

2019 Fusarium Head Blight Screening Nursery Factsheet

Nidhi Rawat, Ph.D. Small grain pathologist and Jason Wight, Ph.D. Field Trials coordinator

Department of Plant Science and Landscape Architecture, University of Maryland

Fusarium Head Blight (FHB) has been a major challenge to wheat and barley yields and quality in the Mid-Atlantic region. To assist wheat growers in their planting decisions for Fusarium Head Blight management, popular local varieties of wheat and barley were evaluated for FHB reaction under heavy disease pressure in the misted nursery conducted at the Beltsville research farm of University of Maryland. Table 1 and Table 2 summarize the FHB indices and DON content values of the tested wheat and barley varieties, respectively. To provide the growers with consolidated information, data on statewide wheat yield trials has also been combined in Table 1. All the entries have been sorted according to the DON content values as it is one of the most important parameters of quality of harvested grain. Please note that these results are coming from a high disease pressure set-up without any fungicide treatment, and the DON contents as well as FHB indices are much higher than normal fields. But these should be considered excellent projections of high or low DON values in the fields. In Table 1 green cells indicate moderate resistance/ tolerance to FHB, orange cells may be considered moderately susceptible, whereas those highlighted in blue depict highly susceptible wheat varieties.

Table 1. DON content and FHB indices of wheat varieties

Entry	Brand	Statewide Yield Results			FHB Index	DON content (ppm)	R/S
		Yield Rank	Yield	Test Wt			
MAS116	Mid-Atlantic Seeds	30	73	58	12	3	Moderately Resistant
MAS105	Mid-Atlantic Seeds	41	72	58	4	4	
Catawba	Virginia Tech	78	64	58	12	5	
LW2867	Local Seed	45	72	57	3	6	
DG9750	Dyna-Gro	9	76	57	7	6	
15MDX20	UMD	51	71	58	9	6	
MBX932	Mercer Brand	27	73	58	6	7	
USG3228	UniSouth Genetics	75	65	56	8	7	
15MDX5	UMD	76	65	60	15	7	
MAS67	Mid-Atlantic Seeds	15	75	56	10	7	
USG3329	UniSouth Genetics	6	76	57	13	7	
ARW1813	Armor Seed	18	75	56	14	8	
AGRIMAXX463	AgriMAXX	28	73	57	6	8	
DG9862	Dyna-Gro	11	75	58	11	8	
AGRIMAXX485	AgriMAXX	19	74	58	6	8	
FS878	FS	40	72	56	21	8	
LW2848	Local Seed	12	75	58	8	9	
Viper	Syngenta	65	69	58	20	9	
MAS86	Mid-Atlantic Seeds	1	80	57	10	9	
MAS35	Mid-Atlantic Seeds	54	71	57	10	9	
MBX17-P-275	Mercer Brand	67	69	56	10	10	
FS875	FS	5	77	57	23	10	
VA09MAS1-12-5-1-1	VCIA/ VA Tech	44	72	59	26	11	
15MW131	UMD	70	67	59	14	11	
Liberty5658	VCIA/ VA Tech	23	73	59	15	11	
MAS61	Mid-Atlantic Seeds	60	71	57	18	12	
CP8550	Croplan	46	72	57	8	12	
AGRIMAXX415	AgriMAXX	16	75	59	15	12	
SH7200	Southern Harvest	52	71	58	34	12	

