

SOYBEANS
E-LUMINATE
2021
SEED GUIDE
TRUSTED
LOCAL
PARTNERS

WET
TRUSTED
DETERMINED
HARD WORKING
FARMERS
GENES
TRAITS
GENETICS
HYBRIDIZATION
ARTISE



NORTHWEST IOWA



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WHATEVER IT TAKES, 365 DAYS A YEAR



Golden Harvest is driven to deliver the ultimate service experience on your farm, all year round. We'll be there to offer insights on your field conditions, listen to your needs and tailor recommendations to meet them exactly. Not just throughout the growing season, but long before planting and way beyond harvest.

Count on us to be relentless about adding value at every stage of your crop's development, from planting to monitoring performance to evaluating results and planning for the following year.





PRIORITIZING FARMER NEEDS IN EVERYTHING WE DO.

GENETICS, AGRONOMY AND SERVICE THAT NEVER QUILTS.

Golden Harvest is dedicated to developing quality products that meet specific farmer needs. Your Seed Advisor will recommend products that combine locally developed genetics with the traits you need, placed to deliver in your real field conditions. All backed by a year-round service experience that yields results.



UNIQUE GENETICS

To help you hit your harvest numbers, Golden Harvest is continually investing in optimizing product performance and bringing you a range of local choices. Our agronomists and R&D teams work closely with your local Seed Advisor to understand the issues you face and help address them with a locally bred and tested corn and soybean lineup that combines elite genetics with the most choice in industry-leading traits. But the real proof is in the field, where our corn and soybean products yielded 55 Top 3 Finishers and 185 Top 10 Finishers in 2019 FIRST Trials.¹



AGRONOMIC EXPERTISE

Seed Advisors tap into our agronomy team's expertise and leverage the wealth of data in our proprietary E-Luminate[®] digital platform to more precisely place products for maximum performance in your fields.



TIRELESS SERVICE

Count on your Golden Harvest[®] Seed Advisor for insights and local expertise that will help you make the right decisions for your crop throughout the current season and help plan for the next. Because it's not just service; it's a commitment to truly understanding you and your fields.

¹Farmers' Independent Research of Seed Technologies (FIRST). No product recommendation by FIRST is implied. See firstseedtests.com for details.



LOCALLY PROVEN CORN WITH INDUSTRY- LEADING GENETICS

To create hybrids that deliver in your individual conditions, Golden Harvest breeds and tests our products locally. Over 1,600 local trials ensure that we know what works in your area. Our corn hybrids offer:

- Proprietary germplasm with elite genetics that are proven to perform locally
- Strong agronomics, yield potential and standability
- Premium above- and below-ground insect control with Agrisure Duracade® and Agrisure Viptera® traits
- Opportunities to add to your bottom line with Enogen® Corn or Enogen Feed Corn
- The backing of a team of whose agronomic expertise delivers optimal product placement with performance-optimizing insights throughout the season

**FEATURING 32 TOP 3
FINISHERS AND 112
TOP 10 FINISHERS IN
2019 FIRST TRIALS!¹**



¹Farmers' Independent Research of Seed Technologies (FIRST). No product recommendation by FIRST is implied. See firstseedtests.com for details.

PROTECT YOUR CORN'S GENETIC YIELD POTENTIAL.

AGRISURE® TRAITS OFFER THE INDUSTRY'S BROADEST CHOICE OF CUTTING-EDGE TRAIT TECHNOLOGY.

Agrisure Duracade®

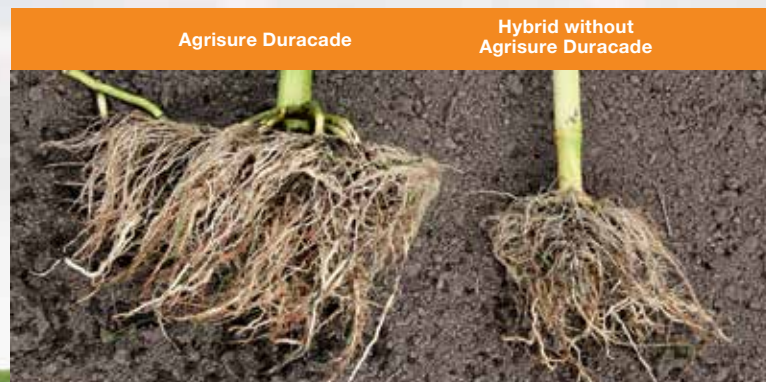
- Features a unique mode of action for strong control of corn rootworm
- Protects root systems for better nutrient and water uptake, helps ensure fuller leaves for increased photosynthesis and maximum grain fill, and results in strong plants that stand all season long
- Provides a new trait rotational option for a healthier crop
- Stacked option with Agrisure Viptera® trait controls 16 damaging above- and below-ground pests, more than any competitive stack
- Delivers a 4.1 bu/A yield advantage over products without Agrisure Duracade*

Agrisure Viptera®

- The industry's most comprehensive, best performing, most complete above-ground insect control
- The only trait that effectively controls western bean cutworm
- Reduces risk of mold and mycotoxin development through control of ear-feeding insects
- Delivers a 7.3 bu/A yield advantage under ear-feeding insect pressure**

Agrisure Artesian®

- Maximizes yield when it rains and increases yield when it doesn't
- Offers multiple genes for season-long drought protection
- Optimizes plant health through elite genetics that allow plants to manage gaps in rainfall season-long and yield exceptionally well in good conditions
- Delivers nearly 12% higher yields compared to other hybrids in severe and extreme drought²



*Data based on 2018 Syngenta trials

**Study results from Syngenta field trials in 33 locations

² Source info: Data is based on 7,613 Syngenta on-farm strip trials across the Corn Belt, 2010–2014.

Syngenta defines a yield environment of 50-99 bu/A as severe and fewer than 50 bu/A as extreme.

CORN CHARACTERISTICS

PRODUCT	TRAIT OFFERS					
	Above/Below Ground Insect Protection with E-Z Refuge		Above Ground Insect Protection with E-Z Refuge	Above Ground Insect Protection	No Insect Protection	No Insect Protection
Golden Harvest Hybrid Series	Agrisure Duracade	Agrisure 3122	Agrisure 3120 Agrisure Viptera	Agrisure Viptera 3110	Agrisure GT Agrisure GT/LL	Conventional
	G90Y04	5222A	3220A		GT/LL	
G94P48	5122A-LL					
G95D32			3220		GT/LL	
G95M41	5122					
G96R61 <i>NEW</i>	5222 <i>NEW</i>					
G96V99	5122					
G97N86	5222		3220			
G99E68 <i>NEW</i>	5122 <i>NEW</i>					
G00H12	5122				GT/LL <i>NEW</i>	
G02K39	5122		3120			
G02W74				3000GT		Conv.
G03C84	5122		3120			
G03R40	5222					
G04G36 <i>NEW</i>				3111A <i>NEW</i>		
G05K08	5122A					
G06Q68	5222		3220			
G07F23				3111	GT	Conv.
G08D29	5122A		3120A			
G08M20	5122		3120			
G09A86			3330	3000GT	GT/LL	
G09Y24	5222A		3220A			
G10D21 <i>NEW</i>			3330 <i>NEW</i>			
G10L16	5222A		3330A, 3220A <i>NEW</i>			Conv.-A <i>NEW</i>
G11F16				3111A		
G11V76 <i>NEW</i>	5122 <i>NEW</i>		3120 <i>NEW</i>			
G12S75 <i>NEW</i>	5122 <i>NEW</i>					
G12U17	5122		3120			
G13H15	5122		3120			
G13T41	5122		3120			
G13Z50	5222		3220			
G14R38		3122	3120		GT	Conv.
G15J91 <i>NEW</i>			3220 <i>NEW</i>			
G18D87				3111	GT	

Flex hybrids adjust to growing conditions by changing ear length or kernel depth. Determinate/Fixed hybrids are less able to adjust ear size. Plant Population is considered more important for a determinate-ear hybrid than for a flex-ear hybrid.

Ratings are based on interpretation of data gathered by Syngenta and/or observations across areas of adaptation and may change as additional data is gathered.

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 Corporation.



MATURITY INFORMATION			AGRONOMIC CHARACTERISTICS										PLANT CHARACTERISTICS						DISEASE TOLERANCE								PRODUCT		
Relative Maturity (RM)	GDUs to Silk	GDUs to Black Layer	Emergence	Seedling Vigor	Root Strength	Stalk Strength	Drought	Green Snap	Staygreen	Drydown	Test Weight	Blunt Ear	Plant Height	Ear Height	Root Type	Leaf Type	Ear Flex	Husk Cover	Cob Color	Gray Leaf Spot	Northern Corn Leaf Blight	Goss's Wilt	Bacterial Leaf Streak	Eyespot	Anthraxnose Stalk Rot	Tarspot	Fusarium Crown Rot	Common Rust	Golden Harvest Hybrid Series
92	1265	2325	2	3	4	2	1	3	3	3	2	3	2	2	F	P	SF	M	R	-	3	4	3	3	3	-	3	-	G90Y04
94	1260	2400	3	2	2	3	1	2	3	2	3	-	3	2	F	U	SF	L	R	-	3	3	4	3	3	-	3	-	G94P48
95	1280	2400	3	3	3	2	2	5	2	3	2	1	3	4	F	S-U	F	M	R	4	5	3	4	2	3	-	3	4	G95D32
95	1245	2365	3	3	2	3	3	2	3	3	3	-	3	4	M	U	SD	M	R	-	4	5	4	3	4	-	4	-	G95M41
96	1275	2400	2	2	3	2	2	2	3	3	2	-	2	2	F	U	SF	M	R	-	2	4	5	3	3	2	2	-	G96R61 <i>NEW</i>
96	1275	2420	3	3	2	5	4	3	3	2	3	5	4	4	M	S-U	SD	M	R	-	3	4	4	4	4	-	5	-	G96V99
97	1275	2400	2	2	4	2	3	3	3	3	3	5	3	2	M	U	SD	L	R	4	4	4	3	3	-	-	3	-	G97N86
99	1300	2445	3	2	2	3	3	4	2	3	3	-	3	3	M	S-U	SF	M	R	2	2	5	5	3	3	4	4	-	G99E68 <i>NEW</i>
100	1315	2420	3	3	2	3	2	2	4	3	3	-	5	5	M	S-U	SD	M	R	3	5	5	3	3	-	2	4	-	G00H12
102	1305	2475	3	3	2	2	2	2	1	3	5	-	5	5	M	U	F	M	R	3	4	3	5	3	-	4	2	-	G02K39
102	1300	2445	3	4	2	2	2	4	3	4	4	6	5	6	M	S-U	SF	S	R	3	2	6	5	4	4	4	3	-	G02W74
103	1355	2475	4	4	3	4	3	4	5	3	4	5	3	3	M	S-U	SF	M	R	4	3	4	5	3	4	3	4	3	G03C84
103	1335	2445	2	3	2	2	3	2	3	4	2	-	4	4	M	U	SD	M	R	4	5	3	3	3	-	3	2	-	G03R40
104	1320	2550	4	2	2	3	1	3	5	3	4	-	5	6	M	S-U	SF	L	R	3	3	3	5	4	5	4	5	-	G04G36 <i>NEW</i>
105	1310	2555	3	4	4	3	1	3	6	3	4	-	5	6	P	U	SD	M	R	4	3	4	6	3	4	5	5	-	G05K08
106	1355	2560	3	3	3	3	2	3	4	3	5	-	4	5	M	U	SF	M	R	5	2	4	4	5	-	4	4	-	G06Q68
107	1375	2570	3	3	3	2	2	3	4	3	4	-	5	5	M	S-U	SF	M	Pi	3	2	4	5	3	-	3	3	5	G07F23
108	1405	2560	2	3	3	3	1	2	5	4	4	-	4	5	M	S-U	SF	M	Pi	4	2	3	2	4	-	4	4	4	G08D29
108	1365	2575	3	3	3	3	3	5	5	4	3	-	5	5	M	S-U	SF	L	R	3	3	4	4	4	-	6	5	7	G08M20
109	1385	2580	3	2	3	2	3	5	4	4	4	-	3	4	M	S-U	SD	M	Pi	2	5	4	4	5	-	4	4	5	G09A86
109	1420	2570	3	3	4	4	1	3	5	4	4	-	5	3	M	S-U	SF	M	R	5	2	4	4	3	-	4	5	-	G09Y24
110	1410	2570	3	2	3	3	3	5	3	4	4	-	3	2	M	S-U	SD	S	Pi	2	2	3	4	-	2	3	4	3	G10D21 <i>NEW</i>
110	1395	2620	2	3	4	4	1	4	5	2	4	-	5	6	M	S-U	SF	M	R	4	6	3	3	3	-	-	4	7	G10L16
111	1430	2590	4	4	2	2	1	4	2	3	5	-	5	5	M	P	SF	M	R	4	3	5	5	2	-	5	3	4	G11F16
111	1430	2600	3	3	3	4	2	3	4	3	2	-	4	6	F	U	SF	L	Pi	4	3	6	3	-	3	3	3	7	G11V76 <i>NEW</i>
112	1430	2630	4	3	3	2	3	5	2	4	4	-	2	4	M	U	SF	M	R	3	3	3	4	-	3	2	3	7	G12S75 <i>NEW</i>
112	1425	2620	3	3	4	2	4	2	2	2	4	-	3	3	M	S-U	SF	M	R	4	3	5	3	-	-	-	2	-	G12U17
113	1420	2640	3	4	3	2	2	3	3	3	4	-	3	3	M	U	SD	M	R	3	4	3	4	-	-	-	2	-	G13H15
113	1435	2605	4	3	2	2	2	2	2	3	3	-	4	5	M	S-U	SF	L	R	4	2	5	3	2	-	-	4	2	G13T41
113	1435	2650	2	2	2	4	3	3	3	2	4	-	4	4	M	S-U	SD	M	R	4	3	3	3	4	-	-	4	7	G13Z50
114	1435	2630	3	3	2	3	3	3	4	3	3	-	3	2	M	U	SD	M	R	5	4	4	4	3	4	-	3	3	G14R38
115	1455	2665	4	5	2	4	3	4	4	4	3	-	3	5	M	U	SF	L	W	4	2	5	3	-	2	2	4	7	G15J91 <i>NEW</i>
118	1480	2700	4	4	4	3	3	3	2	3	2	-	2	3	M	S-U	SF	L	R	3	3	4	3	5	-	-	4	3	G18D87

