



HERITAGE[®]

Cooperative

**PREMIUM GENETICS & SEED
TRAITS FOR OVER 60 YEARS**



2025 SEED GUIDE

LETTER FROM THE PRESIDENT & CEO

Heritage Cooperative Members,

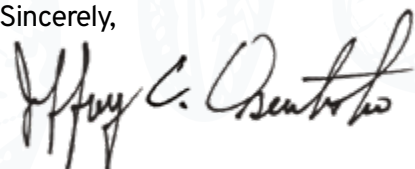
Heritage has offered its members multiple seed brands for many years including Shur Grow Seeds as well as other key partner brands. In 2025, we are proud to offer Catalyst®, a new soybean brand offering four new varieties with unique genetics featuring Enlist E3™ technology. Expanding our brand offerings will ensure our commitment to our members that we provide availability to all the best genetics in the industry.

This year, in the spirit of our core value of Continuous Improvement, we have once again reevaluated and elevated our proprietary brand, Shur Grow Seeds and Shur Coat Seed Treatment, to provide our members with new genetics, traits, and leading seed treatment blends. We understand that needs change and soil types vary across the state, therefore, we have invested in developing a more robust offering for growers to achieve the highest yield potential for their operations.

Shur Grow Seeds, which has been part of the Heritage story for 60 years, provides our members with premium genetics and seed traits. Shur Grow was first introduced to Ohio farmers in the early 1960s by The Ohio Grain Company. In 1984, the brand released its first exclusive genetics. In 1992, Champaign Landmark, Inc. acquired the brand which opened doors to innovative technologies and plant breeding, further broadening the Shur Grow brand lineup. We are proud of the long history and dependable performance of the Shur Grow seed line.

As the seed industry continues to evolve its genetics, traits, and treatments at a rapid pace, you can count on Heritage Cooperative to provide quality seed solutions, with dependable performance, to achieve your profitability goals.

Sincerely,



Jeffrey C. Osentoski, President & CEO
Heritage Cooperative, Inc.



Enlist® herbicides

Exceptional weed control to fit your needs.

Made for use with cotton, soybeans and corn with the Enlist® trait, Enlist Duo® and Enlist One® herbicides each feature 2,4-D choline with Colex-D® technology.

The result: unrivaled weed control designed to land and stay on target.

Enlist Duo® herbicide

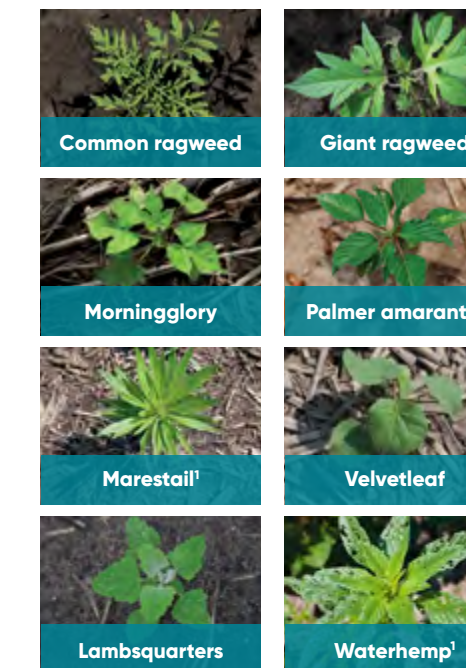
Convenient proprietary blend of 2,4-D choline and glyphosate

Enlist One® herbicide

Straight goods 2,4-D choline with additional tank-mix flexibility

Proprietary Colex-D technology enables on-target application, delivering unrivaled weed control to protect your crops – and your neighbor's crops.

Apply with confidence to take down the toughest weeds, including:



¹ May require a broader management plan including timely application and use of a soil residual herbicide.

SEED TRAIT MANAGEMENT

Bayer is a member of Excellence Through Stewardship® (ETS). Bayer products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with Bayer's Policy for Commercialization of Biotechnology-Derived Plant Products in Commodity Crops. Commercialized products have been approved for import into key export markets with functioning regulatory systems. Any crop or material produced from this product can only be exported to, or used, processed or sold in countries where all applicable regulatory approvals have been granted. It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted. Growers should talk to their grain handler or product purchaser to confirm their buying position for this product. Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS.

B.t. products may not yet be registered in all states. Check with your seed brand representative for the registration status in your state.



Refuge seed may not always contain the DroughtGard® trait. **IMPORTANT IRM INFORMATION:** Certain products are sold as RIB Complete® corn blend products, and do not require the planting of a structured refuge except in the Cotton-Growing Area where corn earworm is a significant pest. Products sold without refuge in the bag (non-RIB Complete) require the planting of a structured refuge. See the IRM/Grower Guide for additional information. Always read and follow IRM requirements.



Roundup Ready® Technology contains genes that confer tolerance to glyphosate. Roundup Ready® 2 Technology contains genes that confer tolerance to glyphosate. Plants that are not tolerant to glyphosate may be damaged or killed if exposed to those herbicides. Insect control technology provided by Vip3A is utilized under license from Syngenta Crop Protection AG. Herculex® is a registered trademark of Dow AgroSciences LLC. Agrisure Viptera® is a registered trademark of a Syngenta group company. Respect the Refuge and Corn Design® and Respect the Refuge® are registered trademarks of National Corn Growers Association. Acceleron®, DroughtGard®, RIB Complete®, Roundup Ready 2 Technology and Design®, Roundup Ready®, SmartStax®, Trecepta®, VT Double PRO®, VT4PRO™ are trademarks of Bayer Group



Before opening a bag of seed, be sure to read, understand and accept the stewardship requirements, **including applicable refuge requirements for insect resistance management**, for the biotechnology traits expressed in the seed as set forth in the Technology/Stewardship Agreement that you sign. By opening and using a bag of seed, you are reaffirming your obligation and agreement to comply with the most recent stewardship requirements.



Seeds containing the PowerCore® Enlist®, PowerCore® Enlist® Refuge Advanced®, and Enlist® Corn - REFUGE traits are protected under one or more U.S. patents which can be found at: www.traitsstewardship.com. The purchase of this traited seed includes a limited license to produce a single crop in the United States. The use of seed from such a crop and/or the progeny thereof for propagation or seed multiplication or for production or development of a hybrid or different variety of seed is strictly prohibited. You acknowledge and agree to be bound by the terms and conditions of the following documents in effect at the time of planting of this seed: (i) the Corteva Agriscience Technology Use Agreement and (ii) the Product Use Guides for all technologies in this seed, including the Herbicide Resistance Management (HRM), and Use requirements.

To plant PowerCore Enlist, PowerCore Enlist Refuge Advanced, and Enlist Corn - REFUGE seed, you must have a limited license from Corteva Agriscience (or other appropriate affiliates). In consideration of the foregoing, Corteva Agriscience grants to the Grower a limited license to use its technology to produce only a single commercial crop in the United States under the terms and conditions set forth in the Technology Use Agreement in effect at the time of planting of this seed.

Enlist E3® soybean seeds containing the Enlist® trait can only be used to plant a single commercial crop. It is unlawful to save and replant Enlist E3® soybeans. Additional information and limitations on the use of these products are provided in the Corteva Agriscience Technology Use Agreement and Enlist® Soybean Product Use Guide. U.S. patents for Corteva Agriscience technologies can be found at the following webpage: www.corteva.us/Resources/trait-stewardship.html.

Corteva Agriscience is a member of Excellence Through Stewardship® (ETS). Corteva Agriscience products are commercialized in accordance with ETS Product Launch Stewardship Guidance and in compliance with the Corteva Agriscience policies regarding stewardship of those products. In line with these guidelines, Corteva Agriscience's product launch process for responsible launches of new products includes a long-standing process to evaluate export market information, value chain consultations, and regulatory functionality. Growers and end-users must take all steps within their control to follow appropriate stewardship requirements and confirm their buyer's acceptance of the grain or other material being purchased. For more detailed information on the status of a trait or stack, please visit www.biotradestatus.com.

Excellence Through Stewardship® is a registered trademark of Global Stewardship Group.

Following burndown, Enlist Duo® and Enlist One® herbicides with Colex-D® technology are the only herbicides containing 2,4-D that are authorized for preemergence and postemergence use with Enlist® corn and soybeans. Consult Enlist® herbicide labels for weed species controlled. Enlist Duo and Enlist One herbicides are not registered for use or sale in all states and counties; are not registered in AK, CA, CT, HI, ID, MA, ME, MT, NH, NV, OR, RI, UT, VT, WA and WY; and have additional subcounty restrictions in AL, GA, TN and TX, while existing county restrictions still remain in FL. All users must check "Bulletins Live! Two" no earlier than six months before using Enlist One or Enlist Duo. To obtain "Bulletins," consult epa.gov/espp/, call 1-844-447-3813, or email ESPP@epa.gov. You must use the "Bulletin" valid for the month and state and county in which Enlist One or Enlist Duo are being applied. Contact your state pesticide regulatory agency if you have questions about the registration status of Enlist® herbicides in your area. **ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. IT IS A VIOLATION OF FEDERAL AND STATE LAW TO USE ANY PESTICIDE PRODUCT OTHER THAN IN ACCORDANCE WITH ITS LABELING. ONLY USE FORMULATIONS THAT ARE SPECIFICALLY LABELED FOR SUCH USE IN THE STATE OF APPLICATION. USE OF PESTICIDE PRODUCTS, INCLUDING, WITHOUT LIMITATION, 2,4-D-CONTAINING PRODUCTS NOT AUTHORIZED FOR USE WITH ENLIST CORN AND SOYBEANS, MAY RESULT IN OFF-TARGET DAMAGE TO SENSITIVE CROPS/AREAS AND/OR SUSCEPTIBLE PLANTS, IN ADDITION TO CIVIL AND/OR CRIMINAL PENALTIES.** Additional product-specific stewardship requirements for Enlist crops, including the Enlist Product Use Guide, can be found at www.traitsstewardship.com.

POWERCORE® is a registered trademark of Bayer Group. POWERCORE® multi-event technology developed by Corteva Agriscience and Bayer Group. Liberty®, LibertyLink® and the Water Droplet Design are registered trademarks of BASF. ®Roundup and Roundup Ready are registered trademarks of Bayer Group. Always follow IRM, grain marketing and all other stewardship practices and pesticide label directions. B.t. products may not yet be registered in all states. Check with your seed representative for the registration status in your state. The transgenic soybean event in Enlist E3® soybeans is jointly developed and owned by Corteva Agriscience and M.S. Technologies, L.L.C. The transgenic soybean event in Enlist E3® soybeans is jointly developed and owned by Corteva Agriscience and M.S. Technologies, L.L.C.

Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

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CORN TRAITS



The Agrisure® GT trait provides tolerance to in-crop applications of glyphosate-based herbicides. This hybrid is an excellent option for refuge acres in a structured refuge operation.



The Duracade® trait stack provides multiple modes of action against corn rootworm and corn borer, as well as suppression of ear-feeding insects. This trait stack includes a novel, alternate mode of action to help preserve trait durability and delay insect adaptation for long-term field health, and the convenience of an integrated E-Z Refuge® seed blend.

Pests controlled: European corn borer, southwestern corn borer, black cutworm, beet armyworm, southern cornstalk borer, lesser cornstalk borer, sugarcane borer, western corn rootworm, northern corn rootworm and Mexican corn rootworm.

Pests suppressed: Corn earworm, western bean cutworm, fall armyworm and common stalk borer.



The Viptera® trait stack offers the most comprehensive above-ground insect control with control of ear-feeding insects, multiple modes of action against key above-ground insects and the convenience of an integrated E-Z Refuge® seed blend. It is ideal in areas where corn rootworm management is not a primary concern. The Viptera® trait stack features the only trait technology available today that effectively controls western bean cutworm to help protect genetic yield potential.

