	67.7	59.8+	1.0	0.3	2	A
DH19SRW09-073	67.6	57.5	2.5	1.1	5	AL
EPIX 1375	67.2	59.5	0.0	0.2	5	AL
USG 3451	67.1	58.3	2.0	0.1	2	AL
AgriMAXX 525	67.1	58.9	2.5	2.3	4	A
MAS #228	66.9	57.7	1.5	1.4	5+	A
VA19FHB-36	66.5	60.3+	1.0	0.3	4	A
NC18-16900	66.5	60.7+	0.0	0.1	2	AL
CP8045	66.3	55.7-	1.5	0.1	4	A
VA22W-21	66.3	57.7	1.0	0.0	5	A
MAS #139	66.3	56.9-	3.5+	2.4	3	A
AgriMAXX 516	66.2	56.5-	2.5	1.7	6+	A
USG 3884	66.2	58.4	3.0+	1.1	5	A
VA20W-142	66.1	58.4	-0.0	0.3	3	AL
AgriMAXX EXP 2404	66.0	58.4	2.0	1.0	4	A
VA19HRW-17	65.8	59.2	0.5	0.1	4	A
EPIX 3489	65.8	58.9	3.0+	0.3	4	A
Southern Harvest 4222	65.7	57.0-	1.5	1.4	5+	A
mean	64.6	58.4	1.4	0.9	4	NA
LSD	16.0	1.2	1.5	2.5	2	NA
CV	15.7	1.4	52.6	142.5	25	NA

continued ...

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.
FHB = Fusarium Head Blight Score (0-9)
FDK = Fusarium Diseased Kernels (percent)
DON = Deoxynivalenol concentration in the kernels (ppm)
Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Powdery Mildew	Leaf Rust	BYDV	Awns
USG 3363	65.7	55.8-	3.0+	1.2	3	A
18VTK6-3	65.7	59.6+	-0.0	0.3	1-	A
DH19SRW07-309	65.6	58.1	-0.0	1.7	2	A
17VDH-SRW01-077	65.3	60.5+	-0.0	-0.1	5+	A
18VDH-FHB-MAS07-173-03	65.0	58.8	-0.0	0.2	5+	A
MAS #316	65.0	57.1-	2.0	2.1	6+	A
MAS #133	65.0	55.0-	2.0	0.9	6+	A
15VDH-FHB-MAS25-15	64.8	59.9+	0.0	0.1	2	A
NC20-21971	64.8	61.1+	0.0	-0.1	1-	TA
USG 3354	64.6	57.1-	1.0	0.7	3	AL
EPIX 4480	64.5	58.6	3.0+	0.1	3	A
EPIX 3498	64.5	57.7	1.0	1.4	3	A
InSpire FS 891	64.3	58.9	2.5	0.7	4	A
Dyna-Gro 9422	64.3	56.6-	2.0	2.9	4	A
Dyna-Gro 9290	64.1	57.7	3.0+	1.4	7+	A
AgriMAXX 513	63.8	57.9	-0.0	1.4	3	A
19VDH-FHB-MAS02-06	63.8	59.4	0.5	1.0	3	A
Dyna-Gro 9172	63.5	55.9-	2.5	3.3	5+	A
MBX 230	63.4	57.8	1.5	1.4	6+	A
GA141045-9-3-2-21LE7	63.4	60.5+	-0.0	-0.1	3	A
VA22FHB-90	63.2	59.5	-0.0	-0.0	3	AL
UMD-VTWVT24-2	63.2	59.8+	-0.0	0.1	4	AL
MAS #226	63.0	57.5	2.5	-0.0	6+	A
AGS 3026	62.5	60.4+	3.0+	2.7	1-	A
AgriMAXX 544	62.2	57.2-	3.5+	0.3	4	AL
18VTK12-111	62.2	60.6+	-0.0	-0.0	2	TA
InSpire FS 743	61.9	58.3	2.5	-0.0	3	A
GA131246LDH-86-21E2	61.8	57.4	3.5+	0.4	4	A
EPIX 1365	61.6	56.8-	0.5	0.2	7+	A
MAS #2	61.5	60.3+	2.5	3.7+	2	AL
VA20W-135	61.3	59.8+	2.0	0.4	2	A
Revere 2169	61.2	56.5-	1.5	1.7	2	A
19VTK5-167	61.1	57.3	3.0+	-0.1	3	A
Featherstone 3000	61.0	59.7+	3.0+	0.4	5+	AL
mean	64.6	58.4	1.4	0.9	4	NA
LSD	16.0	1.2	1.5	2.5	2	NA
CV	15.7	1.4	52.6	142.5	25	NA

continued ...

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.
FHB = Fusarium Head Blight Score (0-9)
FDK = Fusarium Diseased Kernels (percent)
DON = Deoxynivalenol concentration in the kernels (ppm)
Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Powdery Mildew	Leaf Rust	BYDV	Awns
VA21W-39	60.4	58.4	-0.0	1.0	4	A
MERL	60.4	59.7+	-0.0	0.7	5	TA
NC15305-43	60.3	60.8+	3.5+	-0.1	1-	A
MAS #190	60.2	57.3	3.0+	1.9	2	A
InSpire FS 747	60.1	56.9-	2.5	0.3	5	AL
GP 543	59.9	58.3	-0.0	0.2	4	AL
VA19W-29	59.9	58.3	0.0	1.1	3	A
VA22W-196	59.4	56.6-	2.5	0.2	4	AL
18VTK5-95	59.4	61.2+	-0.0	-0.1	2	AL
CP8024	59.4	59.4	4.0+	0.7	3	AL
MAS #155	59.4	55.5-	1.0	6.1+	3	A
VA22W-201	59.4	60.1+	1.0	0.7	3	A
Dyna-Gro 9151	59.2	59.1	2.5	1.2	5	A
Dyna-Gro Shirley	59.0	57.8	-0.0	-0.1	4	TA
VA20HRW-50	59.0	59.7+	0.5	-0.1	2	A
15VTK-1-101	58.9	60.0+	0.0	0.1	3	A
17VTK4-29	58.8	59.9+	-0.0	-0.0	3	AL
UMD-VTWVT24-3	58.5	61.0+	-0.0	0.1	5	AL
DH17SRW136-066	58.5	58.4	-0.0	1.0	4	TA
UMD-VTWVT24-1	58.4	60.3+	2.5	-0.1	4	A
16VDH-SRW03-023	58.2	59.4	1.0	0.1	3	TA
HILLIARD	57.5	59.2	1.5	0.2	5	A
VA21W-112	57.1	57.8	2.0	1.1	4	A
DH20SRW02-073	57.0	59.6+	-0.0	0.1	2	AL
NC16VT30-7-47	56.8	60.6+	-0.0	0.1	1-	TA
VA19MAS7-519-1WS-R110	56.6	61.4+	-0.0	0.7	4	A
AgriMAXX 505	56.5	59.2	1.5	1.2	4	A
19VDH-FHB-MAS05-27	56.5	57.4	1.5	1.9	2	AL
DH19SRW08-020	56.0	59.0	-0.0	0.1	2	A
19VDH-FHB-MAS01-29	55.5	56.9-	-0.0	0.7	3	A
USG 3661	54.8	60.3+	0.5	1.1	5	AL
USG 3574	54.6	53.3-	-0.0	4.4+	1-	AL
MAS #189	53.4	59.2	5.5+	2.0	2	M
MAS #178	53.1	58.4	1.0	0.1	2	AL
mean	64.6	58.4	1.4	0.9	4	NA
LSD	16.0	1.2	1.5	2.5	2	NA
CV	15.7	1.4	52.6	142.5	25	NA

continued ...

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.
FHB = Fusarium Head Blight Score (0-9)
FDK = Fusarium Diseased Kernels (percent)
DON = Deoxynivalenol concentration in the kernels (ppm)
Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Powdery Mildew	Leaf Rust	BYDV	Awns
Dyna-Gro 9533	53.1	53.8-	-0.0	4.7+	2	AL
26R45	52.3	56.8-	2.5	0.7	5	AL
GANC12915-167-21E3	52.2	59.3	-0.0	0.4	2	AL
KWS525	52.1	57.3	-0.0	2.0	6+	A
18VTK18-112	51.8	58.5	2.5	0.9	3	AL
17VTK18-13	51.6	57.1-	1.0	0.1	3	A
GP 381	49.5	57.4	0.5	0.2	1-	AL
15VTK-1-101-BS112		56.6-	-0.0	0.4	5+	AL
18VTK15-27		56.3-	-0.0	0.1	3	TA
19VDH-FHB-MAS03-29		58.8	0.5	0.2	2	AL
26R59		58.8	2.0	0.4	5+	AL
AgriMAXX 503		58.9	3.0+	1.3	6+	AL
DH19SRW08-001		57.1-	-0.0	0.7	5	AL
KWS529		56.5-	3.5+	0.9	3	AL
MAS #106		58.5	5.0+	0.0	3	TA
MAS #67		55.9-	4.0+	4.1+	5+	AL
MASSEY		59.3	0.5	7.4+	6+	TA
mean	64.6	58.4	1.4	0.9	4	NA
LSD	16.0	1.2	1.5	2.5	2	NA
CV	15.7	1.4	52.6	142.5	25	NA

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 6: Virginia state soft winter wheat official variety test in Holland, VA in 2024. Excessive deer damage were observed at this location. This location was not included in the over location analysis.