Rating Scale
 1 = Best
 9 = Worst
 - = Not available

Test Weight
 1 = High
 9 = Low

Plant Height
 1 = Tall
 9 = Short

Ear Height
 1 = High
 9 = Low

Root Type
 P = Penetrating
 M = Modified
 F = Fibrous

Leaf Type
 U = Upright
 S-U = Semi-Upright
 P = Pendulum

Ear Flex
 F = Flex
 SF = Semi-Flex
 SD = Semi-Determinate
 D = Determinate

Husk Cover
 S = Short
 M = Medium
 L = Long

Cob Color
 R = Red
 Pi = Pink
 W = White

Disease Tolerance
 1 = High
 9 = Low
 - = Not available

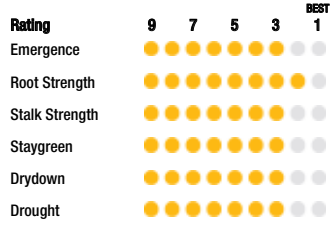
Drought
 Agrisure Artesian
 water-optimized hybrid.

G95M41

RM: 95

EXCELLENT YIELDS IN PRODUCTIVE ENVIRONMENTS

- Excels on well-drained soils with higher management
- Quick drydown for an early harvest
- Outstanding roots with yield stability



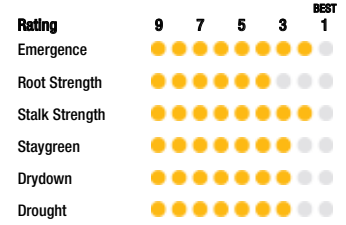
G95M41-5122 E-Z Refuge Brand

G97N86

RM: 97

EXCELLENT YIELD PERFORMANCE IN HIGH-YIELD ENVIRONMENTS

- Dependable emergence with strong early vigor
- Responds well to high populations
- Superb stalks for season-long standability



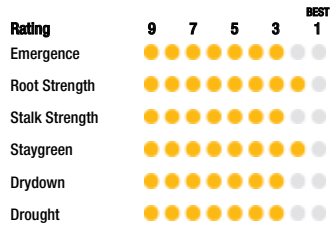
G97N86-5222 E-Z Refuge Brand
G97N86-3220 E-Z Refuge Brand

G99E68

NEW // RM: 99

TOP-END YIELD POTENTIAL WITH OUTSTANDING ROOTS AND STALKS

- Broad adaptation across soils
- Excellent late-season plant health for season-long standability
- Exceptional performance in poorly drained soils



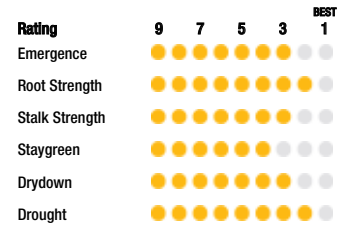
G99E68-5122 E-Z Refuge Brand **NEW**

G00H12

RM: 100

GREAT YIELD STABILITY ACROSS ENVIRONMENTS

- Shorter plant stature with medium ear placement
- Strong drought tolerance
- Solid stalks and roots for season-long standability



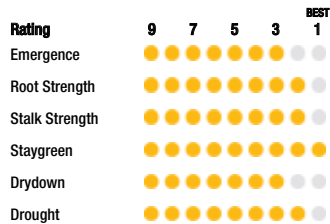
G00H12-5122 E-Z Refuge Brand
G00H12-GT/LL Brand **NEW**
E100H1-5122 E-Z Refuge Brand

G02K39

RM: 102

YIELD STABILITY AND PLANT HEALTH FOR CONSISTENT PERFORMANCE

- Broadly adapted across soil types and management objectives
- Excellent plant health and disease package
- Good ear flex provides population flexibility



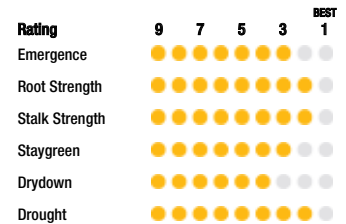
G02K39-5122 E-Z Refuge Brand
G02K39-3120 E-Z Refuge Brand

G02W74

RM: 102

TOP-END PERFORMANCE IN ALL YIELD ENVIRONMENTS

- Excellent root and stalk strength
- Very good staygreen and late-season intactness
- Early flowering and black layer for good northern adaptation



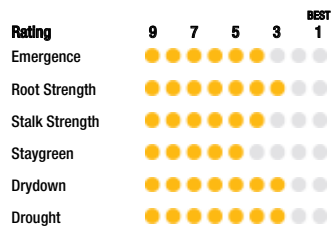
G02W74-3000GT Brand
G02W74 Brand (Conv.)

G03C84

RM: 103

DIVERSE GENETICS WITH TOP-END YIELD

- Quick drydown for timely harvest
- Strong disease package to protect yield
- Ear flex for population flexibility



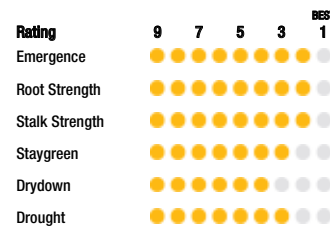
G03C84-5122 E-Z Refuge Brand
G03C84-3120 E-Z Refuge Brand

G03R40

RM: 103

YIELD LEADER WITH BROAD ADAPTATION AND YIELD STABILITY

- Broadly adapted across soil types and management levels
- Excellent stalks and roots for late season standability
- Strong emergence for early planting confidence



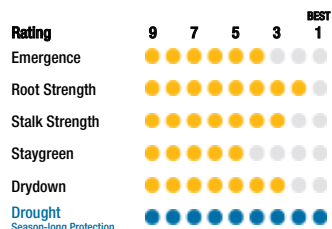
G03R40-5222 E-Z Refuge Brand

G04G36 Artesian

NEW // RM: 104

YIELD STABILITY SUPPORTED BY OUTSTANDING ROOTS AND SOLID STALKS

- Agrisure Artesian corn hybrid provides superior drought tolerance
- Broadly adapted hybrid across all soil environments and management styles
- Solid choice for areas with low to moderate corn rootworm pressure



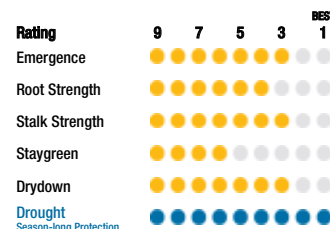
G04G36-3111A Brand NEW

G05K08 Artesian

RM: 105

MEDIUM PLANT HEIGHT WITH EXCITING YIELD POTENTIAL

- Maximizes yield when it rains, increases yield when it doesn't
- Widely adapted across all soil types
- Solid stalk strength



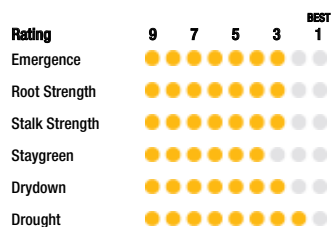
G05K08-5122A E-Z Refuge Brand

G06Q68

RM: 106

STRONG PERFORMANCE IN HIGH-YIELD ENVIRONMENTS

- Medium plant height with good stalks and roots
- Performs well under a wide range of populations
- Adapted to most soil types



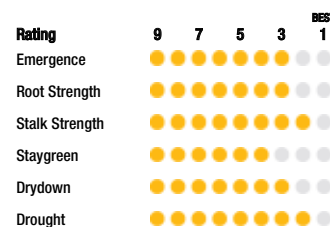
G06Q68-5222 E-Z Refuge Brand
G06Q68-3220 E-Z Refuge Brand
E106Q6-5122 E-Z Refuge Brand

G07F23

RM: 107

BROADLY ADAPTED HYBRID WITH CONSISTENT PERFORMANCE ACROSS YIELD ENVIRONMENTS

- Moderate plant stature with very good root strength
- Excellent stalk strength for late-season standability
- Consistent ear with very good grain quality



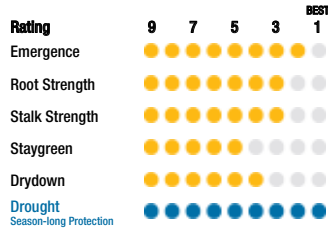
G07F23-3111 Brand
G07F23-GT Brand
G07F23 Brand (Conv.)

