

# 2023 WHEAT GUIDE

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Mid-Atlantic Seeds

*...because every bushel counts.*

# PLANTING GUIDE & USE INFORMATION

## Wheat Planting Chart

Seed Sizes (seeds/lb.)	Target Seeding Rate (millions of seeds per acre)					
	1.6	1.7	1.8	1.9	2.0	2.1
	Amount of Seed Required (lbs/ac)					
10,000	160	170	180	190	200	210
11,000	145	155	164	173	182	191
12,000	133	142	150	158	167	175
13,000	123	131	138	146	154	162
14,000	114	121	129	136	143	150
15,000	107	113	120	127	133	140
16,000	100	106	113	119	125	131
17,000	94	100	106	111	118	124
18,000	89	94	100	106	111	117

source: Michigan state university extension

## Recommended Application Icon Legend



STRAW



DOUBLE CROP



HIGH YIELD



DEFENSIVE



FORAGE

Fusarium Head Blight ratings followed by a \* indicate FHB markers for partial head scab resistance

Questions? Contact us at 800-854-6251 or visit [www.midatlanticseeds.com](http://www.midatlanticseeds.com)

# 2023 WHEAT PRODUCTS

## WHEAT SUMMARY CHART

	AGRONOMIC CHARACTERISTICS						DISEASE RATINGS					SOIL ADAPTABILITY				
	HEAD TYPE	MATURITY	PLANT HEIGHT	TEST WEIGHT	STRAW STRENGTH	LODGING	FHB - HEAD SCAB	STRIPE RUST	LEAF RUST	POWDERY MILDEW	HESSIAN FLY	LIGHT	MEDIUM	HEAVY	POORLY DRAINED	
	MAS #2	S	M	VT	EX	VG	G	G	G	G	S	VG	EX	VG	VG	
	MAS #67	S	M	MS	VG	EX	VG	EX	VG	VG	S	EX	EX	EX	EX	
	MAS #86	A	M	T	G	G	VG	EX	AV	G	BCDL	EX	EX	VG	VG	
	MAS #106	AL	UE	MT	EX	VG	VG	EX	P	VG	S	EX	EX	EX	EX	
	MAS #133	A	M	M	VG	VG	VG	G	AV	EX	-	EX	EX	EX	EX	
	MAS #139	A	ME	MS	EX	EX	EX	P	VG	G	AV	-	EX	EX	EX	VG
	MAS #143	A	ML	M	EX	EX	EX	VG	VG	VG	G	BO	EX	EX	EX	EX
	MAS #155	A	M	M	VG	VG	VG	VG	G	AV	G	B	EX	EX	VG	G
NEW	MAS #164	A	ME	M	G	VG	VG	VG	VG	VG	VG	S	EX	EX	VG	G
NEW	MAS #178	S	M	MT	VG	VG	EX	VG	AV	G	EX	-	EX	EX	VG	VG
	MAS #189	A	E	MT	EX	VG	G	G	G	G	G	-	EX	EX	EX	EX
NEW	MAS #190	A	ML	MS	G	VG	EX	VG	G	VG	VG	BCDL	EX	EX	EX	G
	MAS #316	A	M	MT	EX	EX	VG	VG	VG	G	VG	BDL	EX	EX	VG	VG

HEAD TYPE: S-SMOOTH, A-AWNED, AL-AWNLETTE

MATURITY: UE-ULTRA EARLY, E-EARLY, ME-MEDIUM EARLY, M-MEDIUM, ML-MEDIUM LATE

PLANT HEIGHT: S-SHORT, MS-MEDIUM SHORT, M-MEDIUM, MT-MEDIUM TALL, T-TALL, VT-VERY TALL

GENERAL RATINGS: P-POOR, AV-AVERAGE, G-GOOD, VG-VERY GOOD, EX-EXCELLENT

HESSIAN FLY: S-SUSCEPTIBLE

# MAS #2



**SMOOTH HEAD | MEDIUM MATURITY | VERY TALL HEIGHT**

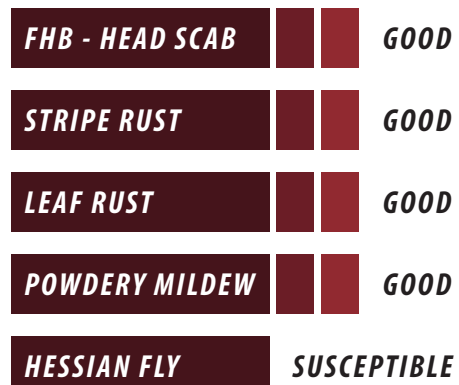
## KEY POINTS

- Excellent straw production choice with exceptional straw quality and color
- Outstanding forage variety with very good digestibility and total tonnage
- Strong grain yields with excellent test weight and Head Scab tolerance