Pests controlled: European corn borer, southwestern corn borer, corn earworm, western bean cutworm, black cutworm, dingy cutworm, fall armyworm, true armyworm, beet armyworm, common stalk borer, southern cornstalk borer, lesser cornstalk borer and sugarcane borer.



Seed products with the LibertyLink® (LL) trait are resistant to the herbicide glufosinate ammonium, an alternative to glyphosate in corn, and combine high-yielding genetics with the powerful, non-selective, postemergent weed control of Liberty® herbicide for optimum yield and excellent weed control. LibertyLink®, Liberty® and the Water Droplet logo are registered trademarks of BASF.



The DuracadeViptera™ trait stack is the industry's most comprehensive solution for proactively protecting yield potential and field health, featuring multiple modes of action to control 16 key insects—more than any competitive trait stack—including a unique mode of action that demonstrates strong performance against corn rootworm, and the convenience of an integrated E-Z Refuge® seed blend.

Pests Controlled: European corn borer, southwestern corn borer, corn earworm, western bean cutworm, black cutworm, dingy cutworm, fall armyworm, true armyworm, beet armyworm, common stalk borer, southern cornstalk borer, lesser cornstalk borer, sugarcane borer, western corn rootworm, northern corn rootworm, and Mexican corn rootworm.



The Agrisure® Above trait stack offers the convenience of an integrated E-Z Refuge® seed blend featuring multiple modes of action against corn borer, as well as suppression of ear-feeding insects. The Agrisure® Above trait stack is ideal in areas where corn rootworm management is not a primary concern.

Pests controlled: European corn borer, southwestern corn borer, black cutworm, southern cornstalk borer, lesser cornstalk borer and sugarcane borer.

Pests suppressed: Corn earworm, western bean cutworm, fall armyworm and common stalk borer.

Important: Always read and follow label and bag tag instructions; only those labeled as tolerant to glufosinate may be sprayed with glufosinate ammonium-based herbicides.

Agrisure®, Agrisure® Above, Duracade®, DuracadeViptera™Z3, Viptera®, and E-Z Refuge® are trademarks of a Syngenta Group Company.

More information about Duracade® is available at <http://www.biotradestatus.com>



Corn trait technology incorporated into these seeds is commercialized under license from Syngenta Seeds, LLC. Herculex® Technology incorporated into these seeds is commercialized under license from Corteva Agriscience LLC. HERCULEX® and the HERCULEX Shield are trademarks of Corteva Agriscience LLC.



YieldGard VT Pro® is a registered trademark used under license from the Bayer Group.

CORN TRAIT TABLE

ABOVE & BELOW GROUND

ABOVE GROUND

Pest	Control Ratings					Control Ratings					
	Duracade Viptera	Duracade	SmartStax PRO	SmartStax	QROME	Viptera	Trecepta	POLLER	VtDoublePRO	Agrisure Above	AcreMax
Corn Earworm 	●●●●● 1-2	●● 0-1	●●● 0-2	●●● 0-2	●● 0-1	●●●●● 1-2	●●●●● 1-3	●●●● 0-2	●● 0-2	●●●●● 0-1	●● 0-1
Black Cutworm 	●●●●● 2	●●●● 1	●●●● 1	●●●● 1	●●●● 1	●●●●● 2	●●●●● 1	●●●● 1	NA	●●●● 1	●●●● 1
Fall Armyworm 	●●●●● 1-2	● 1	●●●● 2-3	●●●● 2-3	● 0-1	●●●●● 1-2	●●●●● 3	●●●● 2-3	●●●● 2	● 0-1	● 0-1
Western Bean Cut Worm 	●●●●● 1	NA	NA	NA	NA	●●●●● 1	●●●●● 1	NA	NA	NA	NA
True Armyworm 	●●●●● 1	NA	NA	NA	NA	●●●●● 1	●●●●● 1	NA	NA	NA	NA
European Corn Borer 	●●●●● 1-2	●●●●● 2	●●●●● 2-3	●●●●● 2-3	●●●●● 1-2	●●●●● 1-2	●●●●● 2	●●●●● 2-3	●●●●● 2	●●●●● 1-2	●●●●● 1-2
Southwestern Corn Borer 	●●●●● 2	●●●●● 1	●●●●● 3	●●●●● 3	●●●●● 1	●●●●● 2	●●●●● 3	●●●●● 3	●●●●● 2	●●●●● 1	●●●●● 1
Western Northern, Southern CRM 	●●●● 0-2	●●●● 0-2	●●●●● 0-3	●●●● 0-2	●●●● 0-2	NA	NA	NA	NA	NA	NA
Refuge Corn Belt	5% In the bag	5% In the bag	5% In the bag	5% In the bag	5% In the bag	5% In the bag	5% In the bag	5% In the bag	5% In the bag	5% In the bag	5% In the bag
Herbicide Tolerance	Herbicide Tolerance	Glyphosate Glufosinate	Glyphosate Glufosinate	Glyphosate Glufosinate	Glyphosate Glufosinate	Glyphosate Glufosinate	Glyphosate	Glyphosate Glufosinate 2,4-D choline FOPs	Glyphosate	Glyphosate Glufosinate	Glyphosate Glufosinate

*1st Line = Insect Control score: information is based solely upon interpretation of publicly available information, including public presentations, regulatory submissions and observations made in commercial fields.

*2nd Line = # of Bt Proteins: the number represents the proteins that are still effective or have a reduced effectiveness for the pest listed.

Performance may vary, from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields.

Insect Control Scale:
NA = No Control, ● = Some, ●● = Good, ●●● = Very Good, ●●●● = Excellent

CORN PLANTING GUIDES

For Harvest Pop.	Planting Pop. at 90% Germ.	Within Row Kernel Spacing (Inches between each kernel)				
		Row Width				
		15"	20"	22"	28"	30"
20,000	22,200	18.8	14.1	12.8	10.1	9.4
22,000	24,400	17.2	12.9	11.7	9.2	8.6
24,000	26,700	16.6	11.7	10.6	8.4	7.8
26,000	28,900	14.4	10.8	9.8	7.7	7.2
28,000	31,100	13.4	10.1	9.1	7.2	6.7
30,000	33,000	12.6	9.5	8.6	6.7	6.3
32,000	35,500	11.8	8.9	8.1	6.3	5.9
34,000	37,800	11.0	8.3	7.5	5.9	5.5
36,000	40,000	10.5	7.8	5.2	4.4	4.1
38,000	42,200	10.0	7.5	5.0	4.1	3.9



CruiserMaxx® Corn 250 insecticide/fungicide seed treatment, a combination of separately registered products, offers broadspectrum protection against early-season insects and seedborne and soilborne diseases.

Important: Always read and follow label instructions. Some products may not be registered for sale or use in all states or counties. Please check with your local extension service to ensure registration status.

CruiserMaxx® Corn 250 is an on-seed application of Cruiser® 5FS insecticide delivered at the 0.25 mg a.i./seed rate and Maxim® Quattro fungicide. Cruiser®, CruiserMaxx® and Maxim® are registered trademarks of a Syngenta Group Company.

Planting Rate	Acres Per 80,000 Kernel Bag
28,000	2.86
30,000	2.67
32,000	2.50
34,000	2.35
36,000	2.22
38,000	2.11
40,000	2.00



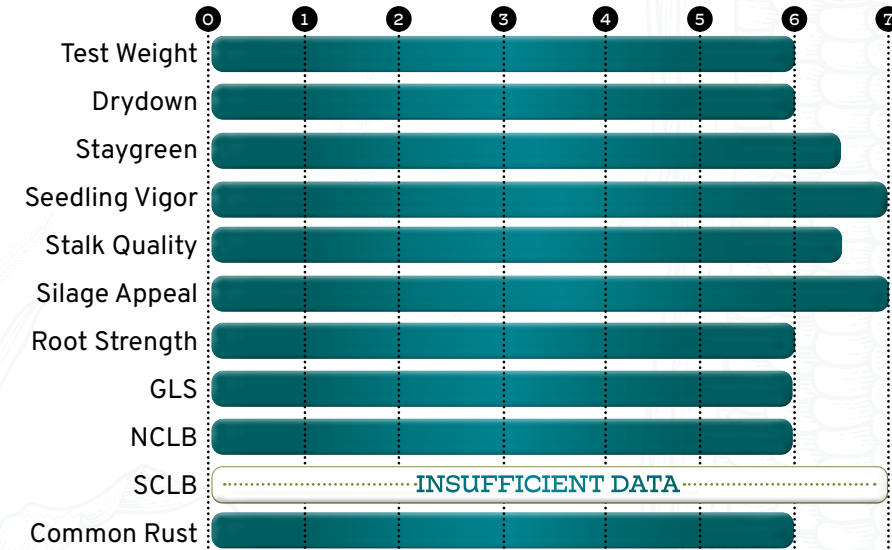
Width	Stand Count Formulas	Equals
30" Rows	Number of plants in 17.5 ft of row x 1000	Final Plants per Acre
20" Rows	Number of plants in 26.0 ft of row x 1000	Final Plants per Acre
15" Rows	Number of plants in 35.0 ft of row x 1000	Final Plants per Acre

SG-5653



Agronomic/Disease Ratings

RM: 96 days



Height: Med-Tall	Ear Height: Med	Pop. Range: 28-35k
Ear Type: Flex	Kernel Rows: 16-18	Cob Color: Red

Descriptions:

- ◆ Trait Options - GT / VIPTERA / CONV
- ◆ Terrific yielding, tall, dual-purpose grain or silage hybrid
- ◆ Extremely attractive upright leaf stature
- ◆ Long, flex-type ear with superior grain quality
- ◆ Fall plant health and staygreen are outstanding
- ◆ Moves south out of RM as an early option

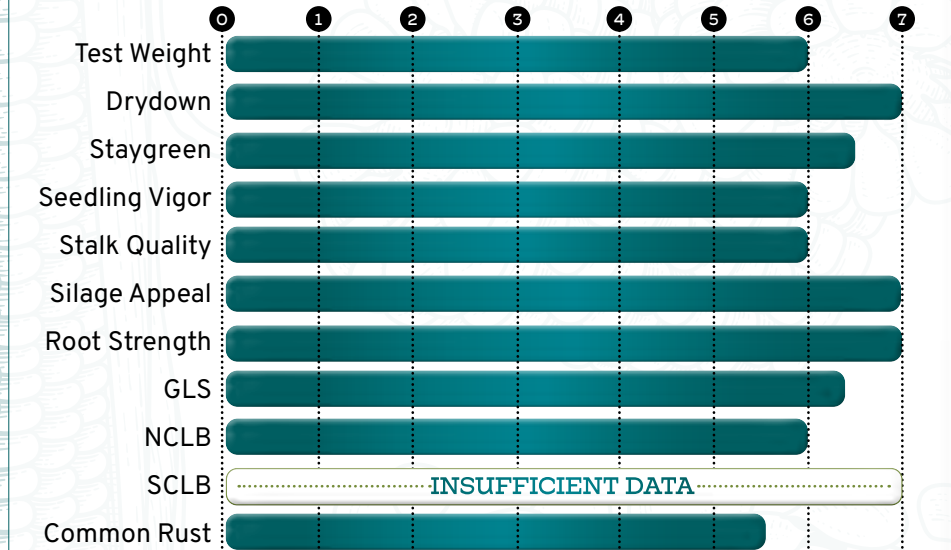
CORN HYBRIDS

SG-5885



Agronomic/Disease Ratings

RM: 98 days



Height: Tall	Ear Height: Med-High	Pop. Range: 32-36k
Ear Type: Flex	Kernel Rows: 16-18	Cob Color: Red

Descriptions:

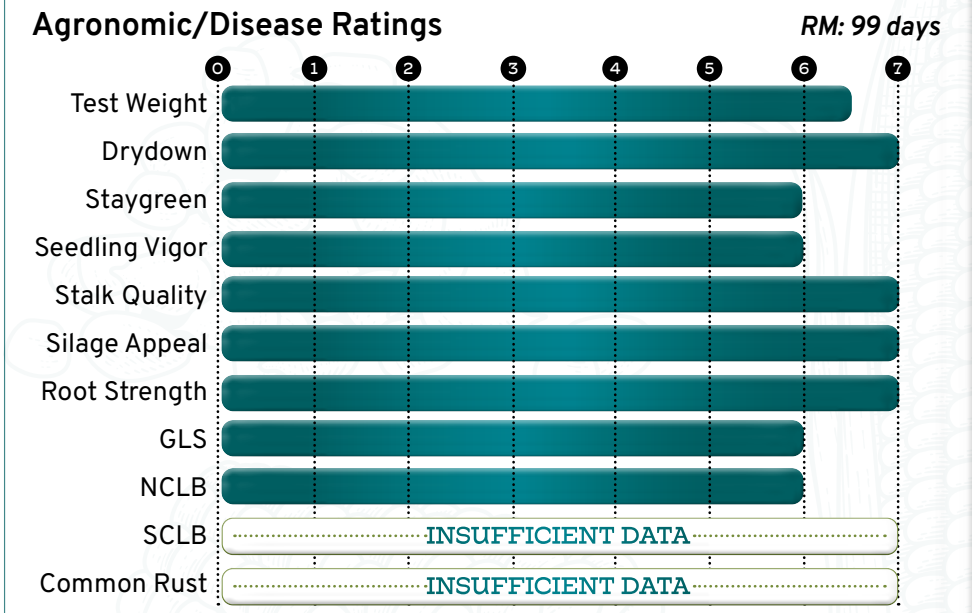
- ◆ Trait options - POWERCORE / CONV
- ◆ Great late-season stalks
- ◆ Very good disease package
- ◆ Excellent silage product
- ◆ Position in North/Northeast Ohio
- ◆ Exceptional yield performance



CORN HYBRIDS

SHUR GROW Duracade Viptera

SG-5940



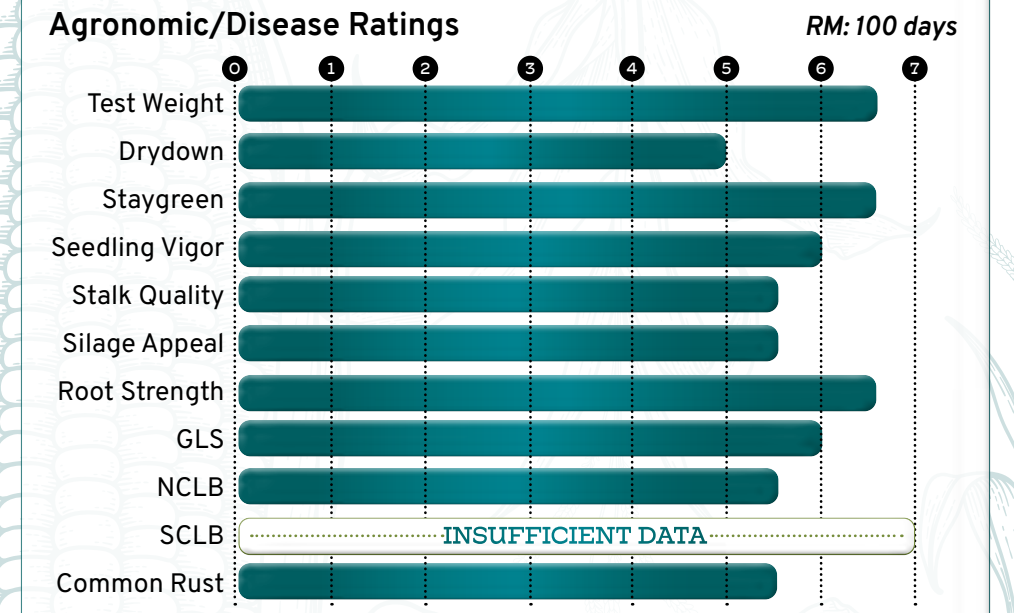
Height: Med-Tall	Ear Height: Med-High	Pop. Range: 31-35K
Ear Type: Semi-flex	Kernel Rows: 16-18	Cob Color: Red

- Descriptions:**
- ◆ Trait options - DURACADE VIPTERA
 - ◆ High yield potential product
 - ◆ Superior silage quality
 - ◆ Broad geographic adaptation
 - ◆ Great choice for average/variable soils



SHUR GROW

SG-6009



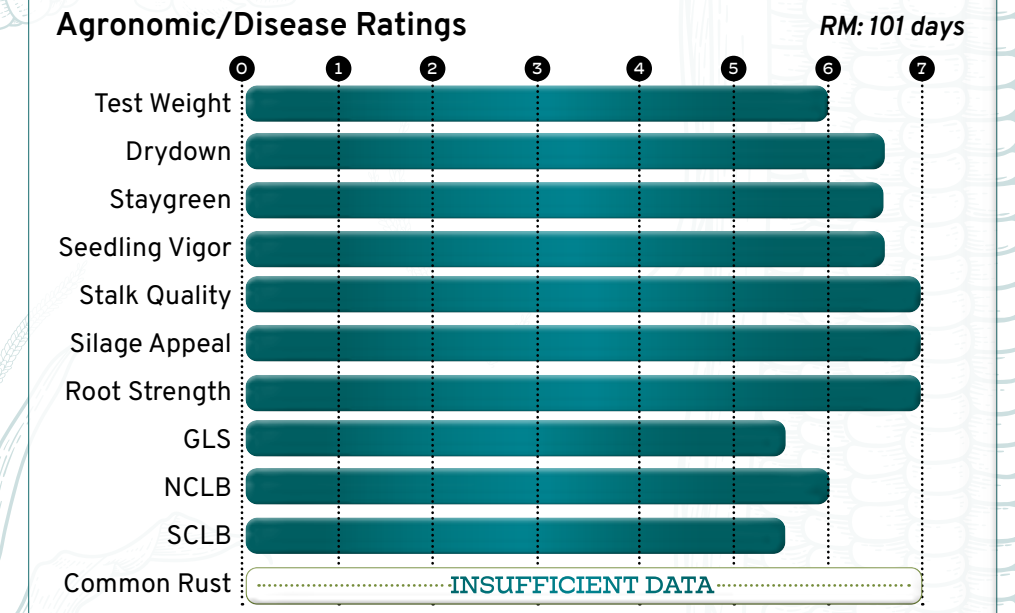
Height: Med-Tall	Ear Height: Med	Pop. Range: 30-34k
Ear Type: Flex	Kernel Rows: 16	Cob Color: Red

- Descriptions:**
- ◆ Trait options - CONV
 - ◆ Strong yield performance in RM
 - ◆ Long flex-type ear with very good grain quality
 - ◆ Attractive late-season appearance
 - ◆ Excellent test weight
 - ◆ Performs very well on highly productive soils



SHUR GROW Viptera

SG-6122



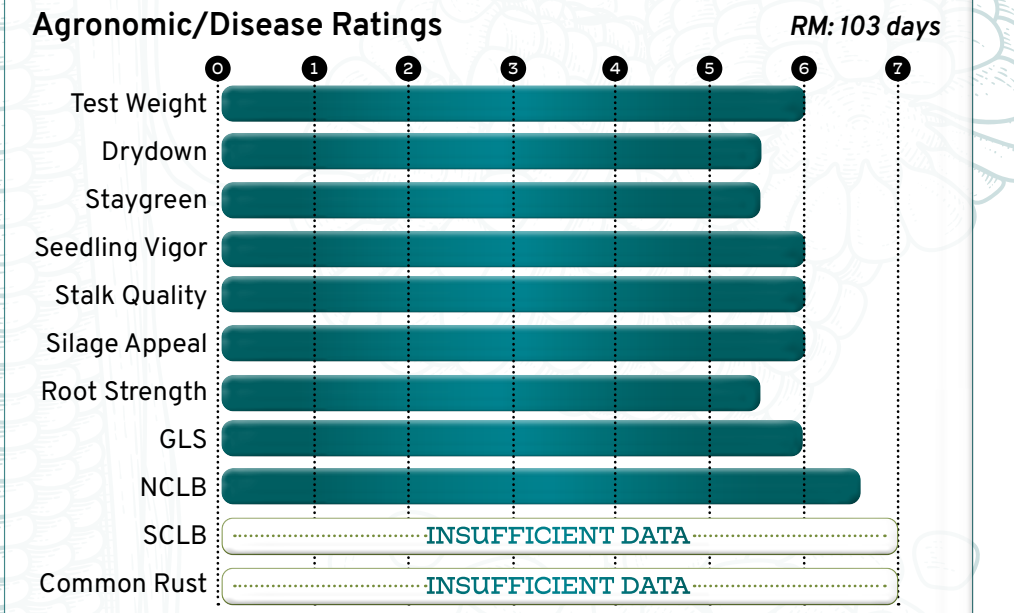
Height: Med-Tall	Ear Height: Med-High	Pop. Range: 31-36K
Ear Type: Flex	Kernel Rows: 16-18	Cob Color: Red

- Descriptions:**
- ◆ Trait options - VIPTERA
 - ◆ Outstanding agronomic package
 - ◆ Very strong stalks and roots
 - ◆ Exceptional top-end yield potential
 - ◆ Position on average-to-highly productive soils



SHUR GROW POWERCORE Enlist

SG-6310



Height: Med	Ear Height: Med	Pop. Range: 29-35K
Ear Type: Flex	Kernel Rows: 16-18	Cob Color: Red

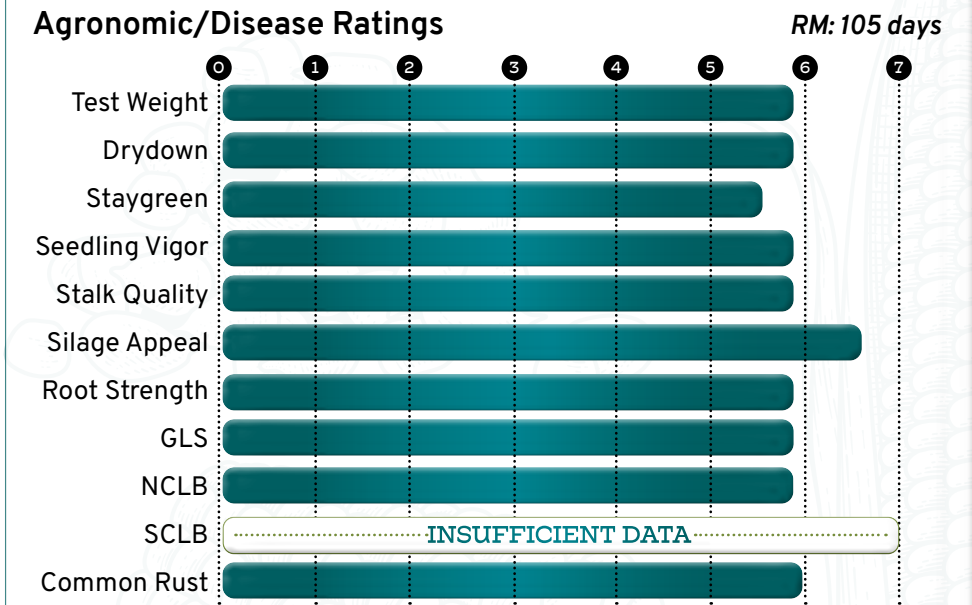
- Descriptions:**
- ◆ Trait options - POWERCORE / CONV
 - ◆ Moderate statured, high performing hybrid with stress tolerance
 - ◆ Consistent performance across high and low yielding environments
 - ◆ Long balance ear type with good tip fill
 - ◆ Strong disease tolerance to NCLB and Tar Spot