G08D29 Artesian

RM: 108

EXCELLENT STALKS AND ROOTS FOR SEASON-LONG STANDABILITY

- Maximizes yield when it rains, increases yield when it doesn't
- Excellent emergence
- Performs well under a wide range of populations



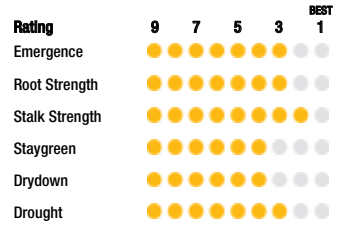
G08D29-5122A E-Z Refuge Brand
G08D29-3120A E-Z Refuge Brand

G09A86

RM: 109

TOP-END YIELD WITH SOUND AGRONOMICS

- Excellent stalks and strong roots for season-long standability
- Outstanding choice for variable soils provides consistent performance
- Strong protection against Gray Leaf Spot to minimize risk



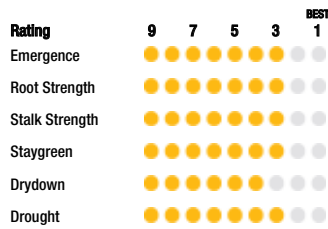
G09A86-3330 E-Z Refuge Brand
G09A86-3000GT Brand
G09A86-GT/LL Brand

G10D21

NEW // RM: 110

TOP-END YIELDS WITH OUTSTANDING ROOTS AND STALKS FOR SEASON-LONG STANDABILITY

- Consistent high yield potential
- Broadly adapted with a great disease package
- Maximize yield potential and performance with higher populations



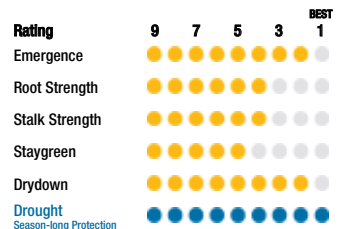
G10D21-3330 E-Z Refuge Brand **NEW**

G10L16 Artesian

RM: 110

INDUSTRY-LEADING YIELD PERFORMANCE ACROSS ALL ACRES

- Leading drought tolerance powered by Agrisure Artesian Technology
- Moderate plant structure for residue management
- Excellent drydown for an early harvest option



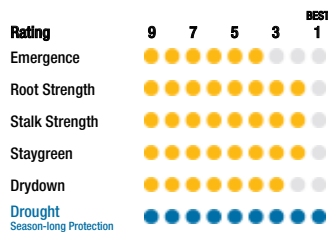
G10L16-5222A E-Z Refuge Brand
G10L16-3330A E-Z Refuge Brand
G10L16-3220A E-Z Refuge Brand **NEW**
G10L16-A Brand (Conv.) **NEW**

G11F16 Artesian

RM: 111

OUTSTANDING YIELD POTENTIAL WITH AGRISURE ARTESIAN TECHNOLOGY

- Maximizes yield when it rains; increases yield when it doesn't
- Proven yield across multiple soil types and environments for stable performance
- Excellent root and stalk strength for ease of harvest



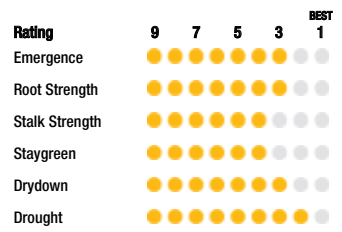
G11F16-3111A Brand

G11V76

NEW // RM: 111

VERSATILITY ACROSS SOIL TYPES COMBINED WITH STRONG DROUGHT TOLERANCE

- Moderate plant type with strong roots aids standability
- Fast drydown and good grain quality
- Dependable emergence in stressful environments



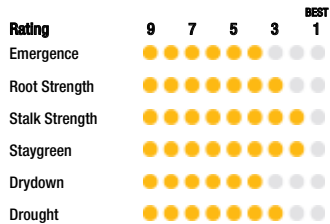
G11V76-5122 E-Z Refuge Brand **NEW**
G11V76-3120 E-Z Refuge Brand **NEW**

G12S75

NEW // RM: 112

OUTSTANDING ROOTS AND STALKS FOR SEASON-LONG STANDABILITY

- Very good staygreen and late-season intactness
- Strong disease tolerance to NCLB and GLS
- Good ear flex provides population flexibility



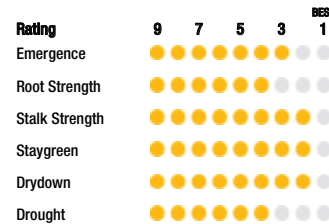
G12S75-5122 E-Z Refuge Brand NEW

G12U17

RM: 112

EXCELLENT STALKS FOR SEASON-LONG STANDABILITY

- Exceptional performance in poorly drained soils
- Outstanding late season plant health and intactness
- Excellent drydown for an early harvest option



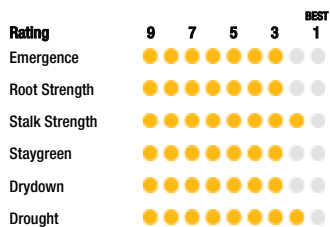
G12U17-5122 E-Z Refuge Brand
G12U17-3120 E-Z Refuge Brand

G13H15

RM: 113

BROADLY ADAPTED HYBRID FOR EXCELLENT PERFORMANCE ACROSS YIELD ENVIRONMENTS

- Very strong stalks for season-long standability
- Outstanding late-season plant health and intactness
- Strong performance under drought conditions



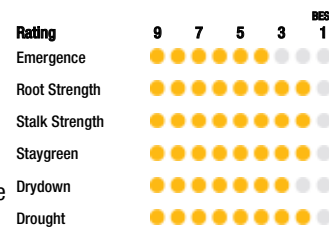
G13H15-5122 E-Z Refuge Brand
G13H15-3120 E-Z Refuge Brand

G13T41

RM: 113

EXCELS IN HIGH-YIELD, HIGHLY PRODUCTIVE ENVIRONMENTS

- Superior root and stalk strength provides late-season intactness
- Versatile hybrid that performs well across all soil types
- Best performance in low to moderate pH soils



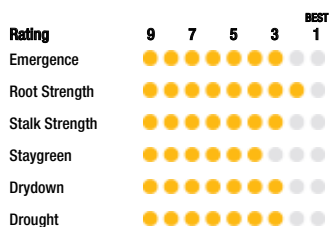
G13T41-5122 E-Z Refuge Brand
G13T41-3120 E-Z Refuge Brand

G14R38

RM: 114

OUTSTANDING YIELD PERFORMANCE WITH AN EXCELLENT AGRONOMIC PACKAGE

- Strong emergence and seedling vigor
- Superb root strength and proven stalk strength
- Excellent choice for continuous corn acres



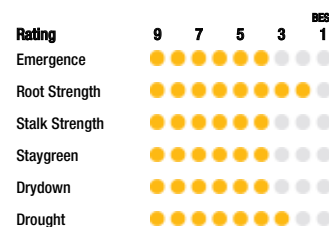
G14R38-3122 E-Z Refuge Brand
G14R38-3120 E-Z Refuge Brand
G14R38-GT Brand
G14R38 Brand (Conv.)

G15J91

NEW // RM: 115

OUTSTANDING ROOTS AND ABOVE-AVERAGE STALKS FOR SEASON-LONG STANDABILITY

- Exceptional versatility on a wide range of soil types
- Good ear flex provides population flexibility
- Strong fit for drought-prone environments



G15J91-3220 E-Z Refuge Brand NEW

CORN AGRONOMIC MANAGEMENT

PRODUCT		AGRONOMIC MANAGEMENT AND PLACEMENT TRAITS													END-USE TRAITS					
Golden Harvest Hybrid Series	Relative Maturity (RM)	Seeding Rate % Adjustment					Root Strength		Stalk Strength		Adaptation to Soil Types/ Yield Environments						Starch	Protein	Oil	Feed to Gain
		- 20%	- 10%	0%	+ 10%	+ 20%			Corn-on-Corn	Drought Prone	High pH	Highly Productive	Variable	Poorly Drained						
G90Y04	92	G	B	B	B	G	4	2	B	B	G	B	B	G	B	G	F	G		
G94P48	94	G	G	B	G	G	2	3	G	B	G	G	B	B	G	G	G	G		
G95D32	95	G	B	B	G	G	3	2	G	B	G	B	B	B	B	F	F	G		
G95M41	95	G	G	B	G	G	2	3	F	F	G	B	G	G	B	F	F	G		
G96R61 <i>NEW</i>	96	G	G	B	G	G	3	2	G	B	F	G	G	B	G	B	P	F		
G96V99	96	G	B	B	G	G	2	5	G	F	G	B	G	F	B	F	G	G		
G97N86	97	G	G	B	B	G	4	2	G	P	G	B	F	G	G	B	F	G		
G99E68 <i>NEW</i>	99	G	G	B	G	G	2	3	G	G	G	B	G	B	-	B	B	F		
G00H12	100	G	G	B	B	G	2	3	G	G	B	B	G	G	F	G	G	F		
G02K39	102	F	G	B	B	G	2	2	B	B	F	B	B	B	F	G	G	B		
G02W74	102	F	G	B	B	B	2	2	G	B	F	B	G	G	G	G	F	B		
G03C84	103	G	B	B	G	F	3	4	F	B	F	B	B	F	G	F	B	G		
G03R40	103	F	G	B	B	G	2	2	B	G	G	B	G	B	F	G	G	F		
G04G36 <i>NEW</i>	104	G	G	B	G	G	2	3	F	B	F	G	G	G	-	F	F	B		
G05K08	105	G	B	B	G	G	4	3	G	B	G	B	B	G	G	G	B	B		
G06Q68	106	G	G	B	B	G	3	3	B	B	F	B	B	G	B	F	F	G		
G07F23	107	G	G	B	G	G	3	2	G	B	P	B	B	G	G	F	B	B		
G08D29	108	G	G	B	G	G	3	3	B	B	F	B	B	G	F	G	B	G		
G08M20	108	B	B	B	G	F	3	3	G	G	G	B	B	F	B	F	G	G		
G09A86	109	F	G	B	B	B	3	2	G	G	F	B	B	B	F	G	G	B		
G09Y24	109	G	B	B	G	F	4	4	F	B	P	B	B	G	F	G	B	F		
G10D21 <i>NEW</i>	110	G	G	B	G	G	3	3	G	F	F	G	G	G	G	G	B	G		
G10L16	110	G	G	B	G	G	4	4	B	B	F	B	G	G	B	F	F	G		
G11F16	111	G	G	B	B	G	2	2	G	B	P	B	B	G	G	F	G	G		
G11V76 <i>NEW</i>	111	G	G	B	G	G	3	4	G	G	G	G	G	G	-	B	G	G		
G12S75 <i>NEW</i>	112	G	G	B	G	G	3	2	B	F	F	B	B	B	-	B	F	G		
G12U17	112	G	G	B	G	G	4	2	F	F	G	B	G	B	B	B	F	G		
G13H15	113	F	G	B	G	F	3	2	G	G	F	B	B	B	F	G	G	G		
G13T41	113	G	G	B	G	G	2	2	B	B	P	B	B	B	F	G	G	G		
G13Z50	113	G	G	B	B	B	2	4	G	G	G	B	B	B	G	G	F	G		
G14R38	114	G	G	B	B	B	2	3	B	G	F	B	B	B	G	F	G	B		
G15J91 <i>NEW</i>	115	G	B	B	G	F	2	4	F	G	G	B	B	B	-	B	B	G		
G18D87	118	F	G	G	B	B	4	3	B	G	G	B	G	G	G	B	F	P		

Rating Scale
 1 = Best
 9 = Worst
 - = Not available

Score Interpretation
 B = Best
 G = Good
 F = Fair
 P = Poor
 - = Not available

Drought
 Agrisure Artesian
 water-optimized hybrid.

Agronomy ratings are based on statistically analyzed results of studies conducted by Syngenta and are relative to other hybrids within the same maturity group.

Corn Population Response Factors

This annual study aids farmers’ understanding of how yield environment, grain price, seed cost and hybrid population response influence seeding rate recommendations. Information from this study is useful in determining the optimum planting population for each hybrid and field.

Influence of Yield Environment and Commodity Price on Optimum Seeding Rate

YIELD ENVIRONMENT (BU/A)	HIGHEST YIELDING SEEDING RATE (SEEDS/A)	OPTIMUM SEEDING RATE (SEEDS/A) BY COMMODITY PRICE (\$/BU) (SEED COST = \$200/80K UNIT)				
		\$3.00	\$3.50	\$4.00	\$4.50	\$5.00
280	40,200	36,600	37,100	37,500	37,700	38,000
240	38,500	34,100	34,700	35,100	35,500	35,800
200	36,400	31,000	31,700	32,300	32,700	33,100
160	33,800	26,900	27,700	28,400	29,000	29,400
120	29,700	20,900	21,900	22,700	23,400	23,900

General Interpretation of Hybrid Response to Management/Placement Situations and End-Use Traits

The Agronomy in Action Research program analyzes the agronomic characteristics of Golden Harvest products to aid in placement and usage in real-world farm situations. With Agronomy in Action locations positioned throughout the Corn Belt, the annual research answers the “why,” “how” and “where” questions of best management practices for our products. Uniform testing methodology ensures that research results are a reliable prediction of the response farmers will see in their fields. By conducting this annual research and compiling across multiple years, Golden Harvest provides tremendous insight into specific management tactics for each product—insight farmers can use to maximize the potential for profit on their farms. The Agronomic Management chart lists hybrid performance characteristics collected from results of these studies.