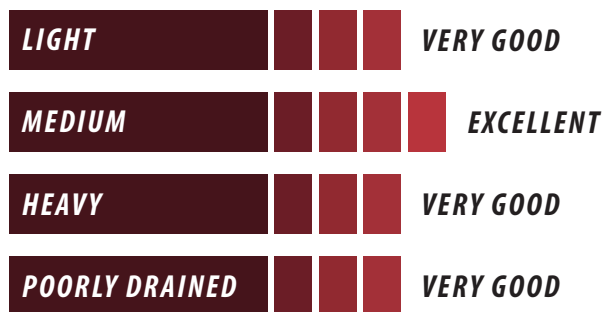
### AGRONOMIC TRAITS



### DISEASE RATINGS



### SOIL ADAPTABILITY



### RECOMMENDATIONS

*Plant these varieties on additional farm acres to decrease risk and maximize yields when planting MAS #2*

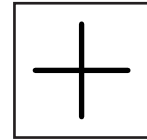
**MAS #67** - for increased forage yields

**MAS #86** - for increased yields

**MAS #178** - for increased yields

**Call 800-854-6251 for seed count**

# MAS #67



SMOOTH HEAD | MEDIUM MATURITY | MEDIUM-SHORT HEIGHT

## KEY POINTS

- Best defensive wheat variety with excellent disease tolerance
- Excellent forage choice with very good tonnage yields and exceptional quality
- Low tillering variety with superior primary head development
- Plant at higher populations for increased yield potential

### AGRONOMIC TRAITS

TEST WEIGHT		VERY GOOD
STRAW STRENGTH		EXCELLENT
LODGING		VERY GOOD

### SOIL ADAPTABILITY

LIGHT		EXCELLENT
MEDIUM		EXCELLENT
HEAVY		EXCELLENT
POORLY DRAINED		EXCELLENT

### DISEASE RATINGS

FHB - HEAD SCAB		EXCELLENT
STRIPE RUST		VERY GOOD
LEAF RUST		VERY GOOD
POWDERY MILDEW		GOOD
HESSIAN FLY		SUSCEPTIBLE

### RECOMMENDATIONS

Plant these varieties on additional farm acres to decrease risk and maximize yields when planting MAS #67

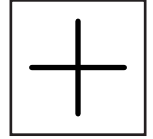
MAS #86 - for increased yields

MAS #316 - for increased yields

MAS #178 - for increased yields

Call 800-854-6251 for seed count

# MAS #86

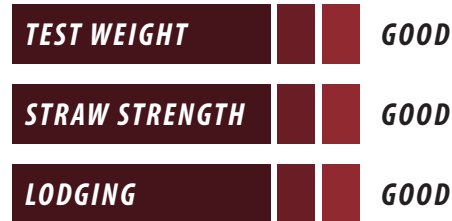


**AWNED HEAD | MEDIUM MATURITY | TALL HEIGHT**

## KEY POINTS

- High yielding wheat line with tall height and excellent tillering
- Defensive variety with excellent Head Scab resistance and good standability
- Very good straw yields for maximized profit

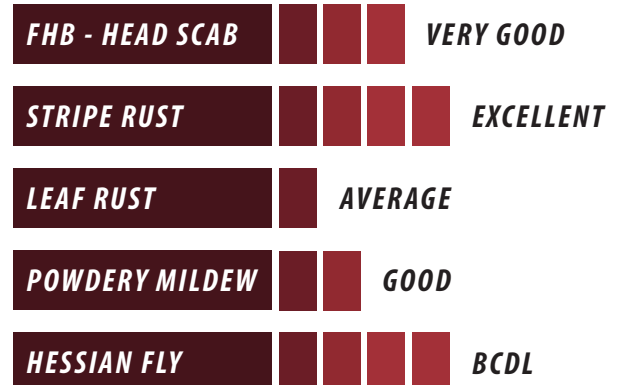
### AGRONOMIC TRAITS



### SOIL ADAPTABILITY



### DISEASE RATINGS



### RECOMMENDATIONS

Plant these varieties on additional farm acres to decrease risk and maximize yields when planting MAS #86