CORN HYBRIDS

SHUR GROW **POWERCORE**
Enlist
REFUGES ADVANCED

SG-6550



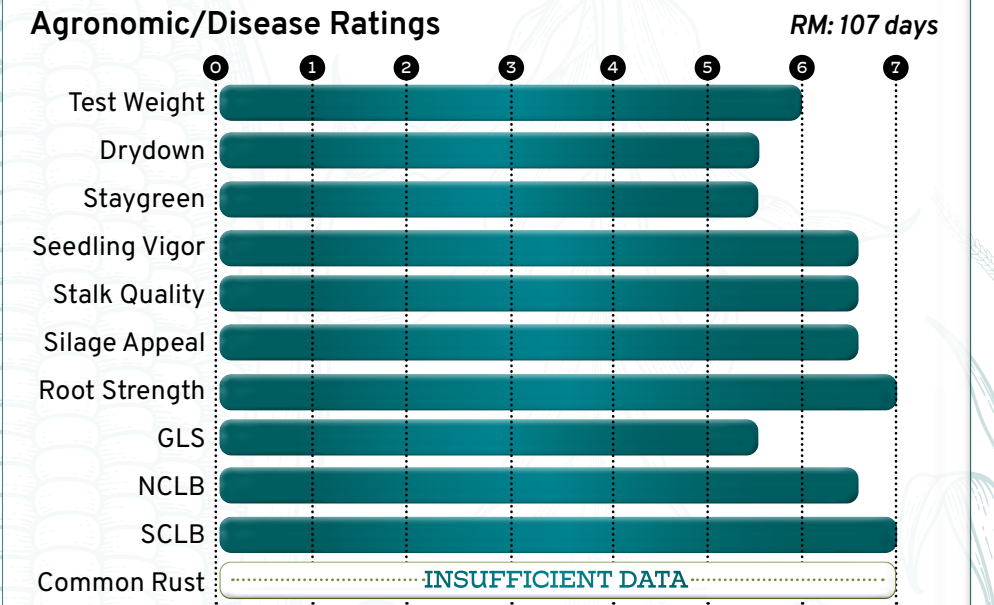
Height: Med-Tall	Ear Height: Med-High	Pop. Range: 31-36K
Ear Type: Semi-flex	Kernel Rows: 16-18	Cob Color: Pink

- Descriptions:**
- ◆ Trait options - POWERCORE / CONV
 - ◆ Key NEW product with high top-end yield
 - ◆ Excellent drydown and test weight
 - ◆ Strong disease package
 - ◆ Consistent performance across soil types



SHUR GROW **Viptera**

SG-6707



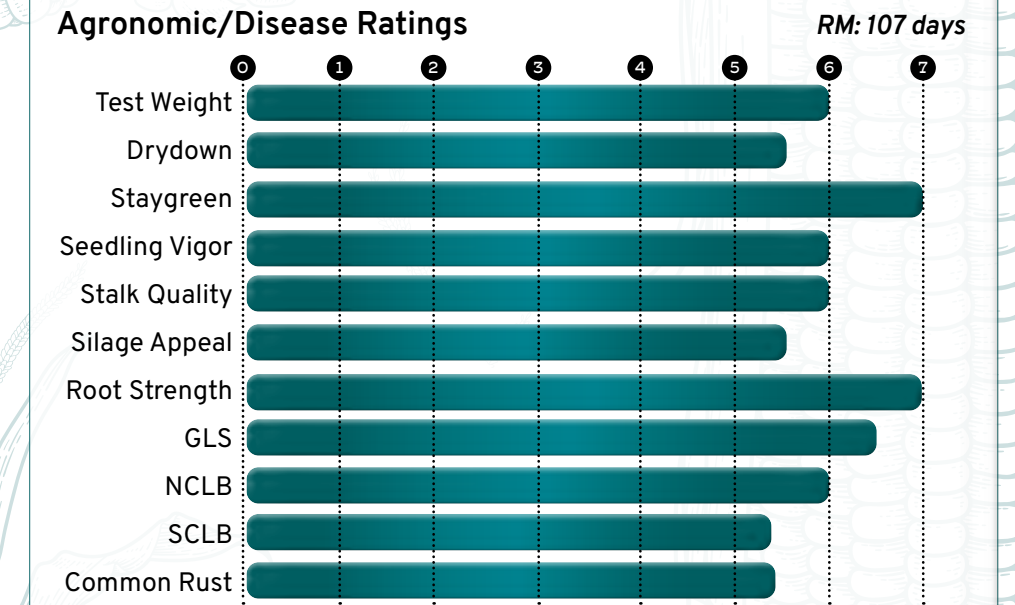
Height: Tall	Ear Height: High	Pop. Range: 29-34K
Ear Type: Flex	Kernel Rows: 14-16	Cob Color: Red

- Descriptions:**
- ◆ Trait options - VIPTERA
 - ◆ Robust plant with high yield potential
 - ◆ Very strong roots with good stalks
 - ◆ Outstanding dual-purpose potential
 - ◆ Strong emergence in all soil types



SHUR GROW

SG-6744

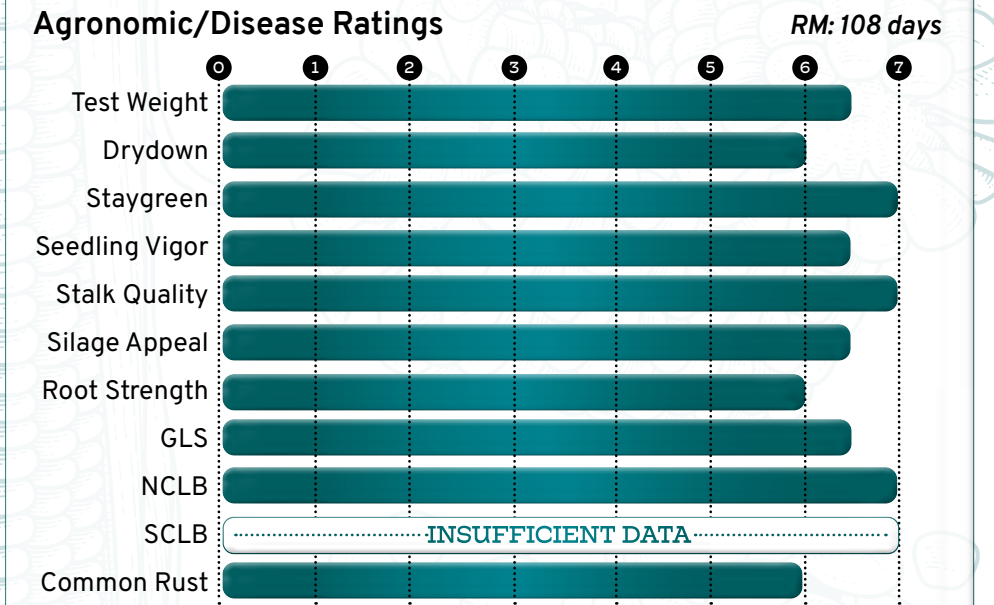


Height: Med	Ear Height: Med	Pop. Range: 30-34K
Ear Type: Semi-flex	Kernel Rows: 16-18	Cob Color: Red

- Descriptions:**
- ◆ Trait options - CONV
 - ◆ Widely adapted across soils and works at a wide range of populations
 - ◆ Attractive late-season eye appeal with staygreen and intactness
 - ◆ Balanced ear type with very good grain quality and test weight
 - ◆ Fits the entire Heritage geography
 - ◆ Powercore Enlist option

SHUR GROW **POWERCORE**
Enlist
REFUGES ADVANCED

SG-6884



Height: Med-Tall	Ear Height: Med	Pop. Range: 32-37K
Ear Type: Semi-flex	Kernel Rows: 16-20	Cob Color: Pink

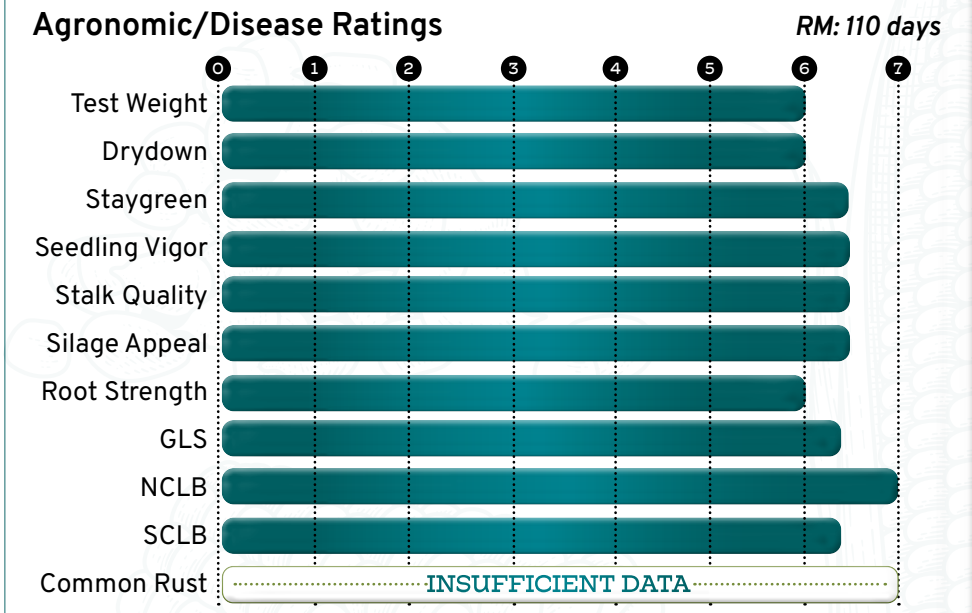
- Descriptions:**
- ◆ Trait options - POWERCORE / CONV
 - ◆ Above-average test weight
 - ◆ Versatile product with excellent plant health and stalks
 - ◆ Can push population in highly productive ground
 - ◆ Lead product that covers many acres
 - ◆ Great late-season stalk strength
 - ◆ Outstanding NCLB and Tar Spot tolerance



CORN HYBRIDS

SHUR GROW Agrisure Above

SG-7054

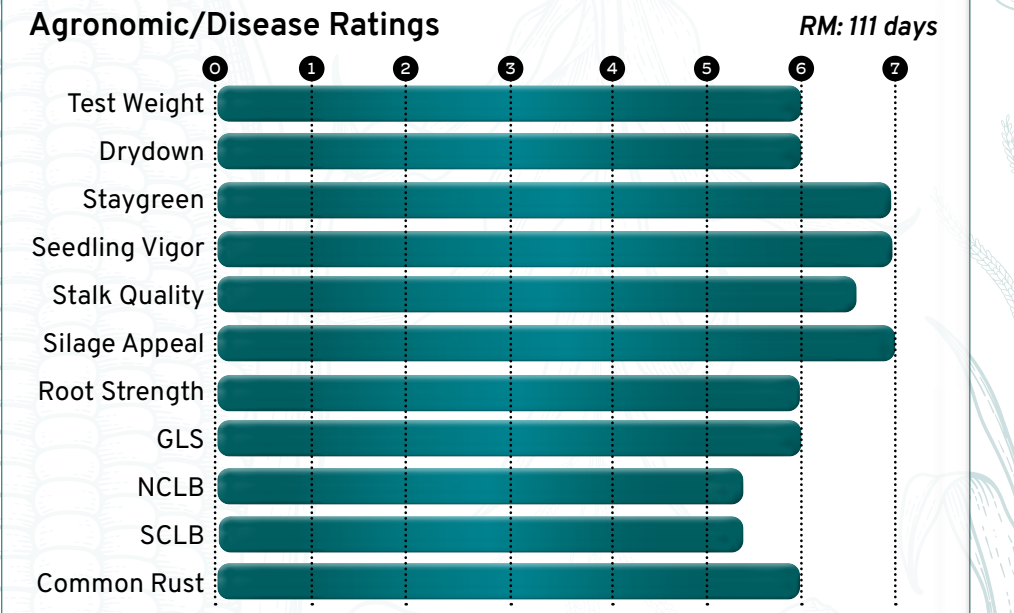


Height: Med-Tall	Ear Height: Med-High	Pop. Range: 32-36K
Ear Type: Flex	Kernel Rows: 14-16	Cob Color: Red