Seeding Rate % Adjustment: After determining the best corn seeding rate for your field (or zones within field) from the chart above, consider fine-tuning seeding rates with hybrid-specific response knowledge. The seeding rate adjustment chart highlights different hybrids’ ability to be planted at seeding rates greater than or less than the normal recommended rate based on the economic response from agronomic trialing. Root and Stalk strength ratings are also provided for additional knowledge of hybrid agronomic fit for planting at increased seeding rates.

Adaptation to Soil Types/Yield Environments: Ratings and soil type classifications are based on interpretation of studies conducted by Syngenta.

Corn-on-Corn: Two key criteria are used to determine corn-on-corn crop rotation hybrid ratings: 1) Corn-on-corn yield retention data, calculated by comparing each hybrid’s yield in a corn-on-corn rotation versus a corn-on-soybean rotation, which was then compared to the average corn-on-corn yield retention of all hybrids tested, and 2) Hybrid agronomic characteristics; characteristics include early season vigor, root characteristics and disease tolerance.

High pH Performance: Ratings represent an assessment of stand establishment, chlorosis severity and yield performance.

End-Use Traits: The Corn Hybrid Grain End-Use Ratings provide information that can help farmers who produce corn for livestock, the ethanol industry or other grain end uses where grain quality can be just as important as grain yield. These Corn Hybrid Grain End-Use Ratings are supported by collecting grain samples from internal company trials, which are sent to an independent laboratory for protein, oil and starch analysis.

Feed to Gain Response: Feed to gain is the average pounds of feed needed for each pound of animal gain. Lower feed to gain values are more desirable because animals consume less feed to produce the same amount of weight gain, potentially resulting in less feed input cost. The Corn Hybrid Beef Feed to Gain Ratings are provided to help farmers produce the best corn for livestock rations. These Corn Hybrid Beef Feed to Gain Ratings are supported by collecting grain samples from internal company trials, which are sent to an independent laboratory to analyze for kernel density/hardness (grams/cubic centimeter) and kernel weight per 1000 kernels. Individual hybrid ratings illustrate which hybrids provide the best feed to gain response.

“GOLDEN HARVEST LOOKS FORWARD TO WORKING WITH YOU TO BUILD ON THE LEGACY OF OUR HISTORIC BRAND. WE PROMISE TO ALWAYS PUT YOUR NEEDS FIRST, WHILE BRINGING YOU GENETICS, AGRONOMY AND SERVICE PAIRED WITH NEW SOLUTIONS LIKE E-LUMINATE AND GAME PLAN.”



Dave Young

Head, Golden Harvest Marketing



SILAGE PRODUCTS SELECTED TO PERFORM FOR YOUR HERD.

Trust your Seed Advisor to understand the silage needs of your operation and offer product recommendations to help increase the productivity of your herd. In addition to choosing hybrids that fit your soil conditions and your grain quality requirements, your Seed Advisor can offer advice on:

- Testing soil to monitor fertility issues as a result of manure applications
- Planting population recommendations and planting timing considerations
- Harvest timing to ensure optimal moisture and higher quality silage
- How Enogen® Feed corn hybrids may increase your potential return on investment

CORN SILAGE HYBRID SELECTION

Silage quality and yield scores are based on actual tonnage—the silage analysis values were compared to hybrids of similar maturity.

PRODUCT	AGRONOMIC CHARACTERISTICS	DISEASE TOLERANCE	AGRONOMIC RESEARCH RATINGS																			
			Feed Effect On*																			
Golden Harvest Hybrid Series	Relative Maturity (RM)	Emergence	Root Strength	Drought	Staygreen	Plant Height	Ear Height	Gray Leaf Spot	Goss's Wilt	Yield (Ton/A)	CP (% of DM)	NDF 48 hr (%)	NDF Dig. 48 hr (%)	Starch (% of DM)	Fat (% of DM)	TDN (% of DM)	NEL (Mcal/lb)	Milk (lbs/Ton)*	Milk (lbs/A)*	Beef (lbs/Ton)*	Beef (lbs/A)*	
G90Y04	92	2	4	1	3	2	2	-	4	B	B	F	G	G	B	G	G	G	B	G	B	G
G94P48	94	3	2	1	3	3	2	-	3	B	G	G	G	F	-	B	-	G	G	G	G	G
G95D32	95	3	3	2	2	3	4	4	3	B	F	G	G	B	B	G	G	B	B	B	B	B
G95M41	95	3	2	3	3	3	4	-	5	F	F	G	F	B	-	F	-	F	F	F	F	F
G96V99	96	3	2	4	3	4	4	-	4	B	G	B	F	B	G	B	G	B	B	B	B	B
G97N86	97	2	4	3	3	3	2	4	4	B	B	G	F	G	B	G	G	B	B	B	B	B
G00H12	100	3	2	2	4	5	5	3	5	B	B	F	F	G	B	F	F	F	G	F	G	G
G02K39	102	3	2	2	1	5	5	3	3	B	G	G	G	B	B	B	B	B	B	B	B	B
G02W74	102	3	2	2	3	5	6	3	6	F	G	B	B	G	G	G	G	G	F	G	F	F
G03C84	103	4	3	3	5	3	3	4	4	G	G	G	G	B	B	G	G	F	G	G	G	G
G03R40	103	2	2	3	3	4	4	4	3	F	B	P	F	P	B	F	F	F	F	F	F	F
G05K08	105	3	4	1	6	5	6	4	4	G	B	B	G	B	B	G	G	G	G	G	G	G
G06Q68	106	3	3	2	4	4	5	5	4	F	G	G	G	B	B	G	B	G	F	G	F	F
G07F23	107	3	3	2	4	5	5	3	4	B	G	G	G	G	G	B	B	B	B	B	B	B
G08D29	108	2	3	1	5	4	5	4	3	G	G	F	G	G	B	G	G	G	F	G	F	F
G08M20	108	3	3	3	5	5	5	3	4	G	B	B	G	B	B	F	G	F	F	F	F	F
G09A86	109	3	3	3	4	3	4	2	4	B	B	G	F	B	G	G	G	G	G	G	B	B
G09Y24	109	3	4	1	5	5	3	5	4	G	G	G	B	G	G	B	B	B	G	B	G	G
G10L16	110	2	4	1	5	5	6	4	3	F	G	B	G	B	B	G	G	G	F	G	F	F
G11F16	111	4	2	1	2	5	5	4	5	F	G	G	G	B	F	F	G	G	F	G	F	F
G12U17	112	3	4	4	2	3	3	4	5	G	G	B	B	B	F	G	G	G	G	G	G	G
G13H15	113	3	3	2	3	3	3	3	3	B	F	G	F	G	F	G	G	G	B	G	B	B
G13Z50	113	2	2	3	3	4	4	4	3	F	F	G	G	G	F	G	G	G	F	G	F	F
G14R38	114	3	2	3	4	3	2	5	4	G	F	B	G	B	B	B	B	B	B	B	B	B
G18D87	118	4	4	3	2	2	3	3	4	B	B	G	B	G	G	B	B	B	B	B	B	B

NOTE: Hybrid characteristics such as staygreen and drought stress tolerance are also important to consider when selecting hybrids for silage. Digestibility ratings are based on NIR and in-vitro digestibility analysis. Milk performance estimates generated from University of Wisconsin equations. Comparisons should only be made among hybrids within a maturity group. Although actual silage yield and quality analysis of a hybrid will vary with environment, the relative ranking of a hybrid will be similar. These ratings are a relative performance guide. Conduct a laboratory test to determine actual silage quality when balancing a feed ration.

Rating Scale

1 = Best
9 = Worst
- = Not available

Plant Height

1 = Tall
9 = Short

Ear Height

1 = High
9 = Low

Ratings Key

B = Best
G = Good
F = Fair
P = Poor
- = Not available

Drought:

Agrisure Artesian water-optimized hybrid.

Using This Chart

Yield: Calculated on a per-acre basis and adjusted to standard moisture.

Crude Protein (CP): Indicates the percent content of feed component relative to other hybrids.

Neutral Detergent Fiber (NDF 48 hr): Measure of the indigestible and slowly digestible components of the silage.

Neutral Detergent Fiber Digestibility 48 Hour (NDF Dig 48 hr): Estimates the ruminant digestibility of the NDF fraction.

Starch: Indicates the percent content of feed component.

Fat: Indicates the percent of feed component that is fat.

Total Digestible Nutrients (TDN): Sum of the digestibility of different nutrients.

Net Energy Lactation (NEL): Feed effect on net energy for lactating cows based on acid detergent fiber (ADF).

Milk/Ton: An estimate of forage quality driven by starch content, starch digestibility and NDF; **Milk/A** combines the estimate of forage quality (Milk/Ton) and yield (Tons/A) into a single term.**

Beef/Ton: A proprietary estimate of forage quality driven by TDN; **Beef/A** combines the estimate of forage quality (Beef/Ton) and yield (Tons/A) into a single term.

*NOTE: These ratings should not be used to estimate actual production per animal, but instead they should be used to determine relative overall silage quality and yield of each hybrid.

**Milk/A: Combining yield and quality into a single term, <https://fyi.uwex.edu/forage/files/2016/11/Milk-2016-Combining-Yield-and-Quality-into-a-Single-Term-2.pdf>

CORN WITH MORE PROFIT POTENTIAL

INCREASE YOUR PROSPECTIVE ROI ON GRAIN
PRODUCED FOR LIVESTOCK, SILAGE OR ETHANOL.

With proven, high-yielding hybrids across a variety of soil conditions, Enogen® corn hybrids may help boost the bottom line for producers of livestock, dairy or ethanol.



ADDED VALUE IN BEEF AND DAIRY


- Enogen Feed corn hybrids in livestock production has been shown to increase feed efficiency by an average of 5% in stocker and finishing cattle, according to feeding trials at the University of Nebraska-Lincoln (UNL) and Kansas State University (KSU)¹
- Enogen Feed corn hybrids improve starch utilization, resulting in more available energy for your herd
- Enogen Feed corn hybrids may be harvested as silage, grain or high-moisture corn, allowing for greater flexibility and ease of use with minimized management needs, as compared to alternative silage-specific hybrids for beef or dairy operations
- Farm-proven yields, equal to or better than non-Enogen Feed hybrids²

ADDED VALUE IN ETHANOL PRODUCTION

- Enogen corn enables farmers to produce highly desirable corn for ethanol plants
- Enogen hybrids feature a unique corn enzyme that is designed to increase potential throughput while reducing natural gas, water and electricity use
- These highly desirable traits may command a premium at sale for potential increased return on investment

¹University of Nebraska-Lincoln Research Studies, 2013-2017; Kansas State University Research Study, 2017.
²Syngenta production data 2012-2017