MAS #133 - for increased yields

MAS #155 - for increased yields

MAS #164 - for increased yields

MAS #190 - for increased yields

**Estimated Seed Count (seeds/lb.) - 9,800**

# MAS #106

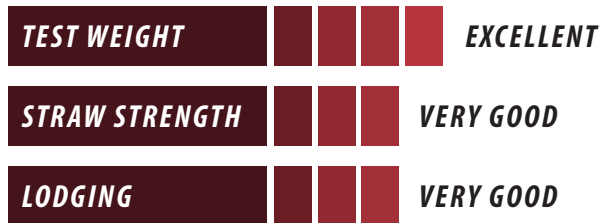


AWNLETTE HEAD | ULTRA EARLY MATURITY | MEDIUM-TALL HEIGHT

## KEY POINTS

- Earliest wheat variety allowing for the best double cropping scenario
- Very good Head Scab tolerance with excellent DOM scores and excellent test weight
- Accelerated grain fill period and quick drydown rate allow for earlier double crop soybean planting

### AGRONOMIC TRAITS



### DISEASE RATINGS



### SOIL ADAPTABILITY



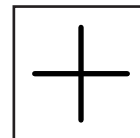
### RECOMMENDATIONS

Plant these varieties on additional farm acres to decrease risk and maximize yields when planting MAS #106

**Double Crop Soybeans** - excellent wheat for double cropping with soybeans

Estimated Seed Count (seeds/lb.) - 12,000

# MAS #133



**AWNED HEAD | MEDIUM MATURITY | MEDIUM-TALL HEIGHT**

## KEY POINTS

- Elite high tillering and high yielding wheat variety
- Strong grain quality with strong, stiff stalks
- Great combination of high yields with defensive traits resulting in a highly reliable wheat variety

### AGRONOMIC TRAITS

TEST WEIGHT		VERY GOOD
STRAW STRENGTH		VERY GOOD
LODGING		VERY GOOD

### DISEASE RATINGS

FHB - HEAD SCAB		GOOD
STRIPE RUST		AVERAGE
LEAF RUST		EXCELLENT
POWDERY MILDEW		EXCELLENT
HESSIAN FLY	-	

### SOIL ADAPTABILITY

LIGHT		EXCELLENT
MEDIUM		EXCELLENT
HEAVY		EXCELLENT
POORLY DRAINED		EXCELLENT

### RECOMMENDATIONS

Plant these varieties on additional farm acres to decrease risk and maximize yields when planting MAS #133

**Broadly adapted** - plant with any Mid-Atlantic Seeds wheat variety

**Estimated Seed Count (seeds/lb.) - 10,000**



# MAS #139



AWNED HEAD | MEDIUM-EARLY MATURITY | MEDIUM-SHORT HEIGHT

## KEY POINTS

- High management wheat variety with excellent yields and great tillering
- Responds well to fungicide applications - *must apply fungicide for Head Scab*
- Medium-short height with decreased lodging risks due to high yields

### AGRONOMIC TRAITS

TEST WEIGHT		EXCELLENT
STRAW STRENGTH		EXCELLENT
LODGING		EXCELLENT

### DISEASE RATINGS

FHB - HEAD SCAB		POOR
STRIPE RUST		VERY GOOD
LEAF RUST		GOOD
POWDERY MILDEW		AVERAGE
HESSIAN FLY	-	

### SOIL ADAPTABILITY

LIGHT		EXCELLENT
MEDIUM		EXCELLENT
HEAVY		EXCELLENT
POORLY DRAINED		VERY GOOD

### RECOMMENDATIONS

Plant these varieties on additional farm acres to decrease risk and maximize yields when planting MAS #139

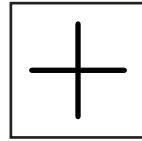
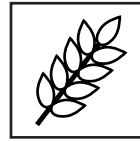
MAS #67 - for increased yield and Head Scab tolerance