Line	Grain Yield bu/ac	Test Weight lb/bu
KWS527	96.7+	52.6
18VTK10-23	96.2+	55.6
Southern Harvest 5123	95.6+	53.5
Dyna-Gro 9172	95.4+	52.8
VA20FHB-18	94.1+	53.6
USG 3463	94.0+	52.1
MAS #226	93.2+	51.9
Revere 2347	93.2+	53.1
EPIX 4372	92.5+	54.6
AgriMAXX EXP 2404	92.2+	53.5
Dyna-Gro 9570	92.2+	50.7
18VTK10-5	91.8+	53.9
EPIX 3498	91.4+	55.1
17VDH-SRW02-125	91.2+	52.6
Dyna-Gro 9593	91.1+	50.0
CP8045	91.0+	52.8
USG 3472	90.8	53.6
Dyna-Gro 9551	90.7	55.4
NC15305-43	90.4	55.1
MAS #227	90.2	53.4
26R33	90.1	56.2
Dyna-Gro 9120	90.0	53.3
VA22W-201	89.9	57.2
MAS #228	89.7	52.2
Dyna-Gro 9553	89.6	55.4
Dyna-Gro 9422	89.3	51.5
NC11546-14	89.2	52.3
mean	79.2	52.2
LSD	11.7	6.4
CV	10.0	8.1

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

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Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight
AgriMAXX 525	89.0	52.6
MAS #190	89.0	53.3
Revere 2169	88.6	52.5
MAS #86	88.2	53.8
VA20FHB-20	88.0	54.4
KWS542	87.6	56.0
Southern Harvest 7222	87.4	52.5
USG 3673	87.4	50.3
Dyna-Gro 9290	87.3	51.0
InSpire FS 745	87.0	51.9
InSpire FS 743	87.0	64.9+
18VTK6-3	86.9	52.8
18VTK12-111	86.9	51.6
Dyna-Gro 9231	86.8	56.0
VA19W-29	86.3	54.1
USG 3352	86.3	52.8
Phoenix 96	86.1	53.2
19VDH-FHB-MAS05-27	85.7	51.2
AgriMAXX 516	85.4	52.3
KWS543	85.3	52.4
18VTK10-110	85.2	54.3
Revere 2277	85.1	51.1
AgriMAXX 505	85.0	53.3
MBX 230	85.0	52.5
EPIX 3489	84.9	53.2
NC14757LDH-44	84.7	53.0
Dyna-Gro 9393	84.6	51.0
Southern Harvest 4222	84.4	52.1
Liberty 5658	84.3	54.6
AgriMAXX 545	84.3	52.0
19VTK7-66	84.1	54.9
EPIX 4480	84.0	51.7
mean	79.2	52.2
LSD	11.7	6.4
CV	10.0	8.1

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight
AgriMAXX 513	84.0	52.2
MAS #225	83.8	52.7
MAS #155	83.8	50.4
AgriMAXX 535	83.8	53.2
MAS #139	83.4	52.2
MBX 127	82.9	51.9
17VDH-SRW01-077	82.2	53.1
USG 3884	81.9	50.4
GA151313-LDH-192 -20E48	81.9	53.1
GA131246LDH-86-21E2	81.9	50.6
Southern Harvest 9520	81.4	53.6
15VTK-1-101	81.1	52.3
Phoenix 29	81.0	54.1
DH19SRW07-309	80.5	52.0
KWS525	80.4	50.4
AGS 4043	80.4	58.3
InSpire FS 891	80.3	53.3
19VTK5-167	80.3	51.6
EPIX 1365	80.1	50.9
VA21W-112	80.0	51.4
DH17SRW136-066	79.8	51.3
15VDH-FHB-MAS25-15	79.5	51.9
VA18HRW-58	79.5	52.0
18VTK18-112	79.2	51.9
VA20HRW-50	79.2	58.4
18VDH-FHB-MAS07-173-03	79.1	52.2
Dyna-Gro 9151	78.7	50.9
NC18-16900	78.2	52.0
VA22W-21	78.2	51.1
VA20W-142	77.9	50.8
AGS 3026	77.8	50.5
VA19HRW-17	77.7	53.5
mean	79.2	52.2
LSD	11.7	6.4
CV	10.0	8.1

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight
USG 3363	77.4	53.8
InSpire FS 855	77.4	51.7
UMD-VTWVT24-1	77.4	52.2
DH19SRW07-321	77.3	51.9
Southern Harvest 7200	76.7	52.1
VA19FHB-36	76.7	51.7
MAS #133	76.3	50.3
VA20W-135	76.3	50.0
MAS #316	75.6	51.2
GA15490ID-19-5-21LE2	75.3	51.4
15VTK-1-101-BS112	74.9	50.5
GANC12915-167-21E3	74.6	53.4
NC16VT30-7-47	74.4	50.3
NC20-21971	73.9	49.1
VA19MAS7-519-1WS-R110	73.8	49.2
VT Pitman	73.7	53.1
Featherstone 3000	73.4	50.0
GA141045-9-3-2-21LE7	72.9	48.7
19VDH-FHB-MAS02-06	72.9	52.6
USG 3661	72.8	50.3
19VDH-FHB-MAS01-29	72.8	49.6
Dyna-Gro Shirley	72.7	54.3
DH19SRW08-020	72.7	49.0
16VDH-SRW03-023	72.6	49.3
DH20SRW02-073	72.6	50.9
17VTK18-13	71.3	51.0
GP 543	70.5	48.5
18VTK15-27	70.5	49.0
26R59	69.4	48.1
HILLIARD	69.3	51.5
USG 3354	68.1	48.8
MAS #189	67.7	49.3
mean	79.2	52.2
LSD	11.7	6.4
CV	10.0	8.1

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight
MAS #2	67.3-	52.1
VA21W-39	67.1-	47.0
USG 3574	66.9-	48.1
DH19SRW08-001	66.2-	48.3
VA22W-196	65.9-	50.7
UMD-VTWVT24-2	65.5-	47.5
MASSEY	64.7-	51.5
MERL	64.3-	56.4
MAS #67	64.2-	44.9-
CP8024	64.0-	52.4
VA22FHB-90	63.8-	46.3
Dyna-Gro 9533	63.3-	46.1
17VTK4-29	62.8-	53.4
19VDH-FHB-MAS03-29	62.6-	64.5+
18VTK5-95	61.4-	58.5+
EPIX 1375	61.0-	44.4-
DH19SRW09-073	60.8-	67.0+
USG 3451	59.2-	
UMD-VTWVT24-3	56.2-	42.0-
AgriMAXX 503	55.7-	40.8-
26R45	54.4-	
GP 381	54.2-	
KWS529	52.4-	
MAS #106	52.0-	
AgriMAXX 544		
InSpire FS 747		
MAS #178		
mean	79.2	52.2
LSD	11.7	6.4
CV	10.0	8.1

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 7: Virginia state soft winter wheat official variety test in Orange, VA in 2024.

Line	Grain Yield bu/ac	Test Weight lb/bu
NC18-16900	125.1+	61.2
18VTK10-23	124.4+	62.8+
18VTK18-112	124.1+	60.0
VA22W-196	122.6+	60.7
Revere 2169	122.0+	60.1
VA20W-142	121.5+	61.1
InSpire FS 891	120.4+	61.2
USG 3463	120.1+	59.8
Revere 2347	119.6+	60.2
AgriMAXX 544	119.6+	60.1
DH19SRW08-020	119.1	61.8
Dyna-Gro 9533	118.8	58.1-
16VDH-SRW03-023	118.2	60.7
USG 3673	117.8	61.5
USG 3574	117.2	58.6-
Dyna-Gro 9151	117.1	61.5
Liberty 5658	116.9	61.6
MAS #226	116.8	60.2
MAS #155	116.6	60.0
MBX 127	115.7	60.1
Revere 2277	115.6	60.6
NC15305-43	114.8	62.2+
EPIX 4372	114.3	60.1
USG 3451	114.3	60.3
19VTK5-167	114.0	60.2
Dyna-Gro 9551	113.8	57.9-
Dyna-Gro 9172	113.4	59.1
Dyna-Gro 9570	113.2	58.6-
USG 3363	112.8	59.8
mean	103.4	60.3
LSD	16.2	1.5
CV	11.2	1.7

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

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Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight
InSpire FS 745	112.5	60.0
DH19SRW07-321	112.4	61.2
USG 3661	112.3	61.0
AgriMAXX 545	112.3	59.0
AgriMAXX 516	111.7	59.7
Dyna-Gro 9290	111.7	60.6
MAS #228	111.2	59.8
InSpire FS 747	111.2	59.6
Dyna-Gro 9553	110.9	59.8
MAS #189	110.7	60.3
MAS #86	110.7	59.5
Southern Harvest 5123	110.5	61.2
AgriMAXX 505	110.4	61.7
MAS #190	109.9	60.6
VA20FHB-18	109.8	61.7
MAS #225	109.3	60.0
AGS 4043	109.0	60.9
Dyna-Gro 9393	108.6	59.5
VA20W-135	108.5	61.4
VT Pitman	108.4	61.7
AgriMAXX EXP 2404	107.9	58.9
18VTK6-3	107.9	61.7
MAS #139	107.7	59.3
Southern Harvest 4222	107.6	59.9
Southern Harvest 7200	107.6	60.9
AGS 3026	107.6	61.7
DH19SRW07-309	107.3	61.4
USG 3472	106.8	59.6
Southern Harvest 7222	106.5	62.1+
MAS #106	106.3	60.6
19VDH-FHB-MAS03-29	106.2	60.9
KWS542	106.1	61.4
mean	103.4	60.3
LSD	16.2	1.5
CV	11.2	1.7

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight
VA22W-21	106.0	59.3
17VDH-SRW02-125	106.0	60.0
USG 3354	105.7	59.8
UMD-VTWVT24-2	105.3	61.1
GA15490ID-19-5-21LE2	105.1	60.8
Southern Harvest 9520	105.0	60.5
InSpire FS 743	105.0	60.2
GP 381	104.9	60.0
CP8045	104.9	59.4
NC16VT30-7-47	104.8	61.7
MAS #178	104.7	59.5
Featherstone 3000	104.1	61.4
18VTK10-5	104.0	62.0+
Phoenix 29	103.9	61.3
VA19W-29	103.3	60.7
USG 3352	103.0	60.6
AgriMAXX 513	102.7	58.7-
EPIX 4480	102.7	59.7
26R45	102.7	59.6
Dyna-Gro 9120	101.9	61.8+
CP8024	101.7	62.5+
18VTK5-95	101.7	62.3+
VA20FHB-20	101.6	61.9+
InSpire FS 855	101.6	59.2
Dyna-Gro 9422	101.5	59.3
18VDH-FHB-MAS07-173-03	100.8	59.6
18VTK10-110	100.6	61.1
MAS #227	100.6	59.9
26R33	100.6	60.6
KWS527	100.1	59.6
VA22W-201	99.9	61.3
VA21W-39	99.7	60.3
mean	103.4	60.3
LSD	16.2	1.5
CV	11.2	1.7