- Descriptions:**
- ◆ Trait options - AGRISURE ABOVE
 - ◆ Versatile 110 day hybrid for Ohio
 - ◆ Superior staygreen and NCLB protection
 - ◆ Excellent stalks and roots
 - ◆ Attractive dual-purpose silage/grain hybrid

SHUR GROW POWERCORE Enlist REFUGE ADVANCED

SG-7124

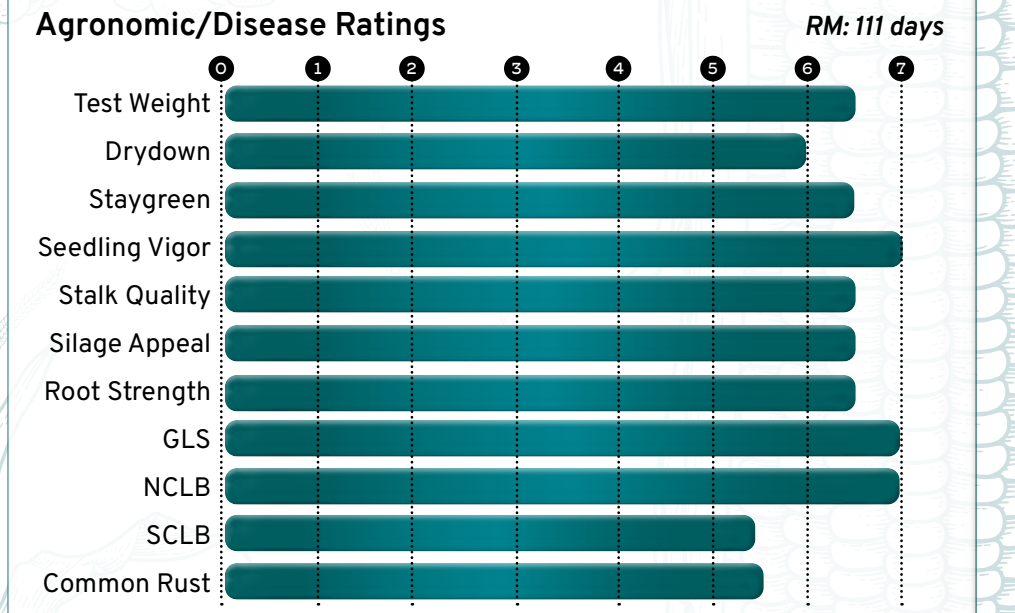


Height: Med	Ear Height: Med	Pop. Range: 32-36K
Ear Type: Flex	Kernel Rows: 18-20	Cob Color: Pink

- Descriptions:**
- ◆ Trait options - POWERCORE/ CONV
 - ◆ Industry leading germplasm
 - ◆ Very showy appearance all season
 - ◆ Strong stalks & late-season staygreen
 - ◆ Very girthy ears with good flex 18-20 kernel rows
 - ◆ Excellent top-end yield in medium-to-high yield environments

SHUR GROW Viptera

SG-7153

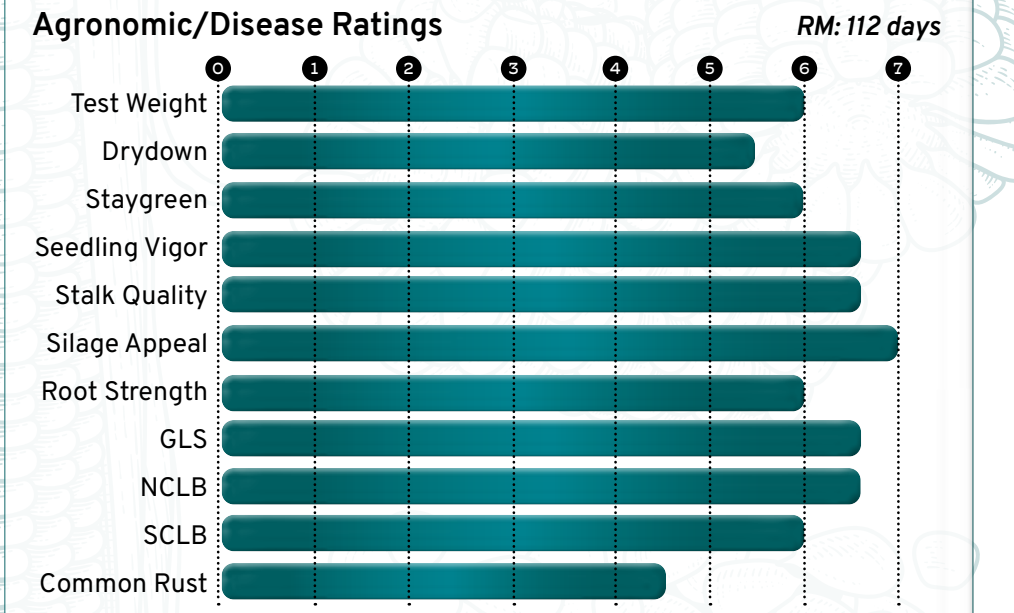


Height: Med-Tall	Ear Height: Med-Low	Pop. Range: 32-36K
Ear Type: Semi-flex	Kernel Rows: 16	Cob Color: Pink

- Descriptions:**
- ◆ Trait options - VIPTERA / CONV
 - ◆ Attractive plant type with high yield potential
 - ◆ Widely adapted with good tolerance to Tar Spot
 - ◆ Superior test weight and grain quality
 - ◆ Very attractive plant appearance and late-season intactness
 - ◆ Highest rated hybrid in lineup for GLS and NCLB

SHUR GROW VT DoublePRO RIB COMPLETE DroughtGard HYBRIDS

SG-7233



Height: Med-Tall	Ear Height: Med-High	Pop. Range: 33-38K
Ear Type: Flex	Kernel Rows: 18-20	Cob Color: Red

- Descriptions:**
- ◆ Trait options - VT2PRIB / DG
 - ◆ Optimal performance in high management systems
 - ◆ Produces girthy ears with tremendous kernel flex, size, and depth
 - ◆ Very attractive plant with nice fall appearance and intactness
 - ◆ Very strong overall disease package
 - ◆ Strong dual-purpose silage and grain hybrid

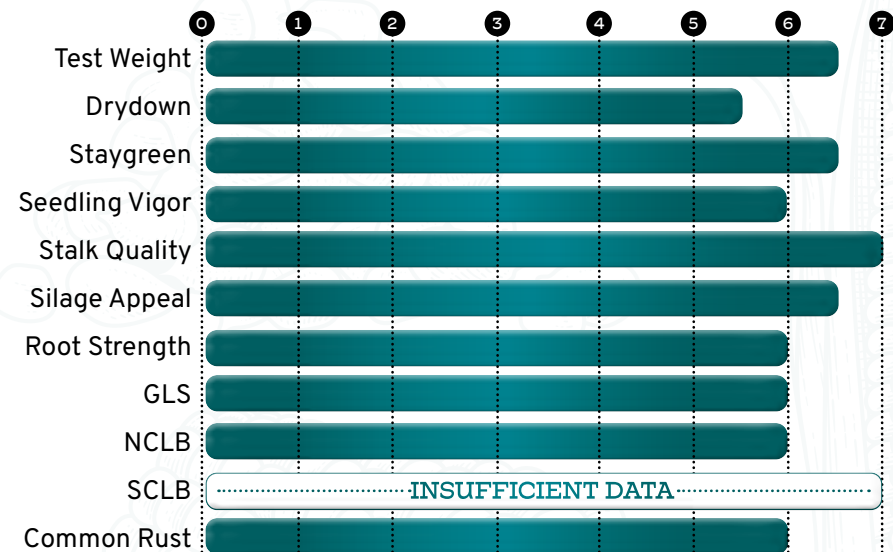
CORN HYBRIDS

SG-7244



Agronomic/Disease Ratings

RM: 112 days



Height: Med-Tall | Ear Height: Med | Pop. Range: 32-36K
 Ear Type: Semi-Flex | Kernel Rows: 16-18 | Cob Color: Pink

Descriptions:

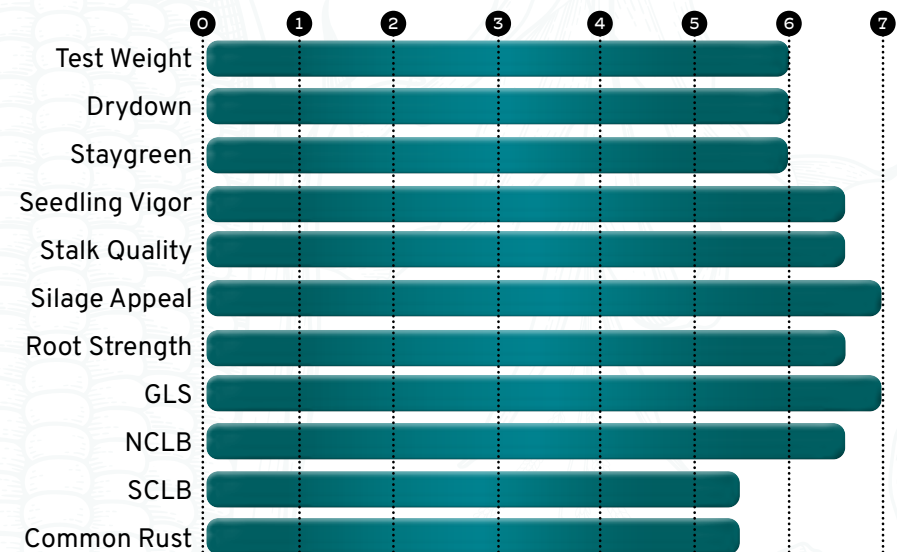
- ◆ Trait options - POWERCORE / CONV
- ◆ Outstanding top-end yield potential
- ◆ Strong stalks late into the fall
- ◆ Above-average NCLB, GLS, and Tar Spot tolerance
- ◆ Excellent grain quality with high test weight
- ◆ Keep in maturity zone I70 corridor

SG-7275



Agronomic/Disease Ratings

RM: 112 days



Height: Tall | Ear Height: Med | Pop. Range: 32-38K
 Ear Type: Semi-Flex | Kernel Rows: 16-18 | Cob Color: Red

Descriptions:

- ◆ Trait options - VIPTERA / DURACADE VIPTERA
- ◆ Consistent high yield with outstanding stalks and roots
- ◆ Excellent late-season intactness and staygreen
- ◆ Outstanding dual-purpose product
- ◆ Moves across yield environments very well

TIME FOR AN UPGRADE



Two advanced trait packages. Multiple modes of action.
 An integrated solution for weed and above-ground pest control.

Product overview

- Exceptional broad-spectrum protection against above-ground pests
- Stacked with the Enlist® corn trait for multiple modes of action against tough weeds

By the numbers

- Trait is licensed to more than 60 seed companies in the U.S. and Canada, giving farmers many genetic options for accessing this important new technology

Farmer benefits

- Long-lasting insect control against black cutworm, fall armyworm, European and southwestern corn borers, and corn earworm
- Herbicide flexibility with the Enlist™ weed control system, which offers tolerance to 2,4-D choline in Enlist® herbicides
- Enlist weed control system provides a whole-farm solution across corn, soybean and cotton acres
- Available in Corteva Agriscience™ genetics with best-in-class yield potential

How does PowerCore® trait technology stack up?