MAS #86 - for increased yield and Head Scab tolerance

MAS #316 - for increased yield and Head Scab tolerance

Estimated Seed Count (seeds/lb.) - 10,850

# MAS #143



**AWNED HEAD | MEDIUM-LATE MATURITY | MEDIUM HEIGHT**

## KEY POINTS

- Strong combination of high yields and exceptional defensive characteristics
- Broadly adapted to Mid-Atlantic soils with medium-late maturity and a strong response to early planting
- Excellent choice for operations looking to maximize yields

### AGRONOMIC TRAITS

<b>TEST WEIGHT</b>		<b>EXCELLENT</b>
<b>STRAW STRENGTH</b>		<b>EXCELLENT</b>
<b>LODGING</b>		<b>EXCELLENT</b>

### SOIL ADAPTABILITY

<b>LIGHT</b>		<b>EXCELLENT</b>
<b>MEDIUM</b>		<b>EXCELLENT</b>
<b>HEAVY</b>		<b>EXCELLENT</b>
<b>POORLY DRAINED</b>		<b>EXCELLENT</b>

### DISEASE RATINGS

<b>FHB - HEAD SCAB</b>		<b>VERY GOOD</b>
<b>STRIPE RUST</b>		<b>VERY GOOD</b>
<b>LEAF RUST</b>		<b>VERY GOOD</b>
<b>POWDERY MILDEW</b>		<b>GOOD</b>
<b>HESSIAN FLY</b>		<b>BO</b>

### RECOMMENDATIONS

*Plant these varieties on additional farm acres to decrease risk and maximize yields when planting MAS #143*

**MAS #133** - for high yield and earlier maturity

**MAS #139** - for high yield and earlier maturity

**MAS #155** - for high yield and earlier maturity

**Call 800-854-6251 for seed count**

# MAS #155



AWNED HEAD | MEDIUM MATURITY | MEDIUM HEIGHT

## KEY POINTS

- Medium maturity variety with medium height
- Excellent yields with very good test weight
- Excellent tillering - even on light soils

### AGRONOMIC TRAITS

TEST WEIGHT		VERY GOOD
STRAW STRENGTH		VERY GOOD
LODGING		VERY GOOD

### DISEASE RATINGS

FHB - HEAD SCAB		VERY GOOD
STRIPE RUST		GOOD
LEAF RUST		AVERAGE
POWDERY MILDEW		GOOD
HESSIAN FLY		B

### SOIL ADAPTABILITY

LIGHT		EXCELLENT
MEDIUM		EXCELLENT
HEAVY		VERY GOOD
POORLY DRAINED		GOOD

### RECOMMENDATIONS

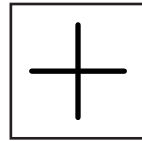
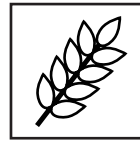
Plant these varieties on additional farm acres to decrease risk and maximize yields when planting MAS #155

MAS #139 - for higher yields under management

Estimated Seed Count (seeds/lb.) - 11,500

NEW

# MAS #164



AWNED HEAD | MEDIUM-EARLY MATURITY | MEDIUM HEIGHT

## KEY POINTS

- High yielding wheat line with an excellent disease package
- Moves across Mid-Atlantic soils with a medium-early maturity
- Excellent choice for operators looking for advanced yields on variable soils

### AGRONOMIC TRAITS

TEST WEIGHT		GOOD
STRAW STRENGTH		VERY GOOD
LODGING		VERY GOOD

### SOIL ADAPTABILITY

LIGHT		EXCELLENT
MEDIUM		EXCELLENT
HEAVY		VERY GOOD
POORLY DRAINED		GOOD

### DISEASE RATINGS

FHB - HEAD SCAB		VERY GOOD
STRIPE RUST		VERY GOOD
LEAF RUST		VERY GOOD
POWDERY MILDEW		VERY GOOD
HESSIAN FLY		SUSCEPTIBLE

### RECOMMENDATIONS

Plant these varieties on additional farm acres to decrease risk and maximize yields when planting MAS #164