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight
AgriMAXX 525	99.6	59.7
GA151313-LDH-192 -20E48	99.6	59.7
GP 543	99.4	57.4-
MAS #67	99.3	58.3-
Dyna-Gro Shirley	99.3	58.7-
USG 3884	99.0	59.7
DH19SRW09-073	98.8	60.8
MBX 230	98.7	58.9
Dyna-Gro 9593	98.4	59.5
18VTK15-27	98.3	57.6-
VA22FHB-90	98.2	60.8
KWS529	98.2	58.4-
EPIX 3489	97.9	61.1
EPIX 1375	97.7	62.3+
EPIX 3498	97.3	60.1
26R59	97.2	58.5-
DH20SRW02-073	96.9	60.4
17VDH-SRW01-077	96.7	60.4
Phoenix 96	96.7	60.4
19VDH-FHB-MAS01-29	96.7	59.3
Dyna-Gro 9231	96.6	60.2
VA18HRW-58	96.6	62.1+
VA19FHB-36	96.5	61.9+
GA131246LDH-86-21E2	96.2	59.5
NC14757LDH-44	95.8	60.3
17VTK4-29	95.7	59.4
GANC12915-167-21E3	95.7	60.9
MAS #2	95.0	61.3
NC20-21971	94.8	61.8
19VTK7-66	94.4	59.2
AgriMAXX 535	94.2	61.4
KWS543	93.9	60.1
mean	103.4	60.3
LSD	16.2	1.5
CV	11.2	1.7

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight
AgriMAXX 503	93.4	59.6
UMD-VTWVT24-3	93.0	60.8
VA21W-112	92.6	60.5
NC11546-14	92.4	61.7
VA19MAS7-519-1WS-R110	92.1	62.0+
EPIX 1365	91.9	58.5-
15VDH-FHB-MAS25-15	91.9	61.8+
DH17SRW136-066	91.9	58.5-
15VTK-1-101	90.9	61.5
DH19SRW08-001	90.3	60.1
VA19HRW-17	89.8	60.9
MAS #316	89.4	60.5
MAS #133	89.2	57.4-
18VTK12-111	88.8	61.3
19VDH-FHB-MAS05-27	88.4	58.1-
19VDH-FHB-MAS02-06	87.9	61.8
17VTK18-13	86.2-	59.9
KWS525	84.5-	58.0-
GA141045-9-3-2-21LE7	83.9-	60.3
VA20HRW-50	83.1-	60.4
MERL	81.1-	60.0
UMD-VTWVT24-1	80.6-	61.0
HILLIARD	80.2-	60.6
MASSEY	79.5-	59.4
15VTK-1-101-BS112	71.6-	59.6
mean	103.4	60.3
LSD	16.2	1.5
CV	11.2	1.7

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 8: Virginia state soft winter wheat official variety test in Painter, VA in 2024.

Line	Grain Yield bu/ac	Test Weight lb/bu	Leaf Rust 0-9
VA21W-112	98.7+	54.9	-0.0-
USG 3673	98.4+	52.5	0.0-
GP 543	96.8+	53.7	1.0
VT Pitman	93.2+	57.4	-0.0-
18VTK6-3	93.1+	53.8	0.0-
USG 3354	92.9	53.2	1.5
Dyna-Gro Shirley	92.8	54.5	0.0-
Southern Harvest 5123	92.2	52.8	-0.0-
AGS 4043	92.2	55.3	0.0-
EPIX 1375	92.0	54.9	-0.0-
GANC12915-167-21E3	91.7	54.3	-0.0-
NC16VT30-7-47	91.6	55.2	-0.0-
Southern Harvest 7200	91.3	56.0	-0.0-
MAS #226	91.0	52.9	0.0-
VA20FHB-18	90.8	53.4	-0.0-
VA22W-201	90.6	56.5	0.0-
HILLIARD	90.3	54.1	-0.0-
NC15305-43	90.3	55.7	-0.0-
19VDH-FHB-MAS01-29	90.0	52.2	-0.0-
Dyna-Gro 9290	89.6	54.4	1.0
InSpire FS 747	89.0	52.0	-0.0-
GA15490ID-19-5-21LE2	88.6	55.8	0.5
Dyna-Gro 9393	88.4	56.0	1.5
15VTK-1-101	88.3	54.4	-0.0-
VA20FHB-20	87.7	56.0	3.5+
NC20-21971	87.5	55.0	-0.0-
Dyna-Gro 9553	87.4	55.3	-0.0-
15VDH-FHB-MAS25-15	86.8	54.2	-0.0-
AgriMAXX 544	86.6	52.7	0.5
MAS #86	86.5	52.4	3.5+
mean	77.6	52.6	1.6
LSD	15.3	6.5	1.3
CV	13.8	7.4	41.0
continued ...			

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Leaf Rust
VA20W-135	86.5	56.7	0.0-
VA22W-21	86.5	52.4	-0.0-
InSpire FS 855	86.2	53.5	0.5
18VDH-FHB-MAS07-173-03	86.0	51.4	-0.0-
19VDH-FHB-MAS05-27	85.8	53.6	0.5
19VDH-FHB-MAS03-29	84.9	53.9	-0.0-
UMD-VTWVT24-2	84.8	51.1	-0.0-
EPIX 4480	84.7	54.2	2.5
UMD-VTWVT24-1	84.5	53.1	0.5
VA22W-196	84.1	50.9	-0.0-
USG 3451	83.9	52.9	0.5
AGS 3026	83.6	51.4	-0.0-
GA131246LDH-86-21E2	83.4	53.8	-0.0-
USG 3661	83.3	55.0	0.0-
UMD-VTWVT24-3	82.7	53.5	0.5
17VDH-SRW01-077	82.4	55.9	-0.0-
19VTK5-167	82.2	59.6+	0.5
GA141045-9-3-2-21LE7	81.9	51.0	0.5
MAS #225	81.6	52.1	3.0+
AgriMAXX EXP 2404	81.3	54.5	2.5
USG 3463	81.3	53.3	2.0
DH20SRW02-073	81.3	53.0	-0.0-
VA19FHB-36	81.2	56.0	-0.0-
DH19SRW07-321	81.2	53.8	0.5
18VTK10-110	81.2	55.2	-0.0-
Dyna-Gro 9593	81.1	53.7	0.5
17VTK4-29	81.0	50.3	0.0-
Phoenix 96	80.7	55.0	0.5
18VTK10-23	80.5	56.1	-0.0-
VA18HRW-58	80.3	52.7	-0.0-
18VTK10-5	80.0	52.6	-0.0-
KWS543	79.8	52.4	2.5
Liberty 5658	79.4	51.9	0.5
mean	77.6	52.6	1.6
LSD	15.3	6.5	1.3
CV	13.8	7.4	41.0

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Leaf Rust
Featherstone 3000	79.3	54.2	0.0-
GA151313-LDH-192 -20E48	79.3	54.1	-0.0-
MAS #178	79.2	52.2	2.0
17VDH-SRW02-125	79.1	52.3	0.0-
USG 3884	78.8	52.7	0.0-
Phoenix 29	78.4	55.9	0.5
Southern Harvest 9520	78.4	54.9	1.5
VA20W-142	77.7	55.4	-0.0-
USG 3363	77.4	53.1	4.0+
MAS #227	77.3	52.2	2.5
MERL	77.2	50.2	3.0+
GP 381	77.1	53.0	1.5
MAS #67	77.0	51.4	2.0
VA19HRW-17	76.9	48.3	1.0
EPIX 3498	76.9	56.0	4.0+
26R59	76.7	50.5	4.0+
VA21W-39	76.7	53.2	0.5
USG 3352	76.5	52.6	2.5
19VDH-FHB-MAS02-06	76.3	56.0	0.5
15VTK-1-101-BS112	76.2	45.1-	1.5
18VTK15-27	75.5	55.1	0.0-
DH17SRW136-066	75.2	51.4	1.5
NC14757LDH-44	74.9	53.4	-0.0-
EPIX 1365	74.9	53.0	2.0
AgriMAXX 503	74.9	58.0	2.5
EPIX 3489	74.9	52.8	4.0+
AgriMAXX 535	74.7	53.3	2.0
VA22FHB-90	74.6	60.6+	-0.0-
16VDH-SRW03-023	74.5	50.7	-0.0-
MAS #106	74.4	52.5	2.0
NC11546-14	74.3	56.7	-0.0-
19VTK7-66	73.7	53.4	0.0-
26R33	73.6	51.7	4.0+
mean	77.6	52.6	1.6
LSD	15.3	6.5	1.3
CV	13.8	7.4	41.0

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Leaf Rust
DH19SRW07-309	73.5	50.8	0.5
AgriMAXX 513	73.4	49.9	2.5
VA19W-29	73.4	55.4	3.5+
Revere 2347	73.2	51.4	4.5+
Dyna-Gro 9570	73.0	55.3	3.0+
DH19SRW09-073	73.0	51.7	0.0-
AgriMAXX 525	72.2	49.8	3.0+
MAS #139	71.8	49.1	5.5+
Dyna-Gro 9551	71.6	57.8	4.5+
DH19SRW08-020	71.6	53.8	0.5
MAS #2	71.5	50.9	1.0
Dyna-Gro 9422	71.1	50.6	4.5+
MAS #228	70.8	51.9	2.5
Dyna-Gro 9231	70.5	49.4	3.5+
Dyna-Gro 9533	70.5		4.0+
MAS #189	70.3	49.7	5.0+
KWS542	70.3	50.8	0.5
InSpire FS 891	69.8	51.7	2.5
InSpire FS 743	69.8	53.0	4.0+
NC18-16900	69.8	47.3	-0.0-
Revere 2277	69.7	51.6	1.0
KWS527	69.5	50.0	2.5
18VTK12-111	69.3	52.6	-0.0-
Southern Harvest 4222	69.3	53.0	4.0+
AgriMAXX 545	69.1	49.7	3.0+
KWS529	68.8	50.2	2.5
18VTK18-112	68.6	48.1	1.0
AgriMAXX 516	68.2		4.5+
26R45	68.1		2.0
CP8024	68.0		1.5
18VTK5-95	68.0	48.1	-0.0-
InSpire FS 745	68.0	46.6	3.0+
MBX 230	67.7	50.4	4.5+
mean	77.6	52.6	1.6
LSD	15.3	6.5	1.3
CV	13.8	7.4	41.0

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Leaf Rust
MAS #316	67.7	44.8-	3.5+
KWS525	67.7		3.0+
MAS #133	67.3	54.9	5.5+
MAS #155	67.1	50.2	6.0+
MAS #190	66.7	54.8	4.0+
CP8045	66.7		6.0+
Revere 2169	66.1		5.5+
Southern Harvest 7222	66.0	58.0	-0.0-
EPIX 4372	65.7		4.5+
VA20HRW-50	64.5	50.6	1.0
Dyna-Gro 9120	63.8	43.9-	2.5
AgriMAXX 505	63.8	48.7	4.0+
MBX 127	63.8	48.7	4.0+
VA19MAS7-519-1WS-R110	62.6	45.8-	0.0-
MASSEY	62.3		8.0+
DH19SRW08-001	61.7-	48.1	-0.0-
USG 3472	60.8-		6.0+
Dyna-Gro 9151	59.0-	47.1	4.5+
USG 3574	59.0-	44.0-	5.0+
Dyna-Gro 9172	57.2-		7.0+
17VTK18-13	54.8-	44.2-	0.0-
mean	77.6	52.6	1.6
LSD	15.3	6.5	1.3
CV	13.8	7.4	41.0

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 9: Virginia state soft winter wheat official variety test in Shenandoah Valley, VA in 2024.