	Primary Pest Controlled	PowerCore® Enlist® corn	VT Double PRO® corn
	Black cutworm	✓	NONE
	Corn earworm	✓✓	✓✓
3 modes of action	European corn borer	✓✓✓	✓✓
	Fall armyworm	✓✓✓	✓✓
	Southwestern corn borer	✓✓✓	✓✓

Checkmarks represent number of modes of action for control over specified pest.

* PowerCore Enlist Corn requires a 5% refuge in the Corn Belt and a 20% refuge in cotton-growing areas.



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Fungicide Efficacy for Control of Soybean Seedling Diseases

The members North Central Regional Committee on Soybean Diseases (NCERA-137) have developed the following ratings for how well fungicide seed treatments control seedling diseases of soybeans in the United States. Efficacy ratings for each fungicide active ingredient listed in the table were determined by field-testing the materials over multiple years and locations by the members of this group, and include ratings summarized from national fungicide trials published in Plant Disease Management Reports (and formerly Fungicide and Nematicide Tests) by the American Phytopathological Society at <http://www.apsnet.org>. Each rating is based on the fungicide's level of disease control, and does not necessarily reflect efficacy of fungicide active ingredient combinations and/or yield increases obtained from applying the active ingredient.

The list includes the most widely marketed products available. It is not intended to be a list of all labeled active ingredients and products. Additional active ingredients may be available, but have not been evaluated in a manner allowing a rating. Products listed are the most common products available as of the release date of the table; all available products may not be listed. Additional active ingredients may be included in some products for insect and nematode control, however; only active ingredients for pathogen control are listed and rated.

Many active ingredients and their products have specific use restrictions. Read and follow all use restrictions before applying any fungicide to seed, or before handling any fungicide-treated seed. This information is provided only as a guide. It is the applicator's and users legal responsibility to read and follow all current label directions. Reference in this publication to any specific commercial product, process, or service, or the use of any trade, firm, or corporation name is for general informational purposes only and does not constitute an endorsement, recommendation, or certification of any kind by members of the group, or by the North Central Soybean Research Program. Individuals using such products assume responsibility for their use in accordance with current directions of the manufacturer. Efficacy categories: E = Excellent; VG = Very Good; G = Good; F = Fair; P = Poor; NR = Not Recommended; NS = Not Specified on product label; U = Unknown efficacy or insufficient data to rank product. Ratings of NR may mean that the fungal group listed is not a target of the specific fungicide active ingredient.

Please note: Efficacy ratings may be dependent on the rate of the fungicide product on seed. A number of different species of Pythium and Fusarium impact seed and seedling health in soybean. Therefore, wide ranges in efficacy may be observed in fungicide active ingredients listed in the table. This is why several fungicide active ingredients are combined in seed treatments to provide protection to a broader spectrum of pathogens. Contact your local Extension plant pathologist for recommended fungicide product rate information for your area.



SHUR COAT

Shur Coat F&I Seed Treatments

T-Methyl 0.20 fl oz/cwt

- High rates of Rhizoctonia, Seed Decay Fungi, Phytophthora, Pythium protection

Ipconazole 0.085 fl oz/cwt

- High rates of Rhizoctonia, Fusarium, Seed Decay Fungi protection

Thiabendazole 0.24 fl oz/cwt

- Fusarium, Rhizoctonia, Stem Blight, Molds, Stem Rot, Seed Decay

Azoxystrobin 0.16 fl oz/cwt

- Protection against Rhizoctonia and Fusarium species

Mefanoxam 0.64 fl oz/cwt

- Highest rates in class Phytophthora and Pythium protection

Thiamethoxam (active ingredient in Cruiser) 1.28 fl oz/cwt

- Protection against early season bean leaf beetle, seed corn maggot, wireworms, and white grubs
- Available as an add-on to any seed treatment mix

Fungicide Efficacy for Control of Soybean Seedling Diseases (05/2023)

Efficacy Categories:

P=Poor; F=Fair; G=Good; VG=Very Good; E=Excellent; NL=Not Labeled for use against the disease; NR=Not Recommended; U=Unknown efficacy or insufficient data to rank product



Evaluating Seed Treatments

Fungicide active ingredient	Pythium spp. ¹	Phytophthora	Rhizoctonia spp.	Fusarium spp. ^{1,2}	Sudden death syndrome (SDS) <i>Fusarium virguliforme</i>	Diaporthe spp.
Azoxystrobin	P-G	NS	VG	F-G	NR	P
Carboxin	U	U	G	U	NR	U
Ethaboxam	E	E	NR	NR	NR	NR
Fludioxonil	NR	NR	G	F-VG	NR	G
Fluopyram	NR	NR	NR	NR	VG	NR
Fluxapyroxad	U	U	E	G	NR	G
Ipconazole	P	NR	F-G	F-E	NR	G
Mefenoxam	E ²	E	NR	NR	NR	NR
Metalaxyl	E ²	E	NR	NR	NR	NR
Oxathiapiprolin	P-G	E	NR	NR	NR	NR
PCNB	NR	NR	G	U	NR	G
Penflufen	NR	NR	G	G	NR	G
Prothioconazole	NR	NR	G	G	NR	G
Pydiflumetofen	NS	NS	NS	NS	VG	NS
Pyraclostrobin	P-G	NR	F-G	F	NR	G
Sedaxane	NR	NR	E	NS	NR	G
Thiabendazole	NR	NR	NS	NS	P	G
Trifloxystrobin	P	P	F-E	F-G	NR	P-F

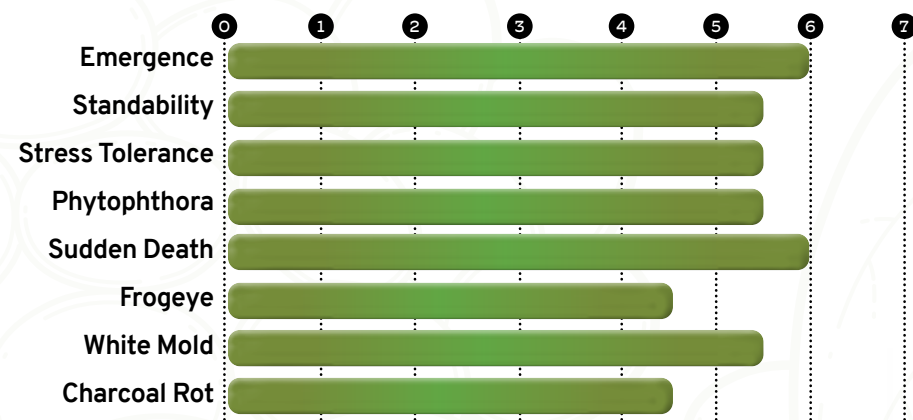
SOYBEAN VARIETIES

SG-2554E3



Agronomic/Disease Ratings

Group: 2.5 days



Height: Medium+
Stem Canker: R
PRR Gene: Rps 1c
Hilum Color: Imperfect Black
Canopy: Intermediate

Flower: Purple
SCN: PI 88.788
Pubescence: Gray
BSR: R
Pod Color: Brown

Descriptions:

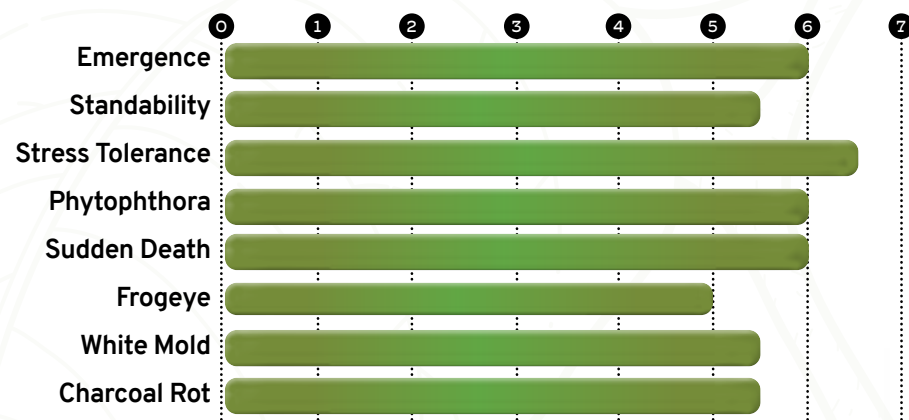
- ◆ Early maturing, high yielding genetics
- ◆ Built for broad acres, especially across Ohio
- ◆ SCN + BSR + Rps 1c
- ◆ Good SDS tolerance over many reps in '21, '22, & '23
- ◆ Medium+ height with above-average standability

CT-2625E3



Agronomic/Disease Ratings

Group: 2.6 days



Height: Medium-Short
Stem Canker: R
PRR Gene: Rps 1c
Hilum Color: Buff
Canopy: Intermediate-Bush

Flower: White
SCN: PI 88.788
Pubescence: Gray
BSR: R
Pod Color: Tan

Descriptions:

- ◆ Excellent performance in lower yield environments
- ◆ Very strong performance under drought and temperature stress
- ◆ Excellent standability, and SDS and PRR field tolerance

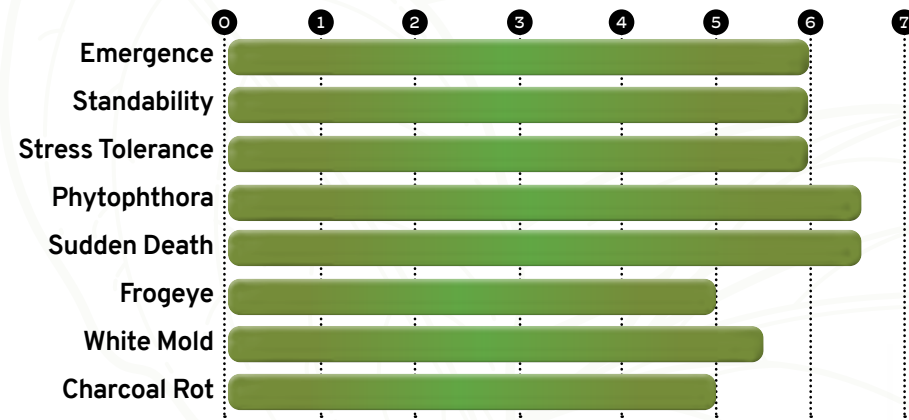


SG-2954E3S



Agronomic/Disease Ratings

Group: 2.9 days



Height: Medium-Tall
Stem Canker: R
PRR Gene: NG
Hilum Color: Imperfect Black
Canopy: Intermediate-Bush

Flower: Purple
SCN: PI 88.788
Pubescence: Gray
BSR: NG
Pod Color: Brown

Descriptions:

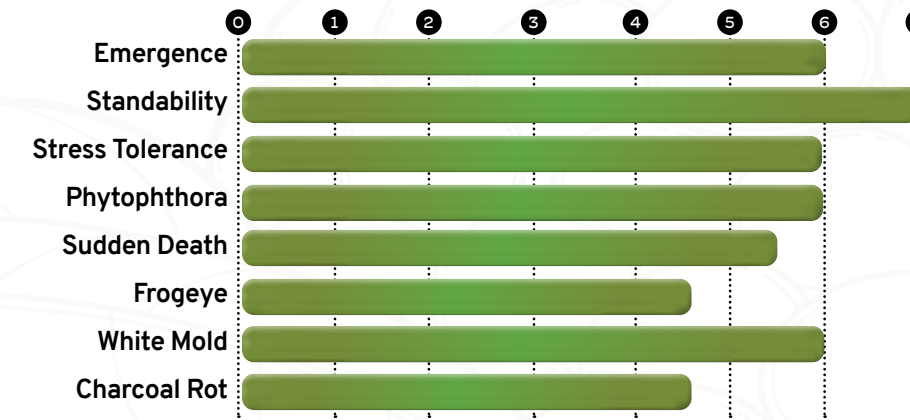
- ◆ Yielded right through heavy SDS locations
- ◆ This will be a big ONE for O-H-I-O!
- ◆ PRR field tolerance is excellent
- ◆ Medium-Tall with above average lodging
- ◆ This variety sets the bar high for late Group II