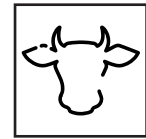
MAS #143 - for increased yields

MAS #316 - for increased yields

Estimated Seed Count (seeds/lb.) - 10,250

NEW

# MAS #178



WHEAT PRODUCTS

SMOOTH HEAD | MEDIUM MATURITY | MEDIUM-TALL HEIGHT

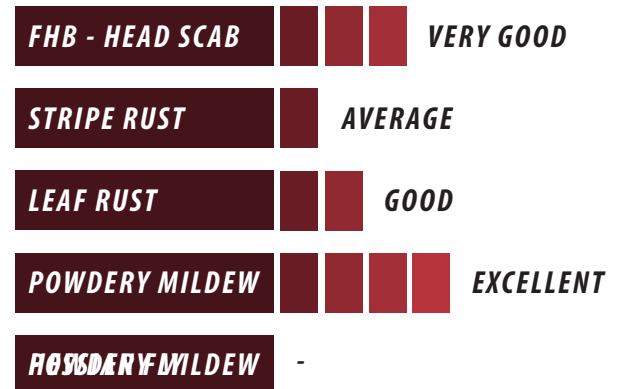
## KEY POINTS

- New smooth release with strong Head scab resistance
- Good height with strong stalks for very good straw production
- Position on heavy soils under high fertility for best response

### AGRONOMIC TRAITS



### DISEASE RATINGS



### SOIL ADAPTABILITY



### RECOMMENDATIONS

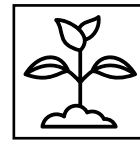
Plant these varieties on additional farm acres to decrease risk and maximize yields when planting MAS #178

MAS #2 - for increased yields

MAS #67 - for increased yields

Estimated Seed Count (seeds/lb.) - 11,500

# MAS #189



**AWNED HEAD | EARLY MATURITY | MEDIUM-TALL HEIGHT**

## KEY POINTS

- Early maturity wheat variety
- High yields with excellent test weight
- Moves well over multiple soil types

### AGRONOMIC TRAITS



### DISEASE RATINGS



### SOIL ADAPTABILITY



### RECOMMENDATIONS

*Plant these varieties on additional farm acres to decrease risk and maximize yields when planting MAS #189*

**Double Crop Soybeans** - excellent wheat for double cropping with soybeans

**Estimated Seed Count (seeds/lb.) - 10,750**

NEW

# MAS #190

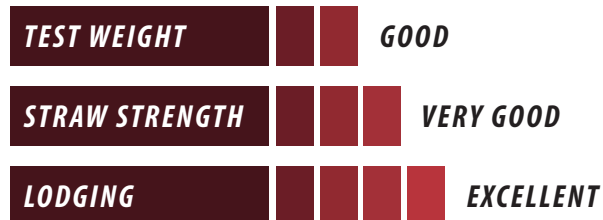


AWNED HEAD | MEDIUM-LATE MATURITY | MEDIUM-SHORT HEIGHT

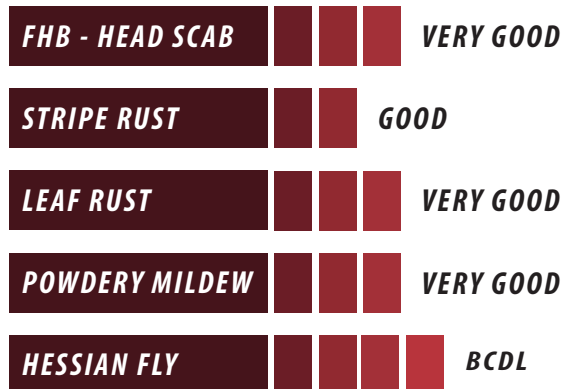
## KEY POINTS

- Elite high yields under management
- Position on light to moderate soils
- Responds to high populations and high fertility under management

### AGRONOMIC TRAITS



### DISEASE RATINGS



### SOIL ADAPTABILITY



### RECOMMENDATIONS

Plant these varieties on additional farm acres to decrease risk and maximize yields when planting MAS #190