Line	Grain Yield bu/ac	Test Weight lb/bu
Dyna-Gro 9422	106.6+	59.0
AgriMAXX 535	104.1+	59.9
26R33	103.6+	59.7
Dyna-Gro 9290	102.7+	59.1
Dyna-Gro 9593	101.3+	58.0
MAS #86	100.7+	58.1
MAS #228	99.5+	58.9
MAS #155	98.9+	59.3
USG 3472	98.5	58.6
Dyna-Gro 9231	98.5	58.8
Revere 2347	97.6	59.8
InSpire FS 745	97.3	57.1
EPIX 3489	97.1	57.3
AgriMAXX 525	96.3	59.5
AgriMAXX 516	96.2	58.9
EPIX 3498	96.1	59.2
Dyna-Gro 9172	96.1	58.7
Dyna-Gro 9551	96.1	57.3
MAS #316	95.9	57.9
MAS #227	95.9	59.6
USG 3352	95.6	58.4
AgriMAXX 545	95.6	58.0
AgriMAXX 513	95.3	59.9
Revere 2169	95.2	58.1
MAS #225	95.1	58.4
AgriMAXX 505	94.9	61.1
Dyna-Gro 9570	94.4	57.0
KWS543	93.9	58.4
mean	82.1	58.0
LSD	16.5	3.2
CV	14.1	3.8

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

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Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight
CP8045	93.8	57.7
MBX 230	93.6	59.8
USG 3463	93.3	58.0
KWS542	93.2	58.3
InSpire FS 891	92.8	59.9
InSpire FS 855	92.8	58.8
InSpire FS 743	92.6	60.1
Dyna-Gro 9553	91.8	58.6
MAS #2	91.6	60.6
USG 3363	91.6	60.0
Dyna-Gro 9120	91.1	60.8
MAS #226	90.8	58.0
MAS #190	90.4	59.5
AgriMAXX EXP 2404	90.0	58.1
NC18-16900	89.6	60.3
18VTK15-27	89.4	57.2
MAS #139	89.3	58.1
VA20FHB-20	89.1	60.6
KWS525	89.0	59.0
Revere 2277	88.8	56.7
EPIX 4372	87.9	57.9
KWS527	87.9	59.8
MBX 127	87.9	58.0
Phoenix 96	87.3	58.6
Dyna-Gro 9393	87.1	58.6
Phoenix 29	87.0	56.5
NC15305-43	86.8	61.0
Southern Harvest 9520	86.7	59.1
NC14757LDH-44	86.5	58.2
26R59	86.5	58.1
VT Pitman	86.4	60.4
NC20-21971	86.2	59.0
mean	82.1	58.0
LSD	16.5	3.2
CV	14.1	3.8

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight
Dyna-Gro 9151	85.8	60.9
Liberty 5658	85.8	59.6
Southern Harvest 5123	85.2	60.3
Dyna-Gro 9533	84.8	57.4
Featherstone 3000	84.6	58.0
VA20W-142	84.4	57.7
Southern Harvest 4222	84.3	59.5
AGS 4043	84.2	59.7
EPIX 4480	84.2	58.7
UMD-VTWVT24-3	84.1	59.3
GP 543	84.0	57.1
USG 3661	83.9	55.1
UMD-VTWVT24-2	83.6	60.2
USG 3451	83.3	60.4
VA20FHB-18	83.2	59.7
UMD-VTWVT24-1	82.8	58.4
19VDH-FHB-MAS05-27	82.8	55.6
USG 3884	82.6	57.7
MAS #106	82.5	58.1
GP 381	82.3	56.3
EPIX 1375	81.8	55.1
Dyna-Gro Shirley	81.6	54.5-
VA18HRW-58	81.3	58.6
18VTK10-23	81.0	60.3
VA22W-201	80.8	59.5
USG 3354	80.8	56.5
18VTK18-112	80.7	59.6
DH19SRW08-020	80.3	58.7
18VTK12-111	79.3	58.3
VA20HRW-50	79.3	58.7
MAS #133	79.0	55.7
MAS #189	78.5	60.5
mean	82.1	58.0
LSD	16.5	3.2
CV	14.1	3.8

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight
18VTK10-110	78.1	60.5
17VDH-SRW01-077	77.7	59.8
MERL	77.4	59.5
DH17SRW136-066	77.1	57.2
DH20SRW02-073	76.8	57.0
26R45	75.7	57.1
MAS #178	75.7	56.6
GA141045-9-3-2-21LE7	75.3	59.9
NC11546-14	75.1	61.1
USG 3673	75.1	59.3
AgriMAXX 544	75.1	58.4
VA19W-29	75.0	56.9
EPIX 1365	74.9	56.8
GA15490ID-19-5-21LE2	74.7	56.7
USG 3574	74.6	58.3
InSpire FS 747	74.6	59.1
NC16VT30-7-47	74.2	60.3
VA20W-135	74.2	55.6
MASSEY	74.0	59.2
17VTK4-29	74.0	58.9
VA22W-196	73.4	53.3
VA19FHB-36	73.2	59.6
18VTK6-3	73.1	58.7
GA151313-LDH-192 -20E48	73.1	57.8
17VTK18-13	72.8	55.0
Southern Harvest 7200	72.6	58.4
15VTK-1-101	72.5	56.8
Southern Harvest 7222	72.3	59.0
KWS529	72.3	57.5
17VDH-SRW02-125	72.0	60.6
19VDH-FHB-MAS02-06	71.8	60.0
HILLIARD	71.6	58.2
mean	82.1	58.0
LSD	16.5	3.2
CV	14.1	3.8

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight
18VTK10-5	70.4	57.6
MAS #67	70.2	57.6
18VDH-FHB-MAS07-173-03	70.2	59.3
16VDH-SRW03-023	69.4	56.3
19VTK7-66	69.3	56.7
19VTK5-167	69.2	57.7
15VDH-FHB-MAS25-15	68.3	58.4
VA22FHB-90	66.2	56.8
CP8024	66.2	59.7
DH19SRW07-321	64.9-	55.8
DH19SRW08-001	64.9-	53.0-
DH19SRW07-309	64.8-	58.1
VA19HRW-17	64.8-	55.3
19VDH-FHB-MAS03-29	64.3-	58.3
18VTK5-95	63.7-	55.8
VA21W-39	62.2-	57.7
GA131246LDH-86-21E2	60.9-	51.8-
GANC12915-167-21E3	60.3-	55.4
VA21W-112	59.6-	51.7-
DH19SRW09-073	59.3-	55.8
VA22W-21	58.4-	53.3-
VA19MAS7-519-1WS-R110	58.2-	56.7
AGS 3026	49.9-	49.5-
19VDH-FHB-MAS01-29	49.9-	50.9-
15VTK-1-101-BS112		49.4-
AgriMAXX 503		56.2
mean	82.1	58.0
LSD	16.5	3.2
CV	14.1	3.8

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 10: Virginia state soft winter wheat official variety test in Warsaw, VA in 2024.

Line	Grain Yield bu/ac	Test Weight lb/bu	Heading Date Julian	Height in	Lodging 0-9
VA20FHB-18	116.1+	56.6	109-	42+	1.0
NC20-21971	115.4+	55.6	110-	41	1.7+
USG 3354	115.0+	56.1	109-	39	2.4+
USG 3673	114.8+	56.2	111-	39	1.0
Dyna-Gro 9533	114.4+	53.6	115+	38	1.2
InSpire FS 745	112.4+	57.1	116+	40	1.0
MAS #155	112.2+	55.7	115	40	1.1
18VTK10-23	111.7+	58.3+	109-	41+	1.0
DH19SRW07-321	111.7+	56.2	115	40	1.0
Liberty 5658	111.6+	57.5	110-	41+	1.2
19VDH-FHB-MAS05-27	111.2+	55.0	116+	41+	1.1
Southern Harvest 5123	111.1+	56.0	112-	38	1.0
Dyna-Gro 9551	111.1+	54.6	110-	36-	1.1
VA22W-196	110.6+	55.4	108-	37	1.0
18VTK18-112	110.1+	56.8	111-	42+	1.5
USG 3463	110.0+	55.0	114	38	1.0
GA15490ID-19-5-21LE2	109.7+	56.3	113	40	1.1
16VDH-SRW03-023	109.4+	55.2	110-	40	1.0
GP 381	109.3+	57.0	110-	37	1.1
USG 3451	109.2+	57.1	109-	39	1.4
Revere 2169	109.2+	55.4	116+	41	1.1
MBX 127	109.1+	55.0	116+	39	1.0
USG 3352	108.7	55.9	117+	41	1.4
EPIX 4372	108.6	56.0	115+	40	1.1
NC14757LDH-44	108.3	56.6	110-	40	1.6+
Dyna-Gro 9422	108.2	56.2	114	40	1.0
VA20FHB-20	108.2	57.7	110-	41	1.0
VA22W-201	107.9	57.3	111-	35-	1.2
DH19SRW08-020	107.5	57.1	108-	37	1.1
Revere 2347	107.4	56.0	116+	41+	1.0
mean	101.2	55.6	114	39	1.2
LSD	7.7	2.3	1	2	0.4
CV	5.4	2.9	1	4	23.7