ENOGEN HYBRID CHARACTERISTICS

PRODUCT	TRAIT OFFERS*		MATURITY INFORMATION			AGRONOMIC CHARACTERISTICS										PLANT CHARACTERISTICS						DISEASE TOLERANCE																
			Relative Maturity (RM)	GDUs to Silk	GDUs to Black Layer	Emergence	Seedling Vigor	Root Strength	Stalk Strength	Drought	Green Snap	Staygreen	Drydown	Test Weight	Blunt Ear	Plant Height	Ear Height	Root Type	Leaf Type	Ear Flex	Husk Cover	Cob Color	Gray Leaf Spot	Northern Corn Leaf Blight	Goss's Wilt	Bacterial Leaf Streak	Eyespot	Anthraxnose Stalk Rot	Tarspot	Fusarium Crown Rot	Common Rust							
Enogen Hybrid Series	Above/Below Ground Insect Protection E-Z Refuge 	Above/Below Ground Insect Protection Agrisure 3000GT																																				
E092T4		3000GT	92	1265	2350	3	3	5	4	3	3	3	2	5	3	2	2	F	P	F	M	R	5	3	6	-	3	4	-	5	2							
E095D3	5122		95	1280	2400	3	3	3	2	2	5	2	3	2	1	3	4	F	S-U	F	M	R	4	5	3	4	2	3	-	3	4							
E100H1	5122		100	1315	2420	3	3	2	3	2	2	4	3	3	-	5	5	M	S-U	SD	M	R	3	5	5	3	3	-	2	4								
E105T1		3000GT	105	1355	2550	2	2	5	2	2	4	2	3	4	2	2	3	M	U	SF	M	Pi	4	5	3	4	4	2	3	2	3							
E106Q6	5122		106	1355	2560	3	3	3	3	2	3	4	3	5	-	4	5	M	U	SF	M	R	5	2	4	4	5	-	4	4								
E108M2	5122		108	1365	2575	3	3	3	3	3	5	5	4	3	-	5	5	M	S-U	SF	L	R	3	3	4	4	4	-	6	5	7							
E109R3		3000GT	109	1395	2570	3	2	5	2	2	4	2	4	2	-	2	3	M	U	SD	M	Pi	3	3	5	-	6	2	-	2	3							
E109Y2	5122A		109	1420	2570	3	3	4	4	1	3	5	4	4	-	5	3	M	S-U	SF	M	R	5	2	4	4	3	-	4	5	-							
E111A3	5122		111	1435	2600	4	4	2	2	2	3	2	3	3	-	5	4	M	P	SF	M	R	3	3	5	3	2	-	4	4	3							
E112J1		3011A	112	1415	2600	2	2	4	4	1	4	2	3	2	-	3	2	F	U	SF	M	R	3	4	3	4	4	-	-	4	3							
E113Z5	5122		113	1435	2650	2	2	2	4	3	3	3	2	4	-	4	4	M	S-U	SD	M	R	4	3	3	3	4	-	-	4	7							
E116K4		3000GT	116	1465	2690	4	3	5	3	2	3	3	2	4	-	4	4	M	P	F	M	Pi	5	4	3	4	5	3	-	4	6							
E118D8		3000GT	118	1480	2700	4	4	4	3	3	3	2	3	2	-	2	3	M	S-U	SF	L	R	3	3	4	3	5	-	-	4	3							

Rating Scale
 1 = Best
 9 = Worst
 - = Not available

Plant Height
 1 = Tall
 9 = Short

Ear Height
 1 = High
 9 = Low

Test Weight
 1 = High
 9 = Low

Root Type
 P = Penetrating
 M = Modified
 F = Fibrous

Leaf Type
 U = Upright
 S-U = Semi-Upright
 P = Pendulum

Ear Flex
 F = Flex
 SF = Semi-Flex
 SD = Semi-Determinate
 D = Determinate

Husk Cover
 S = Short
 M = Medium
 L = Long

Cob Color
 R = Red
 Pi = Pink
 W = White

Disease Tolerance
 1 = High
 9 = Low
 - = Not available

Drought:
 Agrisure Artesian
 water-optimized hybrid.

Flex hybrids adjust to growing conditions by changing ear length or kernel depth. Determinate/Fixed hybrids are less able to adjust ear size. Plant Population is considered more important for a determinate-ear hybrid than for a flex-ear hybrid.

Note: Disease and Insect Ratings

Ratings are not absolute; environmental conditions and certain cultural practices, such as continuous corn, play a critical role in disease development and insect infestation, which can, in turn, predispose plants to secondary disease such as stalk and ear rots. If conditions are severe, even hybrids rated as resistant can be adversely affected. Farmers should balance yield potential, hybrid maturity and cultural practices against the anticipated risk of disease or insect pressure.

Ratings are based on interpretation of statistically analyzed results of studies conducted by Syngenta.

	EVT TYPE	HERBICIDE TOLERANCE	
		GLYPHOSATE	GLUFOSINATE
Enogen Hybrids with Agrisure Duracade® 5122 trait stack	EZT1	x	x
	EZT0	x	
Enogen Hybrids with Agrisure® 3000GT trait stack or Agrisure Artesian® 3011A trait stack	EVT5.1	x	x
	EVT3	x	
	EVTL	x	x
	No EVT	x	x

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.

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.



EXPERIENCE THE ENOGEN EFFECT

Scan and hear about the Enogen advantage in dairy from a university expert.

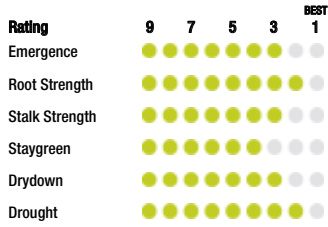


E100H1

RM: 100

GREAT YIELD STABILITY ACROSS ENVIRONMENTS

- Shorter plant stature with medium ear placement
- Strong drought tolerance
- Solid stalks and roots for season-long standability



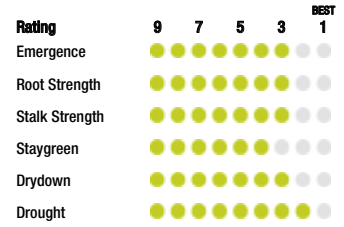
E100H1-5122 E-Z Refuge Brand

E106Q6

RM: 106

STRONG PERFORMANCE IN HIGH-YIELD ENVIRONMENTS

- Medium plant height with good stalks and roots
- Performs well under a wide range of populations
- Adapted to most soil types



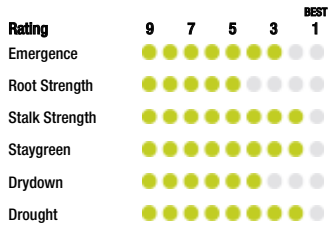
E106Q6-5122 E-Z Refuge Brand

E109R3

RM: 109

HIGH-YIELDING GENETICS THAT PERFORM ON YOUR BEST ACRES

- Outstanding stalk strength with a strong disease package
- Well adapted in and north of zone
- Best performance at medium to high plant populations



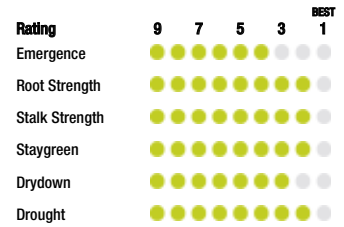
E109R3-3000GT Brand

E111A3

RM: 111

MODERATE PLANT HEIGHT WITH CONSISTENT YIELDS

- Solid stalks and roots for season-long standability
- Outstanding staygreen
- Great drydown and consistent test weight



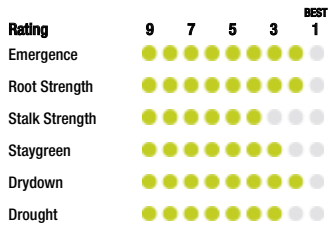
E111A3-5122 E-Z Refuge Brand

E113Z5

RM: 113

EXCELLENT EMERGENCE AND SOLID EARLY VIGOR

- Good disease tolerance
- Excellent drydown
- Performs well under a wide range of populations



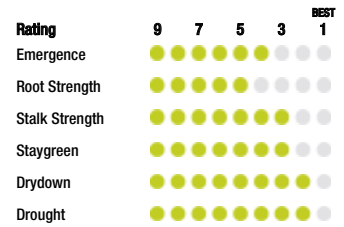
E113Z5-5122 E-Z Refuge Brand

E116K4

RM: 116

BROADLY ADAPTED PRODUCT WITH SUPERIOR YIELD POTENTIAL

- Well adapted to drought-prone soils
- Yields well in high-disease environments, despite average Gray Leaf Spot resistance
- Stable plant and ear height across rolling stress environments



E116K4-3000GT Brand

ENOGEN HYBRID AGRONOMIC MANAGEMENT

PRODUCT		AGRONOMIC MANAGEMENT AND PLACEMENT TRAITS														END-USE TRAITS		
Enogen Hybrid Series	Relative Maturity (RM)	Seeding Rate % Adjustment							Adaptation to Soil Types/Yield Environments							Starch	Protein	Oil
		- 20%	- 10%	0%	+ 10%	+ 20%	Root Strength	Stalk Strength	Continuous Corn	Drought Prone	High pH	Highly Productive	Variable	Poorly Drained				
E092T4	92	G	G	B	B	G	5	4	G	G	G	B	G	B	G	G	F	
E095D3	95	G	B	B	G	G	3	2	G	B	G	B	B	B	B	F	F	
E100H1	100	G	G	B	B	G	2	3	G	G	B	B	G	G	F	G	G	
E105T1	105	F	G	B	B	B	5	2	G	B	G	B	B	B	B	F	F	
E106Q6	106	G	G	B	B	G	3	3	B	B	F	B	B	G	B	F	F	
E108M2	108	B	B	B	G	F	3	3	G	G	G	B	B	F	B	F	G	
E109R3	109	F	G	B	B	B	5	2	G	B	F	B	B	B	B	G	F	
E109Y2	109	G	B	B	G	F	4	4	F	B	P	B	B	G	F	G	B	
E111A3	111	G	G	B	G	G	2	2	B	G	P	G	B	G	G	G	B	
E112J1	112	G	G	B	G	G	4	4	G	B	P	B	B	F	F	G	B	
E113Z5	113	G	G	B	B	B	2	4	G	G	G	B	B	B	G	G	F	
E116K4	116	F	G	B	B	G	5	3	G	B	P	B	B	F	F	F	G	
E118D8	118	F	G	G	B	B	4	3	B	G	G	B	G	G	G	B	F	

Rating Scale
 1 = Best
 9 = Worst
 - = Not available

Score Interpretation
B = Best
G = Good
F = Fair
P = Poor
 - = Not available

Drought
 Agrisure Artesian
 water-optimized hybrid.

Agronomy ratings are based on statistically analyzed results of studies conducted by Syngenta. Agronomy ratings are relative based on other hybrids within the same maturity group.

Corn Population Response Factors

This annual study aids farmers' understanding of how yield environment, grain price, seed cost and hybrid population response influence seeding rate recommendations. Information from this study is useful in determining the optimum planting population for each hybrid and field.

Influence of Yield Environment and Commodity Price on Optimum Seeding Rate

YIELD ENVIRONMENT (BU/A)	HIGHEST YIELDING SEEDING RATE (SEEDS/A)	OPTIMUM SEEDING RATE (SEEDS/A) BY COMMODITY PRICE (\$/BU) (SEED COST = \$200/80K UNIT)				
		\$3.00	\$3.50	\$4.00	\$4.50	\$5.00
280	40,200	36,600	37,100	37,500	37,700	38,000
240	38,500	34,100	34,700	35,100	35,500	35,800
200	36,400	31,000	31,700	32,300	32,700	33,100
160	33,800	26,900	27,700	28,400	29,000	29,400
120	29,700	20,900	21,900	22,700	23,400	23,900

General Interpretation of Hybrid Response to Management/Placement Situations and End-Use Traits

Seeding Rate % Adjustment: After determining the best corn seeding rate for your field (or zones within field) from the chart above, consider fine-tuning seeding rates with hybrid specific response knowledge. The seeding rate adjustment chart highlights different hybrids ability to be planted at seeding rates greater than or less than the normal recommended rate based on the economic response from agronomic trialing. Root and stalk strength ratings are also provided for additional knowledge of hybrid agronomic fit for planting at increased seeding rates.

Adaptation to Soil Types/Yield Environments: Ratings and soil type classifications are based on interpretation of studies conducted by Syngenta.

Continuous Corn Agronomic Characteristics: Favorable ratings in this column indicate hybrids containing multiple agronomic phenotypic traits deemed important

for fields where corn is being cultivated for consecutive years. Ratings are weighted based on the following individual hybrid characteristics: yield, emergence strength, early vigor, root and stalk strength, staygreen and foliar disease tolerance.

High pH Performance: Ratings represent an assessment of stand establishment, chlorosis severity and yield performance.

End-Use Traits: Ratings indicate end-use suitability based on the level of each grain quality characteristic.



SOYBEANS WITH PROVEN YIELD POTENTIAL AND INDUSTRY-LEADING CHOICE WEED CONTROL OPTIONS.