MAS #86 - for increased yields

MAS #316 - for increased yields

Estimated Seed Count (seeds/lb.) - 11,250

# MAS #316

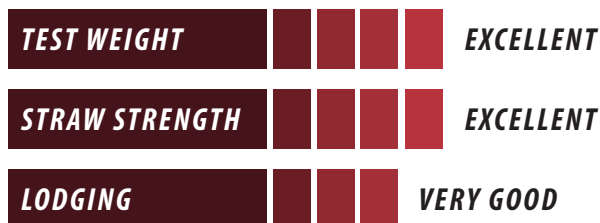


**AWNED HEAD | MEDIUM MATURITY | MEDIUM-TALL HEIGHT**

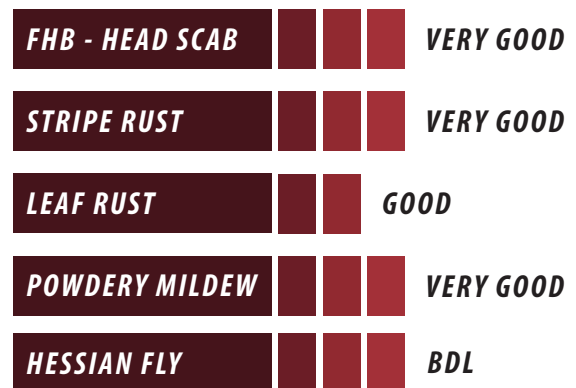
## KEY POINTS

- High yielding wheat line with medium-tall plant height and good Head Scab tolerance
- Great combination of high yields and high test weights
- Excellent choice for straw production

### AGRONOMIC TRAITS



### DISEASE RATINGS



### SOIL ADAPTABILITY



### RECOMMENDATIONS

*Plant these varieties on additional farm acres to decrease risk and maximize yields when planting MAS #316*

**MAS #133** - for increased yields

**MAS #155** - for increased yields

**MAS #164** - for increased yields

**MAS #190** - for increased yields

**Estimated Seed Count (seeds/lb.) - 10,600**



# ENLIST E3<sup>®</sup> SOYBEANS DOUBLE CROP EARLY ORDER PROGRAM



*MAXIMIZE YOUR RETURN ON DOUBLE CROP ACRES*

**1**

## **Purchase**

Mid-Atlantic Seeds  
brand wheat during the  
2023 growing season

**2**

## **Pre-order**

Mid-Atlantic Seeds brand  
Enlist E3<sup>®</sup> traited  
soybeans on or before  
November 15, 2023

**3**

## **Receive**

\$1 per unit discount on  
Enlist E3<sup>®</sup> traited  
soybeans for each unit  
of wheat purchased in 2023

Maximize your returns by pre-ordering your double crop Mid-Atlantic Seeds soybean order for next growing season. For every unit of wheat you purchase in 2023, receive a \$1 per unit discount on Enlist E3<sup>®</sup> soybeans purchased for the 2024 growing season.

**Contact your local dealer or MAS representative  
to take advantage of this program before November 15, 2023  
800-854-6251**

In order to qualify for program discount, grower must have purchased and planted Mid-Atlantic Seeds brand wheat in the 2023 growing season - any wheat returned will not qualify for program discount. Soybean orders must be received by Mid-Atlantic seeds on or before November 15, 2023 to qualify for program discount. All orders must be placed through your local dealer or MAS representative. For additional information please contact your local dealer or contact us at [www.midatlanticseeds.com](http://www.midatlanticseeds.com)