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging
VA22W-21	107.3	55.3	117+	35-	1.0
Revere 2277	106.6	56.4	119+	39	1.1
Dyna-Gro 9120	106.4	56.1	114	38	1.0
18VTK15-27	106.4	54.7	108-	39	1.9+
DH19SRW07-309	106.0	57.0	115	41+	1.1
AgriMAXX 516	106.0	54.1	116+	39	1.1
MAS #139	105.9	54.3	115	37	1.0
VA20W-142	105.8	56.2	112-	40	1.1
USG 3363	105.1	56.4	116+	40	1.0
USG 3661	105.0	55.1	114	37	1.2
MAS #226	104.8	56.3	111-	34-	1.0
17VTK4-29	104.7	55.2	110-	36-	1.5
Dyna-Gro 9393	104.4	54.6	115+	38	1.0
19VDH-FHB-MAS03-29	104.2	55.7	111-	39	1.0
AgriMAXX 544	104.2	54.4	111-	40	1.4
Dyna-Gro 9231	104.1	55.8	115+	42+	1.1
MAS #86	104.0	55.5	115+	41	1.0
InSpire FS 743	103.9	56.5	116+	41	1.0
GA131246LDH-86-21E2	103.6	53.9	114	38	1.1
AgriMAXX 525	103.4	54.8	118+	37	1.0
EPIX 3498	103.3	56.6	116+	38	1.0
KWS529	103.3	53.9	113	37	1.0
KWS527	103.3	55.1	117+	39	1.0
MAS #228	103.1	55.9	116+	38	1.0
VT Pitman	103.0	55.7	110-	39	1.1
19VTK7-66	103.0	54.0	114	42+	1.4
15VDH-FHB-MAS25-15	103.0	56.0	110-	37	1.0
DH20SRW02-073	103.0	55.7	116+	37-	1.5
18VTK10-5	102.9	56.6	114	38	1.0
Southern Harvest 4222	102.9	55.6	115+	41+	1.0
CP8045	102.8	54.8	116+	39	1.0
UMD-VTWVT24-3	102.7	54.2	114	40	1.1
AgriMAXX 545	102.7	54.8	117+	36-	1.1
mean	101.2	55.6	114	39	1.2
LSD	7.7	2.3	1	2	0.4
CV	5.4	2.9	1	4	23.7

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging
MAS #225	102.5	55.2	116+	38	1.0
Dyna-Gro 9172	102.5	54.5	116+	38	1.0
NC15305-43	102.4	56.7	113	39	1.0
EPIX 3489	102.4	55.0	114	37-	1.2
DH17SRW136-066	102.3	54.5	111-	39	1.2
KWS543	102.2	56.1	115+	37	1.0
Phoenix 29	102.2	56.2	115	38	1.0
Dyna-Gro 9570	102.0	55.4	113	40	1.2
Phoenix 96	101.9	56.6	119+	42+	1.0
EPIX 4480	101.6	53.7	118+	38	1.0
NC18-16900	101.5	55.3	114	40	1.0
Southern Harvest 7222	101.4	56.7	115+	39	1.0
Southern Harvest 9520	101.3	54.8	118+	38	1.0
VA21W-39	101.2	55.3	110-	41	1.0
NC16VT30-7-47	101.1	55.1	110-	37	1.6+
19VTK5-167	100.7	54.8	112	34-	1.2
GP 543	100.5	54.2	108-	39	1.5
UMD-VTWVT24-2	100.5	55.5	115	40	1.2
AgriMAXX 535	100.5	55.6	115+	38	1.0
VA21W-112	100.4	55.3	111-	37	1.0
17VDH-SRW02-125	100.3	56.8	116+	38	1.1
USG 3574	100.1	56.3	109-	36-	1.2
VA19FHB-36	100.0	56.5	110-	42+	1.1
Dyna-Gro 9151	100.0	57.4	116+	38	1.1
MAS #190	99.9	54.8	119+	38	1.0
VA18HRW-58	99.7	57.1	120+	41+	1.0
15VTK-1-101	99.6	54.8	112-	36-	1.1
InSpire FS 747	99.6	55.3	111-	38	1.0
GANC12915-167-21E3	99.5	54.7	110-	39	1.0
MAS #178	99.5	55.2	115+	40	1.0
18VTK10-110	99.3	55.8	116+	38	1.0
AGS 4043	99.2	57.8	110-	36-	1.5
USG 3472	99.1	55.2	117+	38	1.0
mean	101.2	55.6	114	39	1.2
LSD	7.7	2.3	1	2	0.4
CV	5.4	2.9	1	4	23.7

continued ...

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.

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DON = Deoxynivalenol concentration in the kernels (ppm)

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Line	Grain Yield	Test Weight	Heading Date	Height	Lodging
Dyna-Gro 9553	98.8	54.4	117+	38	1.0
KWS542	98.4	55.4	114	41+	1.1
VA20W-135	98.4	56.6	113	42+	1.0
AGS 3026	98.2	56.5	117+	39	1.0
Dyna-Gro 9290	98.0	56.3	110-	38	1.1
Featherstone 3000	97.9	57.1	115	38	1.1
Southern Harvest 7200	97.7	56.7	108-	42+	1.2
18VTK6-3	97.3	56.7	116+	38	1.1
GA141045-9-3-2-21LE7	97.3	56.9	115	42+	1.0
EPIX 1375	97.2	56.5	108-	38	1.7+
GA151313-LDH-192 -20E48	97.0	56.7	117+	33-	1.0
MAS #106	96.9	54.5	108-	36-	1.5
MAS #2	96.9	56.6	117+	45+	2.7+
Dyna-Gro Shirley	96.8	54.2	115	37	1.1
17VTK18-13	96.6	55.0	115+	40	1.0
InSpire FS 855	96.5	54.8	115+	39	1.0
18VTK5-95	96.4	57.8	113	38	1.2
DH19SRW08-001	96.3	56.1	115+	36-	1.4
MERL	96.2	57.4	109-	38	1.1
26R33	95.9	54.2	115	39	1.0
19VDH-FHB-MAS01-29	95.9	54.9	114	33-	1.0
MAS #227	95.7	55.2	117+	37	1.0
26R45	95.6	53.5	115+	40	1.2
AgriMAXX EXP 2404	95.5	54.1	118+	38	1.0
MAS #67	95.3	53.4	109-	37	1.0
MAS #189	95.1	56.2	108-	41+	1.7+
HILLIARD	95.1	55.8	110-	41	1.0
AgriMAXX 503	94.7	55.4	116+	38	1.1
NC11546-14	94.3	56.9	110-	40	1.6+
18VDH-FHB-MAS07-173-03	94.0	52.8-	114	41	1.6+
CP8024	93.5-	56.7	117+	39	1.0
19VDH-FHB-MAS02-06	93.4-	55.3	117+	37	1.0
17VDH-SRW01-077	93.3-	55.2	109-	38	1.0
mean	101.2	55.6	114	39	1.2
LSD	7.7	2.3	1	2	0.4
CV	5.4	2.9	1	4	23.7

continued ...

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.

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DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging
DH19SRW09-073	93.2-	54.2	113	43+	1.9+
AgriMAXX 505	93.1-	56.6	116+	38	1.0
AgriMAXX 513	93.0-	57.0	116+	39	1.0
VA19W-29	92.9-	54.5	111-	41	1.0
USG 3884	92.9-	55.2	112	37-	1.0
26R59	92.6-	53.2-	113	35-	1.0
UMD-VTWVT24-1	92.5-	55.8	110-	37	1.0
InSpire FS 891	92.4-	54.3	115	39	1.0
MBX 230	92.3-	55.8	115+	40	1.0
MAS #316	91.8-	55.1	117+	40	1.0
Dyna-Gro 9593	91.6-	54.2	111-	36-	1.1
KWS525	91.5-	55.3	117+	37	1.0
VA22FHB-90	90.1-	55.0	119+	42+	1.4
18VTK12-111	90.0-	56.9	119+	36-	1.0
VA19MAS7-519-1WS-R110	89.4-	56.0	117+	38	1.0
EPIX 1365	89.3-	54.0	112	38	1.2
VA19HRW-17	88.6-	56.3	121+	40	1.0
MAS #133	88.3-	53.0-	116+	40	1.0
VA20HRW-50	87.5-	56.2	117+	43+	1.1
MASSEY	81.8-	54.9	109-	42+	1.5
15VTK-1-101-BS112		51.0-	119+	36-	1.0
mean	101.2	55.6	114	39	1.2
LSD	7.7	2.3	1	2	0.4
CV	5.4	2.9	1	4	23.7

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.

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Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Winter Barley in 2024

Growing conditions in 2024 were generally favorable for winter barley across Virginia, with yields averaging 117 bu/ac. Despite warm, dry conditions in some regions during late flowering and grain fill, test weight was mostly unaffected (46.7 lbs/bu average across locations). Dry conditions during and after grain maturation led to easy harvest conditions and low prevalence of quality loss due to pre-harvest sprouting. A few winter barley varieties in the Mid-Atlantic saw some of the highest stand losses in recent years due to high Barley Yellow Dwarf Virus (BYDV) infection rates in susceptible cultivars. BYDV is transmitted by aphids, which are only partially controlled by seed treatments and only for a finite amount of time. While several samples sent for BYDV analysis tested negative for the virus, the environmental conditions were correct for high BYDV pressure, with a mild fall and winter, as well as plant phenotypes that were highly consistent with BYDV infection. Some samples that tested negative for BYDV were found to test positive for *Rhizoctonia* or *Pythium*, suggesting multiple disease pressures were experienced in various locations. Varieties found susceptible were typically malt types of European origin or ancestry, including new to the market varieties such as Violetta, Flavia and Calypso. Traditional eastern US feed barley varieties, such as Secretariat and Thoroughbred, showed little to no susceptibility.

Table 11: Virginia state winter barley official variety test at 5 sites across Virginia in 2024. Sites included Blacksburg, Blackstone, Orange, Holland, and Warsaw VA.

Line	Grain Yield bu/ac (4)	Test Weight lb/bu (4)	Heading Date Julian (2)	Height in (2)	Lodging 0-9 (2)	Powdery Mildew 0-9 (1)	Leaf Rust 0-9 (1)	FHBPlant Response 0-9 (1)	BYDV 0-9 (2)
18/253/54	137.9+	46.4	110+	35	1.5	0.0	3.0	6.0	0
18/252/55	134.1+	45.1	110+	34	1.1	0.0	1.3	6.5+	0
VA22B-354	131.0+	46.8	106	39+	1.6	6.0	3.0	5.0	0
18/252/16	129.9+	45.4	112+	37	1.6	0.0	1.0	4.0	0
VA22B-361	129.7+	47.4	107	39+	2.0	0.0	2.5	4.0	0
VA22B-342	129.2+	46.6	107	37	2.1	0.0	1.5	5.5	0
VA22B-360	129.0+	48.0	108	38+	1.0	8.0	4.0	4.0	0
18/252/57	129.0+	46.5	111+	35	0.1-	0.0	1.0	6.5+	0
VA20BFHB-18DH495 LX	128.5+	49.0+	103-	41+	3.1	0.0	1.0	5.0	0
VA22B-349	127.8+	47.4	107	38+	2.1	8.0	2.5	6.0	0
16/476/18	127.3+	45.9	111+	33-	0.0-	0.0	1.3	6.5+	0
VA22B-337	126.9	47.7	107	38+	2.2	0.0	1.0	4.5	0
VA22B-351	126.8	47.6	107	39+	2.7	7.0	1.0	3.5	0
VA22B-336	126.2	47.0	107	38	1.6	0.0	3.5	4.0	0
VA21B-7 LA	125.3	47.5	106-	37	2.0	0.0	1.5	4.0	0
VA22B-348	125.3	46.4	107	39+	2.5	0.0	3.3	5.0	0
SECRETARIAT	123.7	47.8	104-	35	3.1	0.0	1.0	4.0	0
mean	117.1	46.7	107	36	1.9	0.9	1.8	4.2	0
LSD	10.0	1.8	1	2	1.4		2.3	2.0	1
CV	12.0	5.5	1	5	75.3		88.6	23.7	114

continued ...