SG-3053E3S



Agronomic/Disease Ratings

Group: 3.0 days



Height: Medium-Tall
Stem Canker: R
PRR Gene: Rps 1c
Hilum Color: Imperfect Black
Canopy: Thin-Intermediate

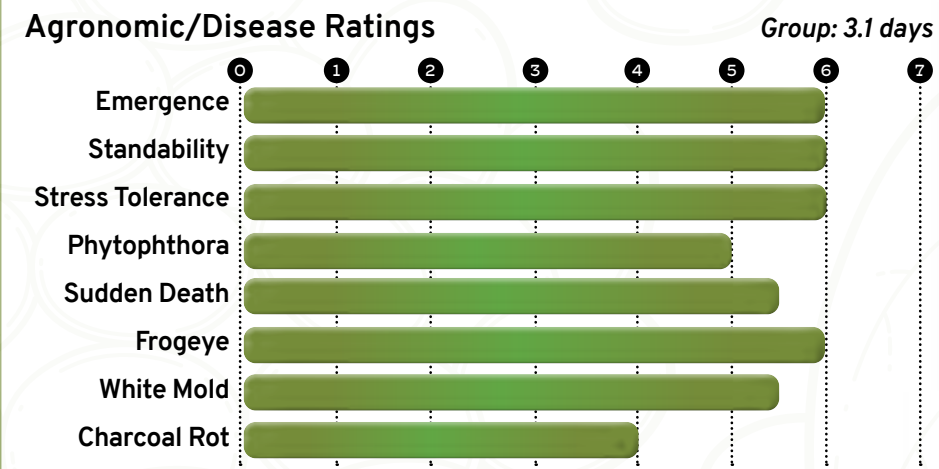
Flower: Purple
SCN: PI 88.788
Pubescence: Gray
BSR: NG
Pod Color: Brown

Descriptions:

- ◆ Medium-Tall with an upright plant style that yields
- ◆ Combination of yield, standability, and excellent defensive package
- ◆ Flawless lodging ratings across plot
- ◆ Brings Rps 1c gene and excellent field tolerance to PRR
- ◆ Stand out performance in all yield trials in '21, '22, & '23

SOYBEAN VARIETIES

CT-3055E3S

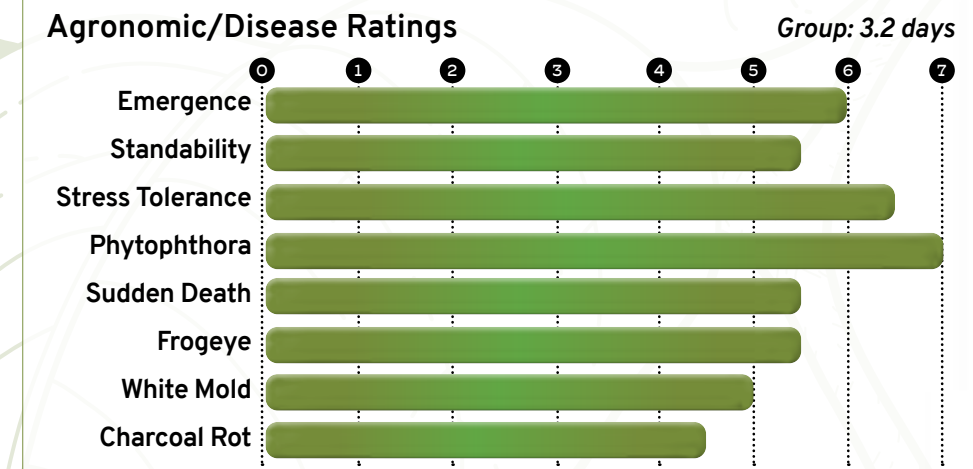


Height: Medium	Flower: White
Stem Canker: R	SCN: PI 88.788
PRR Gene: Rps 1c	Pubescence: Gray
Hilum Color: Buff	BSR: R
Canopy: Intermediate	Pod Color: Tan

- Descriptions:**
- ◆ Broadly adapted across soils; great choice for high pH acres
 - ◆ Stable performance at all yield environments
 - ◆ Moves north and south of zone with consistency



SG-3254E3

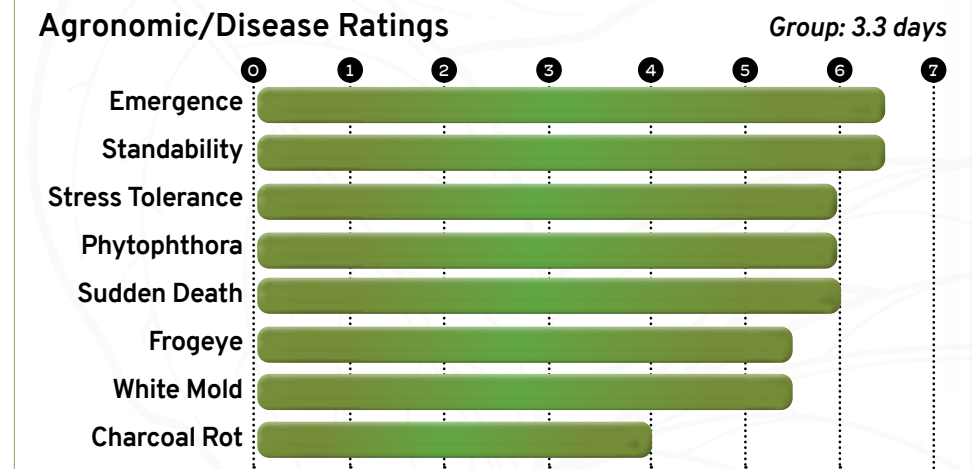


Height: Medium+	Flower: Purple
Stem Canker: R	SCN: Peking
PRR Gene: NG	Pubescence: Gray
Hilum Color: Imperfect Black	BSR: R
Canopy: Intermediate-Bush	Pod Color: Tan

- Descriptions:**
- ◆ NEW early Group III that performed great in '23 performance trials
 - ◆ That's right... this is a Peking for SCN!
 - ◆ Complete defensive package against PRR, BSR, and SDS
 - ◆ Excellent lateral branching and very good lodging



CT-3385E3S

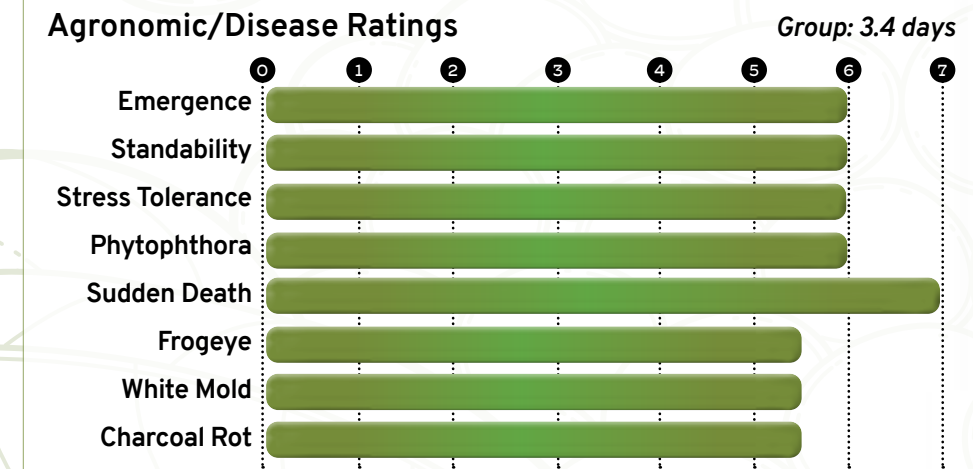


Height: Medium	Flower: Purple
Stem Canker: R	SCN: PI 88.788
PRR Gene: Rps 1c	Pubescence: Gray
Hilum Color: Imperfect Black	BSR: R
Canopy: Intermediate-Bush	Pod Color: Tan

- Descriptions:**
- ◆ Broadly adapted with great performance on highly productive acres
 - ◆ Excellent choice for all soil types, including fine textured and poorly drained soils
 - ◆ Outstanding emergence and standability
 - ◆ Great field tolerance to SDS



SG-3454E3S

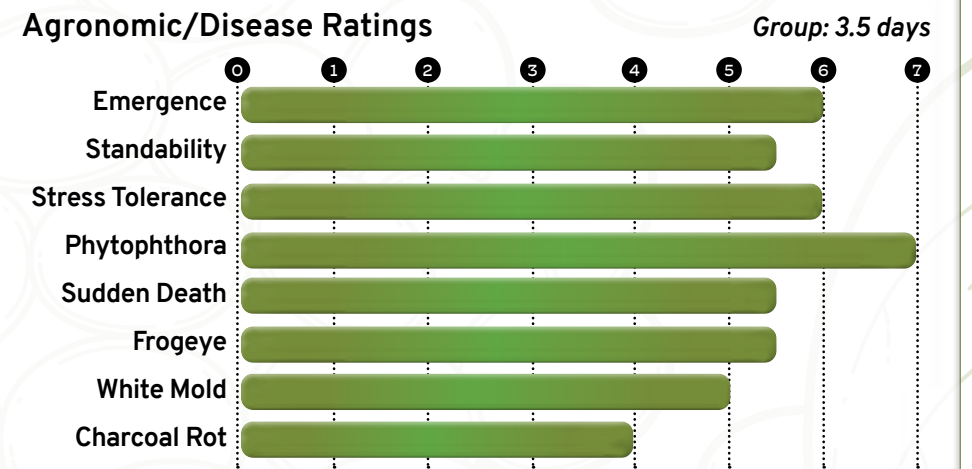


Height: Medium+	Flower: Purple
Stem Canker: R	SCN: PI 88.788
PRR Gene: NG	Pubescence: Gray
Hilum Color: Buff	BSR: R
Canopy: Intermediate-Bush	Pod Color: Brown

- Descriptions:**
- ◆ Strong field tolerance for PRR
 - ◆ Intermediate-to-wide profile with very good lodging scores
 - ◆ Industry leading SDS tolerance
 - ◆ Performed very well in '23 performance trials

SOYBEAN VARIETIES

CT-3485E3S  



Height: Medium	Flower: White
Stem Canker: R	SCN: PI 88.788
PRR Gene: Rps 1c, Rps 3a	Pubescence: Gray
Hilum Color: Buff	BSR: R
Canopy: Intermediate-Bush	Pod Color: Brown

- Descriptions:**
- ◆ Stacked with Rps 1c/3a gene for PRR
 - ◆ Unique, fresh genetics
 - ◆ Performs very well on highly productive soils
 - ◆ Versatile product that moves north of zone well



SG-3784E3  



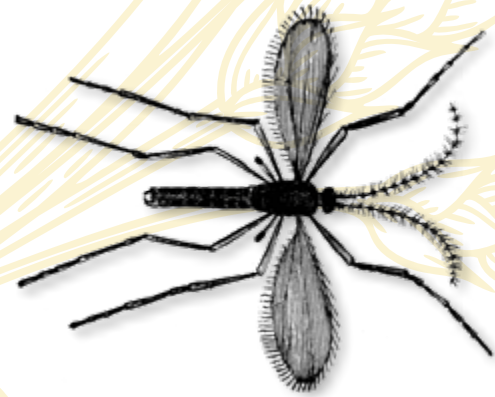
Height: Medium-Tall	Flower: White
Stem Canker: R	SCN: PI 88.788
PRR Gene: Rps 1k	Pubescence: Light Tawny
Hilum Color: Black	BSR: NG
Canopy: Intermediate	Pod Color: Brown

- Descriptions:**
- ◆ Top of the charts in '23 performance trials
 - ◆ Complete defensive package with big yield
 - ◆ Rps 1k and excellent field tolerance for PRR
 - ◆ Topped the heavy SDS data sets
 - ◆ Medium-Tall Light Tawny/Brown with great lodging scores



WHEAT VARIETIES & PLANTING GUIDES

Shur Grow offers bulk, mini-bulk and 50lb packaged units treated with Shur Coat Seed Treatment. Our Shur Coat brand name allows us to utilize the best fungicide products available in the market for optimum disease control during the critical stand establishment period. Other value-added wheat treatments are also available to be applied to bulk or mini-bulk product as needed. Insect protection products and plant growth-promoting products are available upon request. Contact your local Heritage Cooperative representative for details on the latest yield-protecting and yield-enhancing products! Many Shur Grow Wheat varieties are currently held in bulk, cleaned, conditioned, untreated supply - ready for on demand treatment application to meet your needs.