ENLIST E3<sup>®</sup> DOUBLE CROP PROGRAM

# TRIAL HIGHLIGHTS

VARIETY	PLACE	TRIAL	LOCATION	YIELD (BU/AC)
MAS #2	2nd	2021 UMD Wheat Trials	Beltsville, MD	105.4
MAS #67	1st	2022 Virginia Tech Wheat Trials	Blackstone, VA	80.7
MAS #67	2nd	2020 Virginia Tech Wheat Trials	Fusarium Head Blight Trial - 2 year summary	-
MAS #86	2nd	2023 Delaware State Wheat Trials	Kent, DE	127.4
MAS #86	1st	2022 Virginia Tech Wheat Trials	Shenandoah County, VA	92.0
MAS #86	2nd	2022 Delaware State Wheat Trials	Selbyville, DE	105.9
MAS #86	2nd	2021 Virginia Tech Wheat Trials	Holland, VA	82.0
MAS #86	2nd	2021 Virginia Tech Wheat Trials	Fusarium Head Blight Trial - 3 year summary	-
MAS #106	1st	2020 Virginia Tech Wheat Trials	Fusarium Head Blight Trial	-
MAS #133	1st	2021 Virginia Tech Wheat Trials	Shenandoah County, VA	130.0
MAS #133	2nd	2021 UMD Wheat Trials	Wye Mills, MD	116.5
MAS #133	1st	2020 UMD Wheat Trials	Beltsville, MD	73.7
MAS #133	2nd	2020 UMD Wheat Trials	Statewide Summary	99.2
MAS #133	2nd	2020 UMD Wheat Trials	Disease Ratings Trial	-
MAS #139	2nd	2023 UMD Wheat Trials	Wye Mills, MD	187.7
MAS #139	2nd	2023 Virginia Tech Wheat Trials	Blacksburg, VA	140.7
MAS #139	1st	2021 UMD Wheat Trials	Keedysville, MD	133.0
MAS #139	2nd	2021 Virginia Tech Wheat Trials	Painter, VA	65.2
MAS #143	1st	2022 Virginia Tech Wheat Trials	All Location Summary - 3 year summary	90.3
MAS #143	1st	2021 Virginia Tech Wheat Trials	All Location Summary - 2 year summary	93.3
MAS #143	1st	2020 Delaware State Wheat Trials	Kent, DE	116.6
MAS #143	1st	2020 Virginia Tech Wheat Trials	Shenandoah County, VA	112.2
MAS #143	1st	2020 Virginia Tech Wheat Trials	All Location Summary	102.5
MAS #143	2nd	2020 Virginia Tech Wheat Trials	Painter, VA	107.1
MAS #155	1st	2023 Virginia Tech Wheat Trials	Blacksburg, VA	143.1
MAS #155	2nd	2023 UMD Wheat Trials	Beltsville, MD	147.7
MAS #190	2nd	2023 Virginia Tech Wheat Trials	Orange, VA	144.6

We know your wheat selection is just as important as any other decision on your farm. That's why we back our wheat varieties with seasons of high yields and constantly adapt our product line up for your operation's needs. We believe you deserve access to top tier products chosen for your geographic area - giving you a regional advantage.

VARIETY	PLACE	TRIAL	LOCATION	YIELD (BU/AC)
MAS #316	1st	2023 Delaware State Wheat Trials	Georgetown, DE	119.1
MAS #316	1st	2021 Virginia Wheat Yield Challenge	Guy Gochenour - Shenandoah County	120.6
MAS #316	1st	2021 Virginia Tech Wheat Trials	Fusarium Head Blight Trial - 2 year summary	-
MAS #316	1st	2021 Virginia Tech Wheat Trials	Fusarium Head Blight Trial - 3 year summary	-
MAS #316	2nd	2021 Virginia Tech Wheat Trials	Blackstone, VA	73.6

## IDENTIFYING AND PREVENTING COMMON DISEASES



Source - University of Nebraska

### **FUSARIUM HEAD BLIGHT**

Fusarium Head Blight, caused by *Fusarium* fungi, poses a significant threat to wheat crops. Identify FHB by observing bleached spikelets and shriveled grains during flowering. Prevention strategies include planting resistant varieties, implementing proper crop rotation, and applying fungicides at the appropriate timing. Early detection and prompt action can minimize the impact of FHB on grain quality and yield.

### **GLUME BLOTCH**

Glume Blotch, caused by the *Stagonospora nodorum* fungus, affects glumes and awns. Look for dark brown lesions on the glumes. Crop rotation, planting resistant varieties, and timely fungicide applications are key prevention measures. Regular scouting of wheat fields can help identify Glume Blotch early and prevent significant yield losses.



Source - Purdue Extension



Source - University of Nebraska

### **POWDERY MILDEW**

Powdery Mildew appears as a white or grayish powdery growth on leaves, stems, and spikes. Stunted growth and reduced photosynthesis are common symptoms. Create favorable airflow by providing adequate plant spacing. Fungicides can be employed when necessary, but selecting resistant varieties is an effective strategy. Early detection and intervention can prevent powdery mildew from spreading and causing significant damage.



**1-800-854-6251**  
**WWW.MIDATLANTICSEEDS.COM**  
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**YORK, PA 17402**