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FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Powdery Mildew	Leaf Rust	FHBPlant Response	BYDV
VA17B-166 LA	123.5	49.1+	104-	37	0.7	5.0	2.8	4.0	0
VA18B-34	123.2	48.3	105-	36	1.3	0.0	1.5	4.5	0
VA21B-6 LA	122.0	49.0+	104-	39+	2.2	0.0	2.0	4.0	0
VA22M-158	121.7	46.8	109+	34	0.1-	0.0	1.0	2.5	0
VA19B-20 LA	121.4	46.5	108+	36	0.7	0.0	1.0	4.0	0
VA20B-40 LA	121.2	45.9	107	37	0.5	0.0	3.2	5.0	0
VA20BFHB-18DH442 SA	120.8	47.4	105-	35	3.2	0.0	1.0	4.5	0
VA18B-39	120.0	47.9	105-	36	1.5	0.0	1.0	4.0	0
VA18B-43 LA	118.9	47.5	105-	36	0.4-	0.0	1.5	4.5	0
VA21BFHB-19DH0143	118.7	46.3	109+	30-	0.7	0.0	2.8	3.0	0
VA18B-52 LA (Dec.)	118.5	48.4	104-	37	2.4	0.0	1.0	5.0	0
THOROUGHbred	117.6	46.0	107	34	2.7	0.0	4.2+	5.0	0
VA20B-35 LA	117.0	46.5	108+	37	0.2-	7.0	2.2	4.0	1+
VA20B-37 LA	116.7	48.3	106-	37	1.4	0.0	1.0	3.5	0
MARQUETTA	114.6	44.7-	108	35	3.2	0.0	1.0	5.5	0
VA21BFHB-19DH0184	114.1	46.6	110+	29-	0.9	0.0	1.0	3.0	1
VA21BFHB-19DH0303	112.0	46.9	112+	32-	2.0	0.0	1.5	3.0	0
HIRONDELLA	110.8	43.4-	109+	32-	3.5+	0.0	1.0	6.0	0
SB255	110.5	47.6	105-	37	2.7	0.0	1.5	4.0	2+
VA22M-70	110.2	46.3	108+	32-	1.7	0.0	1.0	2.0-	0
NOMINI	107.3	45.3	102-	40+	2.7	0.0	3.0	3.0	0
BARSOY	106.4-	46.2	103-	36	3.1	0.0	1.5	4.0	0
mean	117.1	46.7	107	36	1.9	0.9	1.8	4.2	0
LSD	10.0	1.8	1	2	1.4		2.3	2.0	1
CV	12.0	5.5	1	5	75.3		88.6	23.7	114

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Powdery Mildew	Leaf Rust	FHBPlant Response	BYDV
VT_BEAHM	104.3-	45.8	102-	42+	2.5	0.0	2.0	3.5	0
WYSOR	104.1-	41.7-	104-	40+	2.9	0.0	3.2	4.5	0
VA92-42-46	98.0-	42.5-	103-	41+	3.2	0.0	1.0	4.0	0
GREG	95.4-	56.4+	110+	40+	2.9	0.0	3.8	1.5-	0
AVALON	90.8-	46.8	108	36	2.0	0.0	2.3	2.0-	2+
CALYPSO	87.6-	42.5-	111+	32-	3.4+	0.0	1.0	2.5	2+
FLAVIA	86.3-	44.0-	110+	29-	1.4	0.0	1.0	4.5	6+
VIOLETTA	81.2-	44.9-	107	29-	2.4	0.0	1.0	3.5	3+
mean	117.1	46.7	107	36	1.9	0.9	1.8	4.2	0
LSD	10.0	1.8	1	2	1.4		2.3	2.0	1
CV	12.0	5.5	1	5	75.3		88.6	23.7	114

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 12: Virginia state winter barley official variety test across 12 site-years in 2022 and 2023.

Line	Grain Yield bu/ac (11)	Test Weight lb/bu (11)	Heading Date Julian (4)	Height in (4)	Lodging 0-9 (8)	Leaf Rust 0-9 (3)	FHB 0-9 (2)	Powdery Mildew 0-9 (1)	Spot Blotch 0-9 (1)	Scald 0-9 (1)	BYDV 0-9 (3)	FDK % (1)	DON ppm (1)
VA20B-35 LA	140.0+	50.0	111+	38	0.6	3.4+	3.0	7.0	5.5	0.0	1.1+	35	19
VA20BFHB-18DH495 LX	137.1+	51.2+	105-	41+	2.4+	2.4	3.5	0.0	5.5	0.0	-0.0	50	10
MARQUETTA	135.5+	47.9-	110+	37	1.2	0.4-	4.8+	0.0	6.0	0.5	-0.0	15	22
VA21B-7 LA	134.3+	50.3	109	38+	1.2	1.6	3.5	0.0	4.0	0.0	-0.0	23	17
VA21BFHB-19DH0143	132.8+	49.7	112+	31-	0.1-	1.9	2.0	0.0	6.5	0.5	0.1	55	9
VA20B-40 LA	131.9+	49.6	111+	38+	0.6	4.1+	3.8	0.0	4.0	0.0	0.2	40	18
VA19B-20 LA	131.3	50.0	111+	37	0.4-	1.4	4.0	0.0	4.5	0.0	-0.0	25	29
THOROUGHbred	130.9	49.7	110+	37	1.1	4.5+	4.0	0.0	4.0	-0.0	-0.0	58	29
VA18B-34	130.8	51.0	108-	37	0.9	1.7	4.0	0.0	3.5	0.0	-0.0	13	23
VA20B-37 LA	130.4	50.3	108	39+	1.1	1.1	2.5	0.0	7.0	-0.0	-0.0	25	14
VA17B-166 LA	130.0	51.9+	107-	37	1.0	2.9	3.5	5.0	4.0	0.0	-0.0	12	32
VA20BFHB-18DH442 SA	129.2	49.8	107-	35-	2.1+	2.3	4.3	0.0	5.0	-0.0	-0.0	15	12
VA18B-52 LA	129.1	51.4+	107-	36	1.4	1.1	4.3	0.0	4.0	-0.3	-0.0	23	19
VA21B-6 LA	128.6	51.8+	107-	40+	1.4	1.6	3.3	0.0	5.5	2.0+	0.1	7	15
VA18B-39	127.7	50.6	108-	36	1.2	1.0	3.0	0.0	5.0	-0.0	-0.0	15	14
VA18B-43 LA	125.3	50.6	109	36	0.0-	1.6	3.5	0.0	4.0	0.0	0.1	33	24
HIRONDELLA	125.1	47.0-	113+	34-	1.3	0.5-	4.0	0.0	5.0	0.0	-0.0	12	24
mean	123.5	49.9	109	37	1.2	2.1	3.3	0.4	4.9	0.3	0.4	31	17
LSD	8.3	1.1	1	1	0.8	1.2	1.3		2.2	1.5	0.7	34	
CV	15.6	5.3	1	5	116.7	67.5	28.0		22.2	243.9	166.0	53	

continued ...

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.

BYDV = Barley Yellow Dwarf

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Leaf Rust	FHB	Powdery Mildew	Spot Blotch	Scald	BYDV	FDK	DON
VA21BFHB-19DH0184	124.9	49.3	113+	31-	0.1-	1.3	1.8-	0.0	6.5	0.0	0.8	28	6
SECRETARIAT	124.7	48.9	107-	35-	2.1+	0.4-	4.0	0.0	4.0	0.5	-0.0	28	18
SB255	123.7	51.0+	108-	39+	1.4	2.3	3.3	0.0	7.0	1.5	1.8+	20	14
VA21BFHB-19DH0303	122.7	49.2	115+	34-	1.3	0.9	2.0	0.0	5.5	0.0	0.1	20	9
FLAVIA	115.4	48.5-	113+	30-	0.5	1.7	4.0	0.0	4.0	1.0	5.7+	23	16
BARSOY	112.3-	49.1	105-	37	2.4+	3.5+	3.8	0.0	4.0	0.0	-0.0	22	16
AVALON	112.0-	50.8	111+	37	1.4	2.1	1.5-	0.0	4.5	0.0	1.7+	50	11
GREG	101.4-	58.4+	113+	40+	1.5	3.7+	1.0-	0.0	8.0+	1.5	-0.0	75+	4
VT_BEAHM	100.8-	46.5-	105-	43+	1.2	2.5	3.5	0.0	2.5-	0.0	-0.0	45	8
NOMINI	99.9-	46.4-	104-	40+	1.8	3.8+	3.3	0.0	3.5	0.5	-0.0	58	21
VA92-42-46	91.4-	46.4-	107-	40+	2.6+	1.9	3.5	0.0	3.5	0.5	-0.0	50	15
mean	123.5	49.9	109	37	1.2	2.1	3.3	0.4	4.9	0.3	0.4	31	17
LSD	8.3	1.1	1	1	0.8	1.2	1.3		2.2	1.5	0.7	34	
CV	15.6	5.3	1	5	116.7	67.5	28.0		22.2	243.9	166.0	53	

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.

BYDV = Barley Yellow Dwarf

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 13: Virginia state winter barley official variety test across 18 site-years from 2021 to 2023.