Hessian Fly-Free Date

By Date and County

Wheat sown on or after the date indicated for each county will escape most egg deposition by the fall brood of Hessian Fly. Egg laying is completed within the 2-to 3-day female lifespan. Therefore, it is important to time autumn wheat sowing to escape most egg deposition on the plants.

WHEAT PLANTING GUIDE

Seeding Rate Chart Pounds of Seed Needed Per Acre

Millions of Seeds/Ac	1.2	1.4	1.6	1.8	2.0
10,000	120	140	160	180	200
11,000	109	127	145	164	189
12,000	100	116	133	150	167
13,000	92	108	123	138	154
14,000	85	100	114	129	143
15,000	80	93	107	120	133
16,000	75	88	100	113	125
17,000	71	82	94	106	118
18,000	66	77	89	100	111

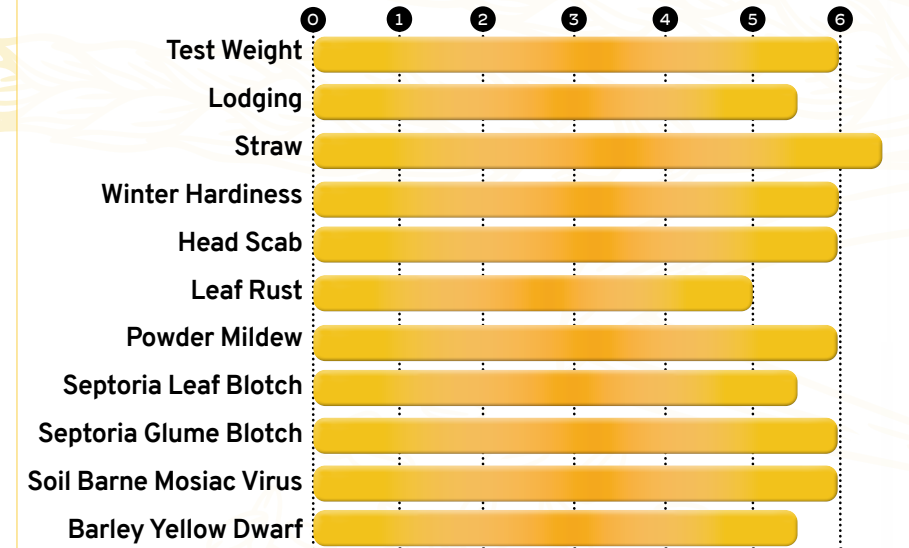
Average Seeding Rate:
1.6 million seeds per acre. Adjust accordingly for variable soil conditions.

- For Best Results:**
- Plant 1.4 to 1.6 million seeds per acre during the two weeks following the fly-free date.
 - Plant 1.6 to 2.0 million seeds per acre the third and fourth weeks following the fly-free date.

SG-1493S



Agronomic/Disease Ratings



Maturity: Med-Early | Plant Height: Med-Tall | Head Type: Awned

FHB Gene | FHB1

Description:

- High yielding workhorse variety in tougher soils
- Slightly earlier maturity with high TW and lodging
- Perfect candidate for double cropping
- Great winter hardiness and straw variety
- When it comes to disease protection, this one has you covered

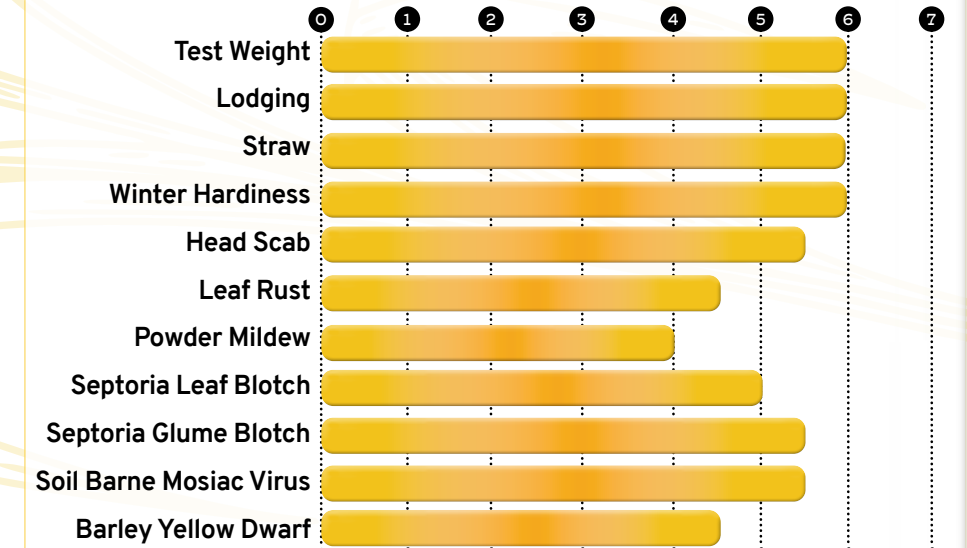


WHEAT VARIETIES



SG-1546S

Agronomic/Disease Ratings



Maturity: Med | Plant Height: Med-Tall | Head Type: Awned

FHB Gene | FHB1

Description:

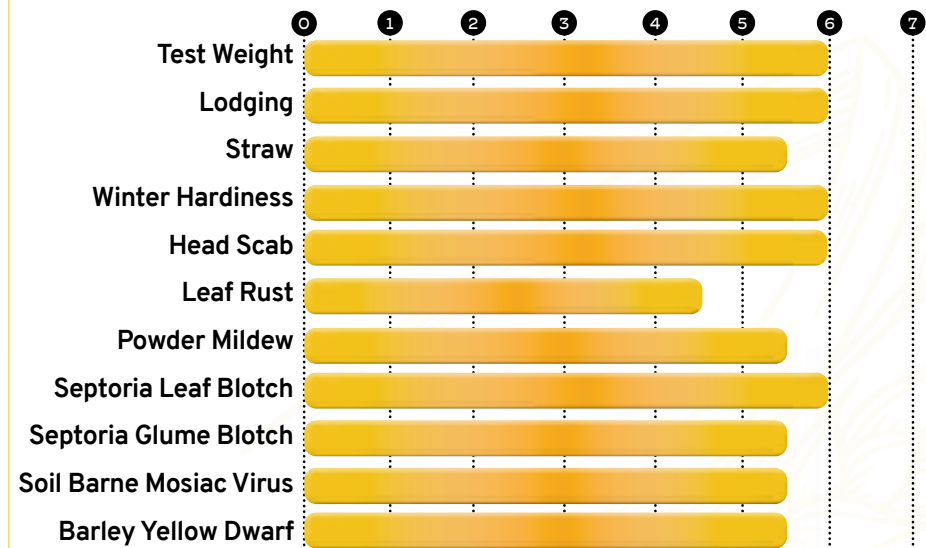
- Excellent test weight and winter hardiness
- Awned, medium-tall height with great stand
- Manage leaf rust for best results
- High management, high reward variety
- High volume product that works everywhere for Shur Grow

WHEAT VARIETIES

SG-1547S



Agronomic/Disease Ratings



Maturity: Med-Early Plant Height: Med Head Type: Smooth

FHB Gene FHB1

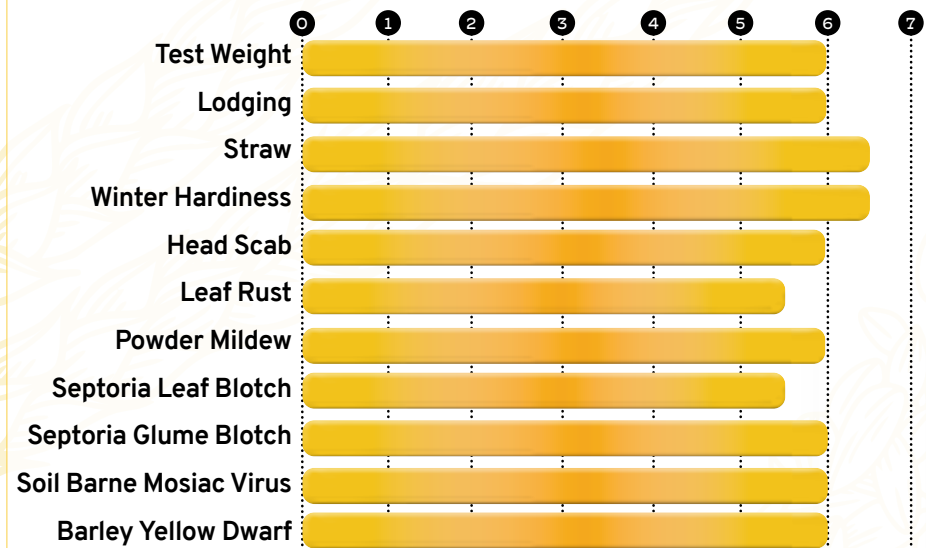
Description:

- ◆ Excellent standability and test weight
- ◆ Smooth variety with excellent tillering and winter hardiness
- ◆ Stripe rust resistance with good straw height
- ◆ High yielding wheat with great head scab resistance
- ◆ Has been a staple product for Shur Grow

SG-1582S



Agronomic/Disease Ratings



Maturity: Med-Late Plant Height: Med Head Type: Awned

FHB Gene FHB1

Description:

- ◆ Very nice bearded variety that fits a lot of soil types
- ◆ Solid disease and agronomic package
- ◆ Latest maturity product in lineup that performs
- ◆ Push nitrogen to maximize production
- ◆ Solid performance across the state

WHEAT TREATMENT OFFERING

Package Type	Treatment	Features, Advantages, and Benefits
Paper Bags or Totes/Bulk	Warden Cereals II	Contains three fungicides (mefenoxam, sedaxane, difenconazole) with different modes of action for broad-spectrum control of diseases such as, but not limited to, damping-off, seedling blights, root rots, rhizoctonia, dwarf and other bunts/smuts.
Totes/Bulk	Ascend SL	Contains three EPA registered plant growth regulators (cytokinin, gibberellic acid, indolebutyric acid) designed to provide vigorous early plant germination and emergence, a robust root system, larger leaves and wider stems.
Totes/Bulk	Resonate 480	Insecticide (imidacloprid) controls pests such as, but not limited to, aphids, hessian fly, wireworm and grasshopper.
Totes/Bulk	Seed+ Graphite	Contains three components (biostimulants, talc+graphite, nutrients) as a nutritional seed treatment/lubricant, it delivers efficiency at planting, a robust start for the crop, and defense against early-season stress.







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Cooperative

Seed Division
Mechanicsburg, OH
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