Entry	Brand	Statewide Yield Results			FHB Index	DON content	R/S
		Yield Rank	Yield	Test Wt			MR
MAS106	Mid-Atlantic Seeds	74	65	58	9	12	MR
VA-MD16W-299	Virginia Tech	63	70	59	16	13	
DG9941	Dyna-Gro	10	75	56	15	13	
VA14HRW-25	VCIA	56	71	59	33	13	
SY007	Syngenta	29	73	57	17	14	Moderately Susceptible
MAS316	Mid-Atlantic Seeds	47	71	57	9	14	
SH4400	Southern Harvest	21	74	57	30	14	
Luisa	Cover Crop 100	48	71	59	17	14	
AGRIMAXX480	AgriMAXX	59	71	60	45	14	
25R74	Pioneer	4	77	57	9	14	
MBX17-M-245	Mercer Brand	39	72	56	40	14	
Voodoo	Armor Seed	34	73	58	14	15	
15MDX19	UMD	71	67	58	12	15	
CP8800	Croplan	13	75	58	16	15	
EXP 1986	AgriMAXX	38	72	57	39	15	
Hilliard	VCIA/ VA Tech	49	71	58	21	16	
VA14HRW-41	VCIA	69	68	59	20	16	
Spirit	Armor Seed	64	70	58	26	16	
MAS6	Mid-Atlantic Seeds	37	72	57	22	16	
USG3118	UniSouth Genetics	72	67	59	32	17	
WX19712	Dyna-Gro	24	73	57	16	18	
USG3536	UniSouth Genetics	43	72	57	8	18	
WX19714	Dyna-Gro	25	73	57	9	18	
AGRIMAXX495	AgriMAXX	66	69	58	13	19	
AGRIMAXX473	AgriMAXX	35	73	58	9	19	
LW2958	Local Seed	31	73	58	12	19	
DG9932	Dyna-Gro	33	73	58	12	20	
CP9606	Croplan	57	71	56	18	21	
SY100	Syngenta	7	76	56	18	21	
Mayhem	Armor Seed	58	71	57	10	22	
MBX969	Mercer Brand	17	75	57	16	22	
L11719	Limagrain Cereal Seed	8	76	58	27	22	
ARW1883	Armor Seed	62	70	58	19	22	
EXP 1902	AgriMAXX	36	73	57	20	22	
VA13W-38	VCIA/ VA Tech	53	71	59	17	22	
5210HR	Virginia Tech	77	65	56	22	23	
25R25	Pioneer	2	79	57	14	24	
SH7510	Southern Harvest	50	71	59	29	24	
MAS108	Mid-Atlantic Seeds	26	73	58	26	24	
USG3316	UniSouth Genetics	14	75	58	16	24	
USG3790	UniSouth Genetics	3	78	57	29	25	
MAS7	Mid-Atlantic Seeds	55	71	58	52	26	
LWX19D	Local Seed	32	73	58	31	26	
LW2937	Local Seed	20	74	56	20	27	
Vision 45	VCIA	73	67	55	41	27	
SY547	Syngenta	61	70	57	11	28	
AGRIMAXX454	AgriMAXX	42	72	58	18	30	
15MDX18	UMD	68	69	59	19	31	
AGRIMAXX486	AgriMAXX	22	74	57	17	37	

Table 2. DON content and FHB indices of local barley varieties tested

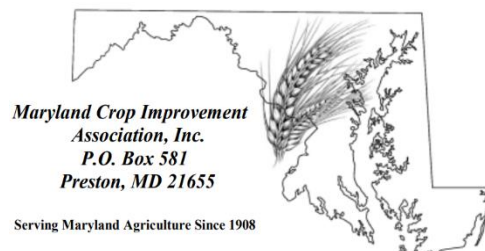
Variety	Two/ Six row	FHB indices	DON content (ppm)
Calypso	Two	23	9.2
Casanova	Six	39	16.6
VA11B-141 LA	Six	32	17.7
Thoroughbred	Six	34	19.3
Amaze 10	Six	38	20.3
Nerea	Six	31	22.0
Nomini	Six	29	22.3
Secretariat	Six	38	27.6
Hirondella	Six	30	28.1
Flavia	Six	40	29.9
Violetta	Two	38	39.4

In case of any questions, please contact: Nidhi Rawat <nidhirwt@umd.edu> or Jason Wight <jpwright@umd.edu>

This work was supported by US Wheat and Barley Scab Initiative, Maryland Crop Improvement Association and MD Grain Utilization Producers Board.



**U.S. Wheat & Barley
Scab Initiative**



**Maryland Grain Producers
Utilization Board**

UNIVERSITY OF
MARYLAND
EXTENSION
Solutions in your community