Line	Grain Yield bu/ac (17)	Test Weight lb/bu (16)	Heading Date Julian (7)	Height in (6)	Lodging 0-9 (10)	FHB 0-9 (3)	FDK % (2)	DON ppm (2)	Leaf Rust 0-9 (3)	Powdery Mildew 0-9 (1)	Spot Blotch 0-9 (1)	Scald 0-9 (1)	BYDV 0-9 (3)
VA20B-35 LA	129.2+	49.8	113+	36	0.5-	4.7	40	22	3.4+	7.0	5.5	-0.0	1.1
MARQUETTA	127.2+	47.7-	113+	37	1.2	5.2	30	25	0.4-	0.0	6.0	0.5	-0.0
VA20B-40 LA	123.5+	49.5	113+	37	0.5-	4.7	40	23	4.1+	0.0	4.0	0.0	0.2
THOROUGHbred	121.9+	50.0	112+	36	1.1	5.0	49	24	4.5+	0.0	4.0	0.0	-0.0
VA18B-34	121.4+	50.5	110-	36	0.8	4.8	26	18	1.7	0.0	3.5	0.0	-0.0
VA19B-20 LA	121.0+	49.6	113+	36	0.7	5.7	45	31	1.4	0.0	4.5	0.0	-0.0
VA20BFHB-18DH442 SA	120.6+	49.2	110-	34-	2.0+	5.8+	30	15	2.3	0.0	5.0	-0.0	-0.0
VA20B-37 LA	120.6+	50.3	111	37+	1.2	4.2	48	20	1.1	0.0	7.0	0.0	-0.0
VA17B-166 LA	119.6+	51.5+	110-	36	1.0	3.8	24	29	2.9	5.0	4.0	0.0	-0.0
HIRONDELLA	118.9	46.7-	115+	33-	1.3	5.0	24	41+	0.5-	0.0	5.0	0.0	-0.0
VA18B-52 LA	118.0	50.4	109-	35	1.2	5.3	46	18	1.1	0.0	4.0	-0.2	-0.0
VA18B-39	117.6	50.1	110-	35-	1.1	4.5	22	16	1.0	0.0	5.0	0.0	-0.0
SECRETARIAT	117.4	48.9	109-	34-	2.0+	4.7	34	18	0.4-	0.0	4.0	0.5	-0.0
VA18B-43 LA	116.7	50.0	111	35	0.1-	4.8	36	20	1.6	0.0	4.0	0.0	0.1
SB255	114.8	50.7+	110-	38+	1.4	4.5	18	15	2.3	0.0	7.0	1.5+	1.8+
FLAVIA	106.3-	48.1-	116+	29-	0.4-	4.3	21	17	1.7	0.0	4.0	1.0	5.7+
BARSOY	105.1-	48.8	107-	36	2.5+	4.3	29	20	3.5+	0.0	4.0	-0.0	-0.0
mean	113.0	49.5	111	36	1.2	4.4	36	20	2.2	0.5	4.7	0.3	0.4
LSD	6.2	1.0	1	1	0.6	1.4	25	14	1.2		2.3	1.2	0.7
CV	15.6	5.9	1	5	109.4	28.8	49	34	63.6		24.2	219.7	153.8

continued ...

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.

BYDV = Barley Yellow Dwarf

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	FHB	FDK	DON	Leaf Rust	Powdery Mildew	Spot Blotch	Scald	BYDV
AVALON	103.4-	50.6+	113+	37	1.2	2.8-	38	16	2.1	0.0	4.5	0.0	1.7+
GREG	93.9-	56.9+	115+	39+	1.2	1.7-	47	7	3.7+	0.0	8.0+	1.5+	-0.0
VT.BEAHM	93.3-	47.2-	107-	42+	1.2	3.4	40	13	2.5	0.0	2.5	0.0	-0.0
NOMINI	91.9-	46.4-	107-	39+	1.8	3.5	61+	19	3.8+	0.0	3.5	0.5	-0.0
VA92-42-46	84.4-	46.3-	109-	39+	2.2+	3.8	45	14	1.9	0.0	3.5	0.5	-0.0
mean	113.0	49.5	111	36	1.2	4.4	36	20	2.2	0.5	4.7	0.3	0.4
LSD	6.2	1.0	1	1	0.6	1.4	25	14	1.2		2.3	1.2	0.7
CV	15.6	5.9	1	5	109.4	28.8	49	34	63.6		24.2	219.7	153.8

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.

BYDV = Barley Yellow Dwarf

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 14: Virginia state winter barley official variety test in Blacksburg, VA in 2024.

Line	Grain Yield bu/ac	Test Weight lb/bu	Heading Date Julian	Height in	Lodging 0-9	Powdery Mildew 0-9	Leaf Rust 0-9
18/253/54	173.6+	47.3-	112+	34	3.0	0.0	3.0
18/252/55	172.6+	45.5-	112+	35	2.2	0.0	1.3
16/476/18	170.4+	47.9	114+	33-	0.0-	0.0	1.3
18/252/57	165.3+	47.5	114+	35	0.3-	0.0	1.0
VA22B-342	163.9+	48.0	110	36	4.2	0.0	1.5
VA22B-336	161.7+	48.0	109	38	3.2	0.0	3.5
VA17B-166 LA	159.4+	50.3+	106-	38+	1.5-	5.0	2.8
VA22B-349	158.8	48.0	109	37	4.2	8.0	2.5
18/252/16	157.8	47.9	115+	37	3.2	0.0	1.0
HIRONDELLA	157.0	42.9-	111+	33-	7.0+	0.0	1.0
SECRETARIAT	156.8	48.4	106-	35	6.2+	0.0	1.0
VA20B-35 LA	156.1	48.3	110	38	0.5-	7.0	2.2
VA20BFHB-18DH495 LX	156.0	50.1+	105-	41+	6.2+	0.0	1.0
VA22B-360	155.7	48.7	111+	37	2.0	8.0	4.0
VA20BFHB-18DH442 SA	155.3	48.9	106-	34	6.5+	0.0	1.0
VA20B-40 LA	155.0	48.3	110	36	1.0-	0.0	3.2
VA22B-361	154.5	48.5	109	38+	4.0	0.0	2.5
VA21B-7 LA	153.7	48.6	108-	36	4.0	0.0	1.5
VA22B-348	153.3	47.3-	109	37	5.0	0.0	3.3
VA18B-52 LA (Dec.)	151.4	49.5+	106-	37	4.7	0.0	1.0
VA22B-354	151.0	47.0-	108-	38+	3.2	6.0	3.0
VA22B-351	151.0	48.4	109	37	5.5	7.0	1.0
VA18B-39	150.2	49.7+	107-	37	3.0	0.0	1.0
VA19B-20 LA	149.9	47.8	110	37	1.5-	0.0	1.0
VA18B-34	149.8	49.6+	108-	38	2.5	0.0	1.5
VA22B-337	149.7	48.8	110	37	4.5	0.0	1.0
VA21B-6 LA	149.7	50.3+	107-	39+	4.5	0.0	2.0
MARQUETTA	148.9	45.4-	110	33-	6.5+	0.0	1.0
VA21BFHB-19DH0143	147.3	48.6	111+	30-	1.5-	0.0	2.8
THOROUGHbred	146.2	47.0-	109	33-	5.5	0.0	4.2+
VA22M-158	145.6	48.6	112+	34	0.2-	0.0	1.0
mean	148.0	48.2	109	36	3.8	0.9	1.8
LSD	11.1	0.8	1	2	2.0		2.3
CV	5.4	1.2	1	4	38.3		88.6

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	Powdery Mildew	Leaf Rust
VA21BFHB-19DH0184	143.6	48.9	111+	29-	1.7-	0.0	1.0
VA20B-37 LA	142.7	49.8+	108-	36	2.7	0.0	1.0
VA22M-70	142.1	48.7	110	33-	3.5	0.0	1.0
FLAVIA	141.5	47.4	111+	31-	2.8	0.0	1.0
VA18B-43 LA	140.6	49.1+	107-	36	0.7-	0.0	1.5
SB255	139.2	49.0+	107-	38	5.5	0.0	1.5
VA21BFHB-19DH0303	137.7	47.8	115+	33-	4.0	0.0	1.5
BARSOY	136.5-	47.5	105-	35	6.3+	0.0	1.5
CALYPSO	134.1-	46.0-	113+	34	6.7+	0.0	1.0
WYSOR	132.2-	45.0-	106-	40+	5.7	0.0	3.2
VIOLETTA	129.3-	48.1	108-	31-	4.7	0.0	1.0
AVALON	128.9-	50.1+	109	37	4.0	0.0	2.3
NOMINI	127.1-	45.2-	104-	39+	5.5	0.0	3.0
VT_BEAHM	123.8-	46.3-	105-	41+	5.0	0.0	2.0
VA92-42-46	121.5-	45.6-	106-	39+	6.5+	0.0	1.0
GREG	108.0-	58.6+	112+	39+	5.7	0.0	3.8
mean	148.0	48.2	109	36	3.8	0.9	1.8
LSD	11.1	0.8	1	2	2.0		2.3
CV	5.4	1.2	1	4	38.3		88.6

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 15: Virginia state winter barley official variety test in Blackstone, VA in 2024.

Line	Grain Yield bu/ac	Test Weight lb/bu	BYDV 0-9
SECRETARIAT	147.3+	50.2	-0
18/252/57	141.9	49.2	0
18/252/55	137.2	46.8-	0
18/253/54	137.2	48.2	1
VA18B-39	136.7	49.0	0
VA22B-342	134.0	48.3	-0
VA22B-354	133.5	48.0	-0
VA17B-166 LA	133.1	50.9+	-0
VA20BFHB-18DH495 LX	132.9	51.3+	0
VA21B-7 LA	131.5	48.7	-0
VA22B-360	131.3	50.9+	0
VA18B-43 LA	131.2	49.2	0
VA22M-158	130.3	48.2	0
VA19B-20 LA	129.6	48.4	-0
16/476/18	129.5	47.7	-0
18/252/16	129.3	47.0	-0
VA22B-351	128.2	49.3	-0
VA22B-349	127.3	49.3	0
VA22B-361	127.1	48.7	-0
VA21B-6 LA	125.3	51.1+	0
VA22B-336	124.4	49.4	0
BARSOY	123.2	49.1	0
VA22B-348	121.8	48.1	0
VA20BFHB-18DH442 SA	121.1	49.8	-0
VA21BFHB-19DH0143	120.1	48.2	0
VA21BFHB-19DH0184	119.0	49.2	2
VA20B-37 LA	118.5	50.6+	0
VA20B-40 LA	118.5	46.2-	1
VA18B-34	118.0	50.2	0
VA22B-337	117.8	49.3	0
mean	118.8	48.7	0
LSD	24.9	1.7	1
CV	15.0	2.6	106

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	BYDV
SB255	115.5	50.0	2
VA20B-35 LA	115.1	48.9	3+
VT BEAHM	113.9	48.2	-0
MAROUETTA	113.5	44.8-	-0
NOMINI	113.3	47.8	-0
VA21BFHB-19DH0303	111.6	50.5+	0
THOROUGHbred	110.2	47.3	0
VA18B-52 LA (Dec.)	109.9	49.8	-0
VA22M-70	108.0	48.0	0
HIRONDELLA	105.1	45.0-	-0
WYSOR	101.1	47.2	0
GREG	100.5	59.6+	-0
VA92-42-46	95.5	49.0	0
FLAVIA	85.4-	46.0-	6+
AVALON	84.8-	48.4	2+
CALYPSO	71.7-	43.1-	3+
VIOLETTA	71.4-	45.6-	3+
mean	118.8	48.7	0
LSD	24.9	1.7	1
CV	15.0	2.6	106

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 16: Virginia state winter barley official variety test in Holland, VA in 2024.