Golden Harvest Soybeans are recognized for top-end yield potential with the broadest choice of trait packages. Nearly 900 local trials help ensure that we know what works in your area. Backed with locally knowledgeable Seed Advisors you can trust to select and place the right products for your conditions, our soybean varieties offer:

PROVEN PERFORMANCE

- Industry-leading genetics in locally bred and tested varieties for proven yield
- 23 Top 3 Finishers and 73 Top 10 Finishers in 2019 FIRST Trials¹

STRONG DEFENSIVE AGRONOMICS

- Excellent tolerance to damaging pests and diseases such as Soybean Cyst Nematode, Sudden Death Syndrome, Iron Deficiency Chlorosis and Phytophthora root rot

¹Farmers' Independent Research of Seed Technologies (FIRST). No product recommendation by FIRST is implied. See firstseedtests.com for details.

BROADEST CHOICE OF HERBICIDE TOLERANCE TRAITS FOR SUPERIOR WEED CONTROL.



Enlist E3[®] Soybeans provide yield potential and agronomics and offer superior application flexibility and tank mix options to manage resistant weeds.



Roundup Ready 2 Xtend[®] Soybeans deliver a full portfolio of proven yield performance with defensive trait options.



LibertyLink[®] GT27[™] Soybeans are known for yield potential and agronomics and allow for in-season glufosinate and glyphosate applications.

SOYBEAN CHARACTERISTICS

PRODUCT			AGRONOMIC/PLANT CHARACTERISTICS*																	
Golden Harvest Soybean Brands	Herbicide Tolerant Trait	Relative Maturity (RM)	Emergence	Canopy/Plant Type	Plant Height	Standability	Narrow Row	Wide Row	Flower Color	Pubescence Color	Pod Color	Hilum Color	Green Stem Rating	Adaptation to Soil Types/ Yield Environments					Herbicide Responses	
														Drought Prone	High pH	Highly Productive	Variable	Poorly Drained	Sulfentrazone	Metribuzin
GH0936X	RR2X	0.9	3	M	MS	4	1	2	PUR	LTW	TN	BR	2	G	G	G	G	G	B	B
GH1414X <i>NEW</i>	RR2X	1.4	3	MT	MT	2	1	2	PUR	LTW	BR	BR	2	G	G	B	G	G	B	B
GH1638X <i>NEW</i>	RR2X	1.6	2	M	M	2	1	1	PUR	LTW	TN	BL	1	B	F	B	B	B	B	B
GH1763E3	E3	1.7	3	M	M	2	2	1	WH	LTW	TN	BL	-	G	F	G	G	G	B	B
GH1827LG	LL/GT27	1.8	3	M	M	2	1	2	PUR	LTW	TN	BL	-	G	F	F	G	G	B	G
GH1852X	RR2X	1.8	3	MB	MT	2	3	1	PUR	LTW	BR	BL	2	G	G	G	B	B	B	B
GH1915X	RR2X	1.9	3	M	MS	2	1	2	WH	LTW	BR	BL	4	F	F	B	G	G	B	G
GH1944E3	E3	1.9	3	MT	M	2	2	2	PUR	GR	TN	IMB	-	F	G	F	G	G	B	B
GH1955E3 <i>NEW</i>	E3	1.9	2	M	M	4	2	2	PUR	GR	BR	IMB	-	-	-	-	-	-	-	F
GH2011E3	E3	2.0	3	M	M	2	1	1	PUR	GR	BR	BF	2	G	F	G	B	G	G	B
GH2027LG	LL/GT27	2.0	3	M	MT	2	2	2	WH	LTW	BR	BR	2	G	F	G	B	G	B	B
GH2041X	RR2X	2.0	3	M	M	2	1	2	WH	LTW	BR	BL	3	G	G	B	B	F	B	B
GH2230X	RR2X	2.2	3	M	M	3	1	2	WH	LTW	BR	BL	3	F	F	G	F	B	B	B
GH2279E3	E3	2.2	3	T	M	2	1	3	PUR	GR	TN	BF	3	G	F	G	G	G	B	G
GH2329X <i>NEW</i>	RR2X	2.3	2	MB	M	4	3	1	WH	LTW	BR	BL	3	G	F	G	G	B	B	B
GH2420E3	E3	2.4	3	M	MS	2	1	2	WH	LTW	TN	BL	2	F	F	G	F	F	B	B
GH2427LG	LL/GT27	2.4	2	MB	M	3	3	1	PUR	LTW	BR	BL	3	B	G	B	B	G	B	B
GH2523E3	E3	2.5	3	MB	M	3	2	1	PUR	GR	TN	IMB	-	-	-	-	-	-	-	F
GH2552X <i>NEW</i>	RR2X	2.5	3	MB	MT	3	2	1	WH	LTW	BR	BL	2	G	G	G	B	B	B	B
GH2610E3	E3	2.6	2	M	M	2	1	2	PUR	GR	TN	BF	2	F	G	B	G	G	G	B
GH2727LG	LL/GT27	2.7	2	MB	M	3	2	1	PUR	LTW	TN	BR	2	B	F	B	B	B	G	G
GH2788X	RR2X	2.7	3	M	MS	2	1	1	PUR	GR	BR	IMB	3	G	P	B	G	B	F	G
GH2818E3	E3	2.8	2	M	M	3	1	1	WH	GR	TN	BF	2	B	F	B	B	G	G	B
GH2981X	RR2X	2.9	2	MB	M	3	1	1	PUR	LTW	BR	BL	2	G	G	B	B	G	G	B
GH3027LG	LL/GT27	3.0	3	M	M	3	1	2	WH	LTW	TN	BR	3	G	F	G	G	G	B	G
GH3042E3	E3	3.0	3	MB	M	3	2	1	PUR	GR	TN	IMB	3	G	F	G	G	G	B	B
GH3088X	RR2X	3.0	2	MB	M	3	1	1	PUR	LTW	BR	BL	3	G	G	B	G	B	B	B
GH3152E3S	E3/STS	3.1	2	MB	MT	3	1	1	PUR	GR	BR	BF	4	B	P	B	B	G	B	-
GH3195X	RR2X	3.1	3	M	M	3	1	2	WH	LTW	BR	BL	4	G	G	G	G	B	G	G
GH3347X <i>NEW</i>	RR2X	3.3	2	MT	T	3	1	1	PUR	LTW	TN	BL	2	B	G	B	B	G	B	B
GH3380E3 <i>NEW</i>	E3	3.3	3	MB	MT	3	2	1	PUR	LTW	BR	BR	-	-	-	-	-	-	-	G
GH3546X	RR2X	3.5	2	M	MT	3	1	1	PUR	LTW	BR	BL	2	G	G	B	B	B	B	B
GH3582E3	E3	3.5	2	M	M	2	1	1	PUR	GR	TN	IMB	2	B	P	B	G	G	B	B
GH3624E3	E3	3.6	2	M	M	2	3	2	WH	GR	BR	BF	2	F	F	B	G	F	F	B

* NOTE: E3 product descriptions and ratings are sourced from the variety's genetic supplier and may change as additional data are gathered.

Herbicide Tolerant Traits

RR2X = Roundup Ready 2 Xtend®
 RR2X/STS = Roundup Ready 2 Xtend® and STS®
 E3 = ENLIST E3®
 E3/STS = ENLIST E3® and STS®
 LL/GT27 = Liberty Link® and GT27™

Canopy/ Plant Type

T = Thin
 MT = Medium-Thin
 M = Medium
 MB = Medium-Bush
 B = Bush

Plant Height

S = Short
 MS = Medium-Short
 M = Medium
 MT = Medium-Tall
 T = Tall

Growth Habit

IND = Indeterminate
 DET = Determinate

Color Abbreviations

BF = Buff
 BL = Black
 BR = Brown
 GR = Gray
 IMB = Imperfect Black
 IMY = Imperfect Yellow
 LTW = Light Tawny
 PUR = Purple
 TN = Tan
 TW = Tawny
 WH = White
 YEL = Yellow

Adaptation to Soil Types/ Yield Environments

B = Best
 G = Good
 F = Fair
 P = Poor
 - = Not available

GRAIN QUALITY*		DISEASE/PEST*										PRODUCT
% Protein @13% mst.	% Oil @13% mst.	Phytophthora Root Rot		Soybean Cyst Nematode		Iron Deficiency Chlorosis (IDC)	Brown Stem Rot (BSR)	Sclerotinia White Mold (SWM)	Pod & Stem Blight (PSB)	Sudden Death Syndrome (SDS)	Frogeye Leaf Spot (FELS)	Golden Harvest Soybean Brands
		Gene Resistance	Field Tolerance	Gene Source	Race Resistances							
34.1	19.0	Rps1k, Rps3a	3	S	S	3	3	4	4	3	-	GH0936X
34.0	18.4	Rps1c	2	PI88788	MR3, MR14	3	3	3	2	3	-	GH1414X <i>NEW</i>
36.2	19.1	Rps1k, Rps3a	2	PI88788	MR3	4	-	4	4	4	6	GH1638X <i>NEW</i>
35.3	18.8	S	4	PI88788	MR3	4	-	3	5	2	5	GH1763E3
35.1	19.6	Rps1c	3	PI88788	MR3, MR14	4	-	3	5	3	3	GH1827LG
34.3	18.6	Rps1c	3	PI88788	R3, MR14	3	5	6	2	2	4	GH1852X
33.6	19.6	Rps1c	4	PI88788	R3, MR14	4	5	3	5	3	5	GH1915X
34.3	20.1	Rps1c	3	PI88788	MR3, MR14	3	-	3	3	5	5	GH1944E3
-	-	S	3	PI88788	R3, MR14	4	-	3	-	-	-	GH1955E3 <i>NEW</i>
36.0	19.0	Rps1c, Rps3a	2	PI88788	MR3	4	-	4	-	2	4	GH2011E3
-	-	S	4	PI88788	MR3, MR14	4	-	3	-	2	5	GH2027LG
35.0	19.2	Rps1c	4	PI88788	R3, MR14	3	5	3	3	2	5	GH2041X
34.1	19.5	Rps1c	4	PI88788	R3, MR14	4	5	3	3	3	5	GH2230X
34.4	20.9	Rps1k	4	PI88788	MR3	4	-	3	-	3	3	GH2279E3
34.9	19.0	Rps1c	3	PI89772	MR1, MR3	4	-	4	-	2	4	GH2329X <i>NEW</i>
34.7	19.1	S	5	PI88788	MR3	4	-	4	-	4	3	GH2420E3
36.1	19.7	S	4	PI88788	MR3	3	-	4	-	3	6	GH2427LG
-	-	Rps1k	3	PI88788	-	4	-	4	-	5	-	GH2523E3
35.0	19.5	Rps1c	3	PI88788	MR3	3	-	5	-	3	3	GH2552X <i>NEW</i>
34.0	21.0	Rps1k	4	Peking	-	3	-	4	-	3	4	GH2610E3
36.0	20.2	S	3	PI88788	MR3	4	-	4	-	4	3	GH2727LG
34.3	19.3	Rps1c	4	PI88788	R3, MR14	5	3	4	3	2	5	GH2788X
35.1	20.4	Rps1k	4	PI88788	MR3	4	-	3	-	3	3	GH2818E3
34.9	19.1	S	4	PI88788	R3, MR14	3	2	5	2	3	5	GH2981X
33.7	20.2	S	3	PI88788	MR3	4	-	5	-	5	2	GH3027LG
36.6	19.9	Rps1k	4	PI88788	R3, MR14	4	3	5	-	3	4	GH3042E3
33.7	19.9	Rps1c	4	PI88788	R3, MR14	3	3	4	-	2	2	GH3088X
36.5	19.8	Rps1c	5	PI88788	MR3	6	3	4	-	4	5	GH3152E3S
34.7	19.2	Rps1c	4	PI88788	R3, MR14	3	5	3	2	3	4	GH3195X
33.7	19.4	S	3	PI88788	R3	3	3	5	-	3	2	GH3347X <i>NEW</i>
-	-	S	3	PI88788	-	3	-	5	-	4	4	GH3380E3 <i>NEW</i>
33.3	19.2	S	3	PI88788	R3	3	4	4	-	2	2	GH3546X
35.0	19.9	S	3	PI88788	R3, MR14	5	4	-	-	3	5	GH3582E3
37.0	18.8	S	3	PI88788	MR3	4	4	-	-	4	2	GH3624E3

Resistance Rating System

Indicates when a variety is resistant to a specific disease or pest. For Soybean Cyst Nematode (SCN) resistance, the nematode races the variety is resistant against are specified, when available. For Phytophthora, the gene conveying the resistance is listed.