Line	Grain Yield bu/ac	Test Weight lb/bu
VA22B-337	112.9+	52.2
VA22B-348	107.5+	50.1
18/253/54	106.3+	49.9
VA22B-361	102.9	52.1
VA21B-6 LA	102.8	53.2+
VA22B-349	102.3	51.8
VA22B-354	100.4	51.3
VA22B-351	98.8	51.2
VA21BFHB-19DH0143	97.5	49.2
VA20B-35 LA	97.3	50.7
18/252/16	97.1	47.1
VA20BFHB-18DH495 LX	97.0	52.8
VA22M-158	97.0	48.8
VA21BFHB-19DH0303	96.2	49.5
VA18B-34	95.1	51.6
VA22B-360	94.8	50.7
VA21B-7 LA	94.2	51.9
VA22B-342	92.9	49.8
VA20B-40 LA	92.7	49.2
16/476/18	91.9	48.4
SB255	91.8	52.1
VA21BFHB-19DH0184	89.3	49.1
VA18B-52 LA (Dec.)	89.2	52.4
THOROUGHbred	88.9	50.4
VA22B-336	88.4	50.5
18/252/57	86.4	50.0
18/252/55	85.8	49.7
VA18B-43 LA	83.8	50.5
VA17B-166 LA	83.5	52.2
mean	85.8	48.8
LSD	18.4	4.1
CV	14.7	5.9

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm) 64

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight
VA20B-37 LA	83.5	51.5
GREG	83.4	58.4+
VA22M-70	82.9	48.4
VA19B-20 LA	82.5	49.9
BARSOY	70.3	50.4
SECRETARIAT	70.2	51.3
MARQUETTA	65.8-	48.5
AVALON	59.7-	49.9
VA18B-39	57.2-	51.1
VA20BFHB-18DH442 SA	57.2-	49.8
FLAVIA	55.6-	46.1
HIRONDELLA	53.7-	47.2
CALYPSO	53.2-	46.3
VIOLETTA	48.9-	48.3
NOMINI		
VA92-42-46		26.0-
VT_BEAHM		
WYSOR		5.2-
mean	85.8	48.8
LSD	18.4	4.1
CV	14.7	5.9

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 17: Virginia state winter barley official variety test in Painter, VA in 2024.

Line	Grain Yield bu/ac	Test Weight lb/bu	Leaf Rust 0-9	BYDV 0-9
VA22B-351	124.3	43.8	-0.0	0
18/252/16	119.0	45.1	-0.0	0
18/252/55	118.1	49.2	-0.0	0
VA20B-35 LA	117.7	51.4	0.0	0
VA22B-336	117.3	52.2	-0.0	0
MARQUETTA	115.1	49.0	-0.0	0
VA22B-360	112.6	52.1	0.0	0
18/252/57	111.9	43.1	-0.0	0
HIRONDELLA	107.3	48.9	-0.0	0
VA20B-40 LA	106.0	50.6	0.0	0
VA22B-342	104.9	51.2	-0.0	0
VA22B-361	101.3	52.4	-0.0	0
VA18B-52 LA (Dec.)	101.0	52.3	-0.0	0
CALYPSO	100.2	49.5	-0.0	0
VA22B-337	97.9	52.2	-0.0	0
VA18B-43 LA	96.7	51.7	0.0	0
VA21BFHB-19DH0184	96.6	51.2	-0.0	0
VA18B-39	95.3	52.6	0.0	0
VA21B-7 LA	95.1	52.2	-0.0	0
VA22B-354	94.2	52.8	-0.0	0
GREG	93.6	57.2	-0.0	0
VA22B-349	93.3	50.3	0.0	0
VA19B-20 LA	92.6	51.7	-0.0	0
AVALON	92.5	52.2	-0.0	0
THOROUGHbred	91.5	51.6	-0.0	0
VA21B-6 LA	90.6	52.4	0.0	0
VIOLETTA	90.4	49.8	-0.0	0
VA22M-158	89.7	49.6	-0.0	0
18/253/54	89.1	50.1	-0.0	0
VA20B-37 LA	88.3	52.3	0.0	0
mean	93.4	49.8	0.1	0
LSD	37.3	8.0	0.2	
CV	27.1	11.4	107.7	

continued ...

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Line	Grain Yield	Test Weight	Leaf Rust	BYDV
SB255	88.1	52.1	-0.0	0
VA18B-34	88.1	52.5	-0.0	0
VA20BFHB-18DH495 LX	88.0	51.5	-0.0	0
VA22B-348	85.7	45.5	-0.0	0
VA92-42-46	85.6	49.1	0.0	0
16/476/18	84.2	49.5	-0.0	0
FLAVIA	83.7	50.0	-0.0	2
VA17B-166 LA	83.4	53.3	-0.0	0
WYSOR	83.4	42.1	2.0+	0
VA20BFHB-18DH442 SA	83.0	48.2	-0.0	0
VA21BFHB-19DH0143	72.7	50.8	-0.0	0
VA21BFHB-19DH0303	72.2	49.2	0.0	0
SECRETARIAT	66.2	42.3	-0.0	0
VA22M-70	59.4	49.9	-0.0	0
BARSOY	37.3-	46.0	2.5+	0
NOMINI		46.3	-0.0	0
VT_BEAHM		40.8-	-0.0	0
mean	93.4	49.8	0.1	0
LSD	37.3	8.0	0.2	
CV	27.1	11.4	107.7	

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.

FHB = Fusarium Head Blight Score (0-9)

FDK = Fusarium Diseased Kernels (percent)

DON = Deoxynivalenol concentration in the kernels (ppm)

Awns, A = Awned, TA = Tip-Awned, and AL = Awnless

Table 18: Virginia state winter barley official variety test in Warsaw, VA in 2024.

Line	Grain Yield bu/ac	Test Weight lb/bu	Heading Date Julian	Height in	Lodging 0-9	BYDV 0-9
18/252/55	140.7+	38.5-	108+	34-	0.0	0
VA22B-354	139.1+	41.0	105	39+	0.0	0
18/252/16	135.5+	39.5	108+	37	0.0	-0
18/253/54	134.5+	40.2	107+	35	-0.0	-0
VA22B-360	134.2+	41.7+	105	39+	0.0	0
VA22B-361	134.1+	40.4	105	39+	0.0	-0
VA18B-34	132.4+	42.0+	103-	35	0.0	0
VA22B-336	130.4+	40.0	105	37	-0.0	0
MARQUETTA	130.0+	39.8	105	36	-0.0	-0
VA22B-351	129.1+	41.6+	105	40+	0.0	-0
VA20BFHB-18DH495 LX	128.3+	41.9+	101-	41+	0.0	-0
VA18B-39	127.9+	41.8+	103-	34	-0.0	0
VA22B-337	127.3+	40.4	105	39+	-0.0	0
VA22B-342	125.9+	40.5	105	38+	0.0	0
VA20BFHB-18DH442 SA	125.4+	41.0	103-	35	0.0	-0
THOROUGHbred	125.1	39.2	105	35	-0.0	0
VA19B-20 LA	123.5	39.8	106+	35	0.0	0
VA18B-52 LA (Dec.)	123.3	42.0+	102-	36	0.0	-0
VA22B-349	122.6	40.5	105	40+	-0.0	-0
18/252/57	122.1	39.4	108+	35	-0.0	-0
VA21B-7 LA	122.0	40.8	103-	37	-0.0	0
VA20B-37 LA	121.9	41.3+	103-	36	-0.0	0
HIRONDELLA	120.7	38.3-	107+	31-	-0.0	0
VA18B-43 LA	120.1	41.2	104-	35	-0.0	-0
SECRETARIAT	119.6	41.6+	102-	34	-0.0	0
VA22B-348	118.7	40.2	105	40+	0.0	-0
VA20B-40 LA	118.5	40.0	105	37	-0.0	-0
VA17B-166 LA	118.1	42.9+	101-	36	0.0	0
16/476/18	117.3	39.6	108+	32-	-0.0	0
VA22M-158	113.9	41.5+	106+	34	0.0	0
NOMINI	113.2	39.8	101-	40+	-0.0	0
mean	116.0	40.2	105	36	-0.0	0
LSD	9.3	1.1	1	2	0.0	1
CV	5.7	1.9	0	4	NaN	155

continued ...

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.
FHB = Fusarium Head Blight Score (0-9)
FDK = Fusarium Diseased Kernels (percent)
DON = Deoxynivalenol concentration in the kernels (ppm)
Awns, A = Awne, TA = Tip-Awne, and AL = Awnless

Line	Grain Yield	Test Weight	Heading Date	Height	Lodging	BYDV
WYSOR	110.5	39.7	102-	40+	0.0	-0
VA21B-6 LA	110.1	41.2	102-	38+	0.0	0
VA21BFHB-19DH0143	110.0	39.4	107+	29-	-0.0	0
VA92-42-46	108.6	39.3	101-	42+	-0.0	0
VA22M-70	107.9	40.1	106+	31-	0.0	-0
VT_BEAHM	106.9	39.9	100-	42+	-0.0	0
VA21BFHB-19DH0184	104.6-	39.1	109+	29-	0.0	1
VA21BFHB-19DH0303	102.6-	39.7	110+	30-	0.0	0
VA20B-35 LA	99.6-	38.3-	106+	35	0.0	1
SB255	95.6-	39.5	103-	36	-0.0	3+
BARSOY	92.2-	38.1-	100-	36	-0.0	-0
CALYPSO	89.8-	35.0-	109+	30-	-0.0	2+
GREG	89.7-	49.1+	108+	40+	-0.0	0
AVALON	89.6-	38.6-	106+	35	-0.0	2+
VIOLETTA	75.0-	37.5-	106+	27-	-0.0	3+
FLAVIA	62.9-	36.1-	108+	26-	-0.0	6+
mean	116.0	40.2	105	36	-0.0	0
LSD	9.3	1.1	1	2	0.0	1
CV	5.7	1.9	0	4	NaN	155

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.
FHB = Fusarium Head Blight Score (0-9)
FDK = Fusarium Diseased Kernels (percent)
DON = Deoxynivalenol concentration in the kernels (ppm)
Awns, A = Awned, TA = Tip-Awned, and AL = Awnless