Phytophthora Gene Resistance

The following genes confer resistance to the listed races of Phytophthora:
 Rps1a = Resistant to races 1, 2, 10, 11, 13-18, 24, 26, 27, 31, 32, 36, 38
 Rps1c = Resistant to races 1-3, 6-11, 13, 15, 17, 21, 23, 24, 26, 28-30, 32, 34, 36, 38, 44
 Rps1k = Resistant to races 1-11, 13-15, 17, 18, 21-24, 26, 36-38, 44
 Rps3a = Resistant to races 1-5, 8, 9, 11, 13, 14, 16, 18, 23, 25, 28, 29, 31-35, 39, 44, 45
 S = Susceptible (no gene-specific tolerance)

Phytophthora Field Tolerance

Usually not as complete as race-specific resistance, but it offers general protection. Resistance is not expressed in early stages of plant development. Numerical rating scale of 1-9; 1 = Best.

Soybean Cyst Nematode (SCN)

R = Resistant
 MR = Moderately Resistant
 S = Susceptible
 1, 3 and/or 14 = Specific race of soybean cyst nematode

Disease/Pest Ratings

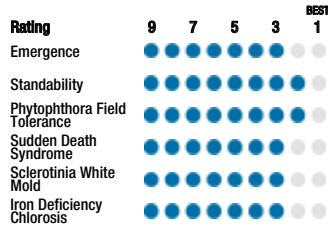
1 = Best
 9 = Worst
 - = Not available

GH1414X BRAND

NEW // RM: 1.4

OUTSTANDING DISEASE PACKAGE WITH SUPERIOR PERFORMANCE ACROSS ALL YIELD LEVELS

- Exceptional top-end yield with agronomics to support
- Rps1c gene with excellent field tolerance to Phytophthora
- Very good Sclerotinia White Mold tolerance and standability

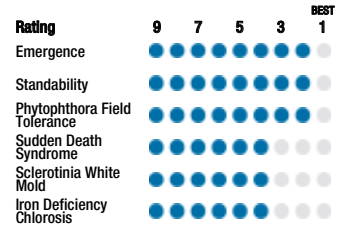


GH1638X BRAND

NEW // RM: 1.6

EXCEPTIONAL PERFORMANCE ACROSS GEOGRAPHIES AND YIELD LEVELS IN PROVEN GENETICS

- Outstanding emergence and early season vigor
- Rps1k/3a Phytophthora gene stack with great field tolerance
- Excellent standability for the highly productive acre

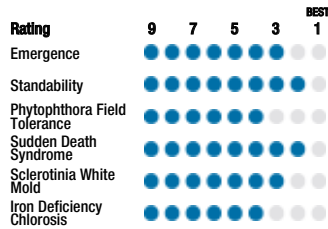


GH1763E3 BRAND

RM: 1.7

COMBINES STRONG YIELD WITH AGRONOMICS

- Excellent Sudden Death Syndrome tolerance
- Great standability with strong Sclerotinia White Mold tolerance for the highly productive acre
- Stable performance across environments

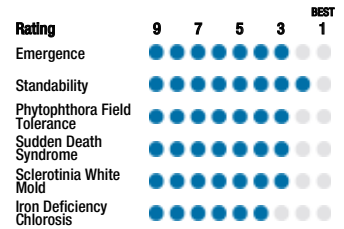


GH1827LG BRAND

RM: 1.8

SOLID AGRONOMICS AND DISEASE PACKAGE TO MAXIMIZE YIELD

- Very good tolerance to SDS
- Excellent standability coupled with strong Sclerotinia White Mold tolerance
- Consistent performance across soil types

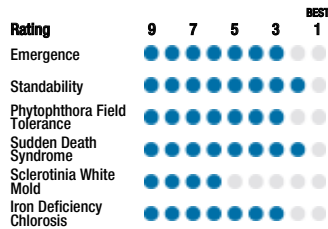


GH1852X BRAND

RM: 1.8

BEST-IN-CLASS PERFORMANCE WITH EXCEPTIONAL STRESS TOLERANCE

- Outstanding SDS tolerance with strong Iron Deficiency Chlorosis tolerance
- Rps1c gene with solid emergence across soils
- Great choice for poorly drained soils

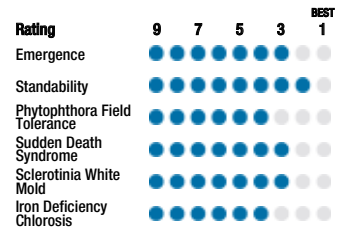


GH1915X BRAND

RM: 1.9

TOP PERFORMER WITH SEASON-LONG STANDABILITY

- Compact stature suited for narrow rows and highly productive fields
- Solid SDS tolerance allows early planting
- Good Iron Deficiency Chlorosis tolerance

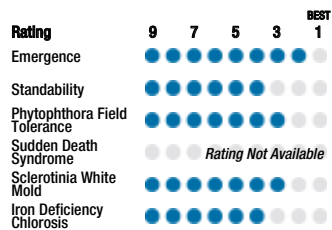


GH1955E3 BRAND

NEW // RM: 1.9

YIELD IMPROVEMENT ON THE ENLIST TRAIT PLATFORM

- Strong tolerance to Sclerotinia White Mold
- Very good field tolerance to Phytophthora Root Rot
- SCN resistance with good tolerance to Iron Deficiency Chlorosis

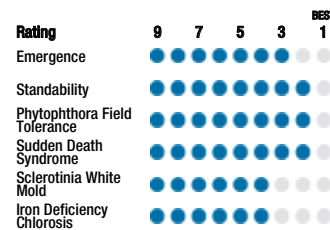


GH2011E3 BRAND

RM: 2.0

GREAT DISEASE PACKAGE WITH STRONG PERFORMANCE ACROSS A WIDE GEOGRAPHY

- Excellent SDS tolerance
- Rps1c/3a stack with excellent field tolerance to Phytophthora Root Rot
- Great row spacing flexibility

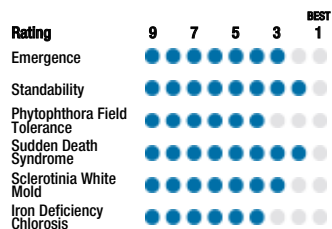


GH2027LG BRAND

RM: 2.0

STRONG AGRONOMICS WITH TOP-END YIELD POTENTIAL

- Very strong SDS tolerance
- Solid Sclerotinia White Mold tolerance
- Excellent standability for the highly productive acre

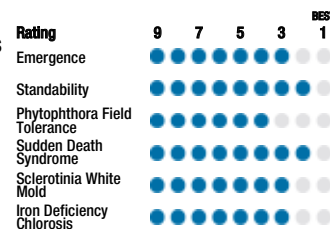


GH2041X BRAND

RM: 2.0

CAPTIVATING YIELD POTENTIAL AND STRIKING SDS TOLERANCE

- Superb SDS tolerance for an obvious advantage you can see
- Strong Sclerotinia White Mold tolerance
- Great standability throughout the season



“GOLDEN HARVEST IS FOCUSED ON PROVIDING THE BEST POSSIBLE CUSTOMER EXPERIENCE. WE ARE CONTINUALLY INVESTING IN INCREASED OFFERINGS, TECHNOLOGY AND OUR ENTIRE SERVICE TEAM TO ENSURE THAT WE WILL DELIVER ON THAT PROMISE NOW AND IN THE FUTURE.”



Clayton Becker

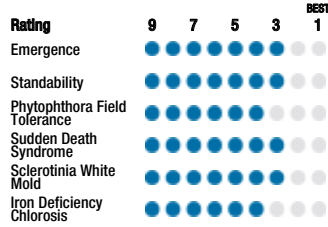
Head, Golden Harvest West Commercial Unit

GH2230X BRAND

RM: 2.2

TOP YIELD POTENTIAL ON PRODUCTIVE ACRES

- Proven Sclerotinia White Mold and solid SDS tolerance
- Provides very good harvest standability
- Genetic resistance to SCN and Rps1c for Phytophthora Root Rot

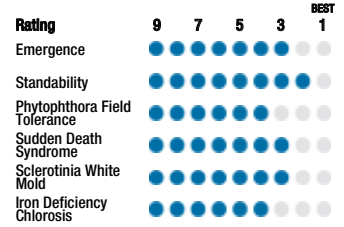


GH2279E3 BRAND

RM: 2.2

PRIMED TO HANDLE SCLEROTINIA WHITE MOLD

- Ideal plant type for narrow rows and high fertility
- Focus placement on productive or highly managed acres
- Good Iron Deficiency Chlorosis tolerance

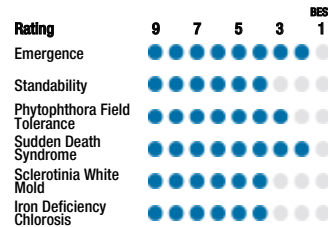


GH2329X BRAND

NEW // RM: 2.3

STRONG TOP-END YIELD KICK AND RELIABLE GENETICS

- Exciting yield across MG 2 and flexible to move North or South
- Superb SDS tolerance and PI89772 source of SCN resistance
- Strong Phytophthora field tolerance and Rps1c gene

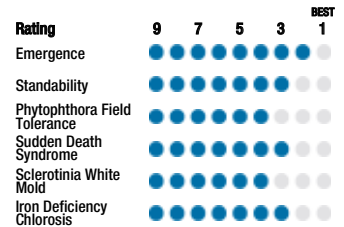


GH2427LG BRAND

RM: 2.4

VERY STRONG PLAYER ACROSS MG 2 ACRES

- SDS tolerance that drives consistently high yields
- Performs well in wide rows
- Very good Iron Deficiency Chlorosis tolerance

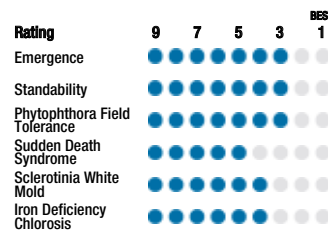


GH2523E3 BRAND

NEW // RM: 2.5

OFFENSIVE LEADER WITH WESTERN ADAPTATION

- Strong top-end yield potential
- Moves North and South of zone well
- Very good standability and attractive plant type

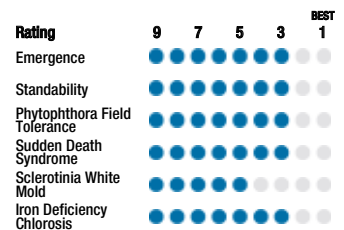


GH2552X BRAND

RM: 2.5

STRONG YIELDS WITH A COMPREHENSIVE DISEASE PACKAGE

- Dependable SDS tolerance
- Widely adapted across soils including high pH acres
- Very good Phytophthora tolerance with Rps1c gene

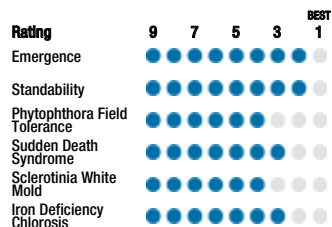


GH2610E3 BRAND

RM: 2.6

DEPENDABLE SDS TOLERANCE WITH PEKING SOURCE OF SCN RESISTANCE

- Best performance in zone and North
- Recommended for Iron Deficiency Chlorosis acres
- Rps1k gene with good Phytophthora field tolerance

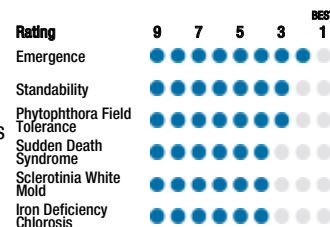


GH2727LG BRAND

RM: 2.7

PERFORMS IN BOTH HIGH-YIELDING AND STRESS ENVIRONMENTS

- Maintains plant height very well
- Above-average SDS tolerance
- Satisfactory Iron Deficiency Chlorosis tolerance

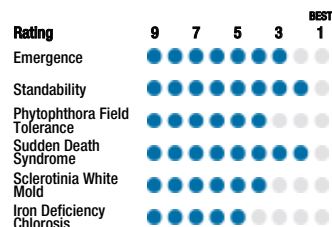


GH2788X BRAND

RM: 2.7

DOMINANT PERFORMANCE ON ALMOST EVERY ACRE

- Distinguishing SDS tolerance for early planting
- Superb standability helps farmers glide through harvest
- Exceptional performance on highly productive acres

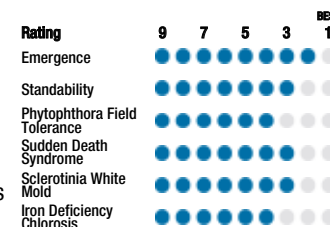


GH2818E3 BRAND

RM: 2.8

HIGH-YIELDING. GO ALMOST ANYWHERE GENETICS

- Broadly adapted with flexibility to move North or South
- Brings together SDS, SCN and Sclerotinia White Mold protection
- Easy-to-manage plant type supports all row spacings



“GOLDEN HARVEST DELIVERS GENETICS, AGRONOMY & SERVICE. OUR SERVICE 365 IS A PROMISE TO DELIVER LOCAL TIMELY INSIGHTS TO GROWERS THROUGHOUT THE GROWING SEASON AND BEYOND. WE WANT TO BE YOUR PARTNER IN THE FIELD.”



David Schlake

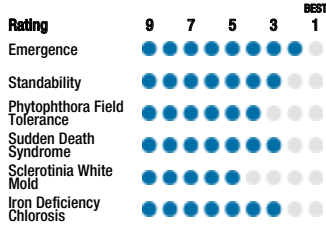
Golden Harvest West Agronomy Manager

GH2981X BRAND

RM: 2.9

STABLE YIELD POTENTIAL AND SEASON-LONG STANDABILITY

- Must-have for both dryland and irrigated farmers
- Solid SDS tolerance provides farmers a strong early plant option
- Very good Iron Deficiency Chlorosis tolerance for Iowa and Nebraska soils

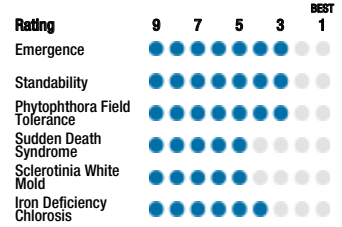


GH3027LG BRAND

RM: 3.0

GREAT CHOICE FOR HIGHLY PRODUCTIVE ACRES

- Solid standability for the entire season
- Versatile plant type works across environments
- Excellent Frog Eye Leaf Spot tolerance

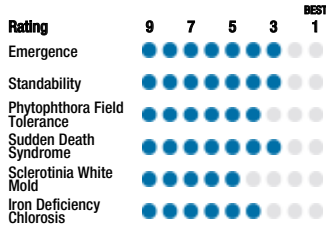


GH3042E3 BRAND

RM: 3.0

BROADLY ADAPTED, HIGH-PERFORMING PRODUCT

- Excels under higher management practices
- Proven SDS tolerance allows for early planting
- Dependable standability

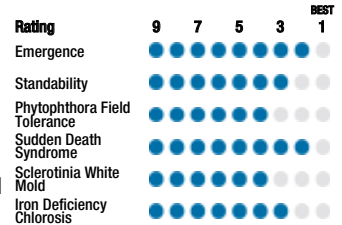


GH3088X BRAND

RM: 3.0

STRONG PERFORMER WITH EXCELLENT TOP-END YIELD POTENTIAL

- Great defensive package anchored by outstanding SDS tolerance
- Solid standability in an attractive plant type
- Rps1c gene with above average field tolerance to Phytophthora Root Rot

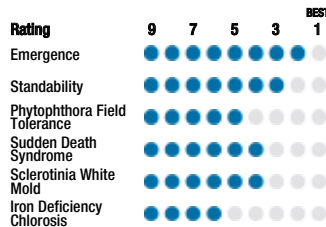


GH3152E3S BRAND

RM: 3.1

DELIVERS THE BUSHELS AND HANDLES STRESS

- Great performance in high-yielding environments
- Maintains height, canopy, and branching under drought stress
- Outstanding emergence provides an early vegetative advantage

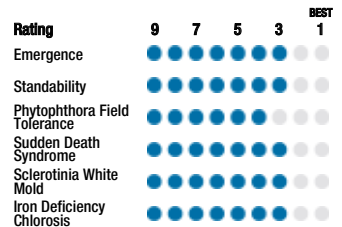


GH3195X BRAND

RM: 3.1

NICE COMBINATION OF OFFENSE AND DEFENSE

- Proven across varying soils; gives confidence for your farm
- Flexible across row spacing
- Versatility to take it north or south

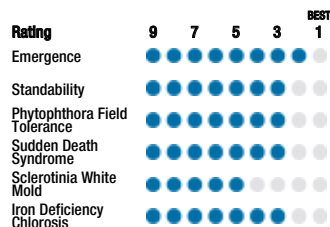


GH3347X BRAND

NEW // RM: 3.3

HIGH-YIELDING GENETICS WITH PROVEN SDS TOLERANCE

- Performs across yield environments with exciting top-end yield potential
- Carries Frogeye Leaf Spot resistance gene
- Strong field tolerance to Phytophthora Root Rot

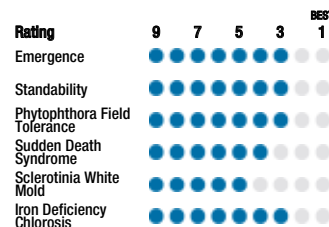


GH3380E3 BRAND

NEW // RM: 3.3

TOP-END YIELD WITH ROBUST AGRONOMICS

- Plant type handles stress well
- Dependable Phytophthora Root Rot field tolerance
- Consistent performance across environments

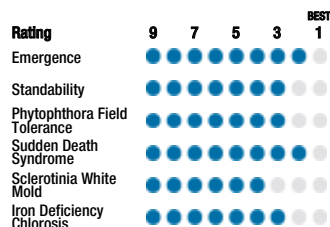


GH3546X BRAND

RM: 3.5

OFFENSIVE AND DEFENSIVE LEADER

- Great performance across yield levels
- Target fields with a history of Frogeye Leaf Spot or SDS
- Proven performance across varying soil types

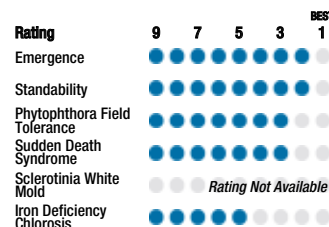


GH3582E3 BRAND

RM: 3.5

SUPERIOR PERFORMANCE ACROSS GEOGRAPHIES

- Very strong yields across multiple years
- Reliable SDS tolerance
- Exceptional Southern Stem Canker protection



“E-LUMINATE PROVIDES A STRUCTURED DIGITAL EXPERIENCE FOR GOLDEN HARVEST CUSTOMERS. YOUR SEED ADVISOR WILL PROVIDE A GAME PLAN FOR EVERY FIELD USING DATA, SCIENCE, AND LOCAL AGRONOMY THAT IS TAILORED TO YOUR SPECIFIC NEEDS.”



Justin Welch

Head, Digital US Seeds

HELPING CROPS REALIZE FULL POTENTIAL

Your Seed Advisor is extremely knowledgeable on the entire Syngenta crop protection portfolio and can recommend the right products for your conditions. From herbicides and fungicides to insecticides and seed treatments, these products are designed to increase plant health, improve crop yield and performance in both corn and soybeans.

GOLDEN HARVEST PREFERRED SEED TREATMENTS

Delivers customized soybean seed protection with improved disease control and handling properties:

- Contains an enhanced rate of Apron XL® seed treatment fungicide for superior protection of seed- and soilborne diseases such as Pythium and early season Phytophthora
- With unique polymers that bind active ingredients to the seed coat, the seed treatment decreases dust-off and improves seed flow through treating and planting equipment
- Powered by CruiserMaxx® Vibrance® with an option to add Saltro® fungicide seed treatment, the leading protection against Sudden Death Syndrome (SDS) and Soybean Cyst Nematode (SCN).

POWERED BY CRUISERMAXX VIBRANCE

- Delivers early season, broad-spectrum insect and disease from day one
- Delivers faster speed to canopy and more robust, vigorous plants for improved overall performance through the Cruiser® Vigor Effect
- Optimizes root health, nutrient uptake, water usage and stress tolerance for better emergence through the unique Rooting Power of Vibrance seed treatment fungicide

ENHANCED WITH SALTRO®

- 4+ bushels per acre (bu/A) yield improvement over ILEVO® under SDS pressure
- Higher intrinsic activity than older technology to protect against the cause of SDS
- Robust activity against soybean cyst, root knot, reniform, lesion and lance nematodes
- Superior protection from SDS without signs of plant stress, including phytotoxicity, stunting, reduced plant stands, susceptibility to pests or weather, and reduced plant growth above and below ground

¹U.S. trials with SDS pressure; 2015-2019. Trial locations: AR, IL, IA, KS, KY, MI, MN, MO, TN, WI. Trials with significantly different disease incidence/severity rating between Check and SDS treatment.

CruiserMaxx Vibrance Beans is an on-seed application of CruiserMaxx Vibrance alone or with Apron XL.

SEED CARE

 **CruiserMaxx® Vibrance®**

CruiserMaxx Vibrance seed treatment provides powerful protection for corn and soybeans against early-season insects and seedborne and soilborne diseases, promoting optimal root health, stress tolerance and plant vigor for better emergence.

 **Avicta® Complete**
Corn 500

Avicta® Complete Corn 500 seed treatment offers triple protection against early-season nematodes, insects and disease.

 **Saltro®**

Saltro® fungicide seed treatment provides consistently superior SDS protection without the plant stress. Delivering upgraded SDS protection, robust nematode activity and less early-season stress, Saltro helps soybeans reach their full genetic yield potential.

HERBICIDES

 **Acuron®**

Acuron® corn herbicide helps unlock your corn's full yield potential by controlling tough weeds other products miss.

 **Tavium®**

Tavium® Plus VaporGrip® Technology herbicide features two sites of action for contact and long-lasting residual control of key broadleaf and grass weeds in Roundup Ready 2 Xtend® Soybeans.

FUNGICIDES

 **Miravis® Neo**

Miravis® Neo fungicide provides plant-health benefits and long-lasting protection against corn leaf blight (NCLB), gray leaf spot (GLS), tar spot and ear rot in corn. In soybeans, this product delivers broad spectrum control of devastating diseases like brown spot and frogeye leaf spot, while also controlling white mold.

INSECTICIDES

 **Force® 6.5G**

Force® 6.5G insecticide granular insecticide controls corn rootworm and other soil-dwelling insects in corn with a lower dust formulation that offers excellent application flexibility.

 **Besiege®**

Besiege® insecticide provides long-lasting protection against lepidopteran pests along with broad-spectrum control of other damaging insects.



DATA INSIGHTS DRIVE INFORMED DECISION-MAKING.

Our exclusive E-Luminate® digital agronomy platform contains over 15 years of environmental and trial data. That powerhouse of information enables your Golden Harvest Seed Advisor to more precisely place products for maximum performance and gain insights that inform next year's crop plan. Its capabilities include:



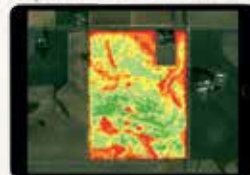
GaMePLaN

- Final field x field plan
- Rate assignments
- Proposals
- Customized product information



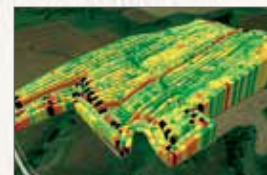
RangeFinder

- Variable rate scripts
- Auto-generated based on Golden Harvest trialing
- RangeFinder Population testing blocks



E-Luminate Mobile

- Disease-fungicide application
- Pollination timing
- Start yield expectations
- In-field Decision Hub



Decision Hub

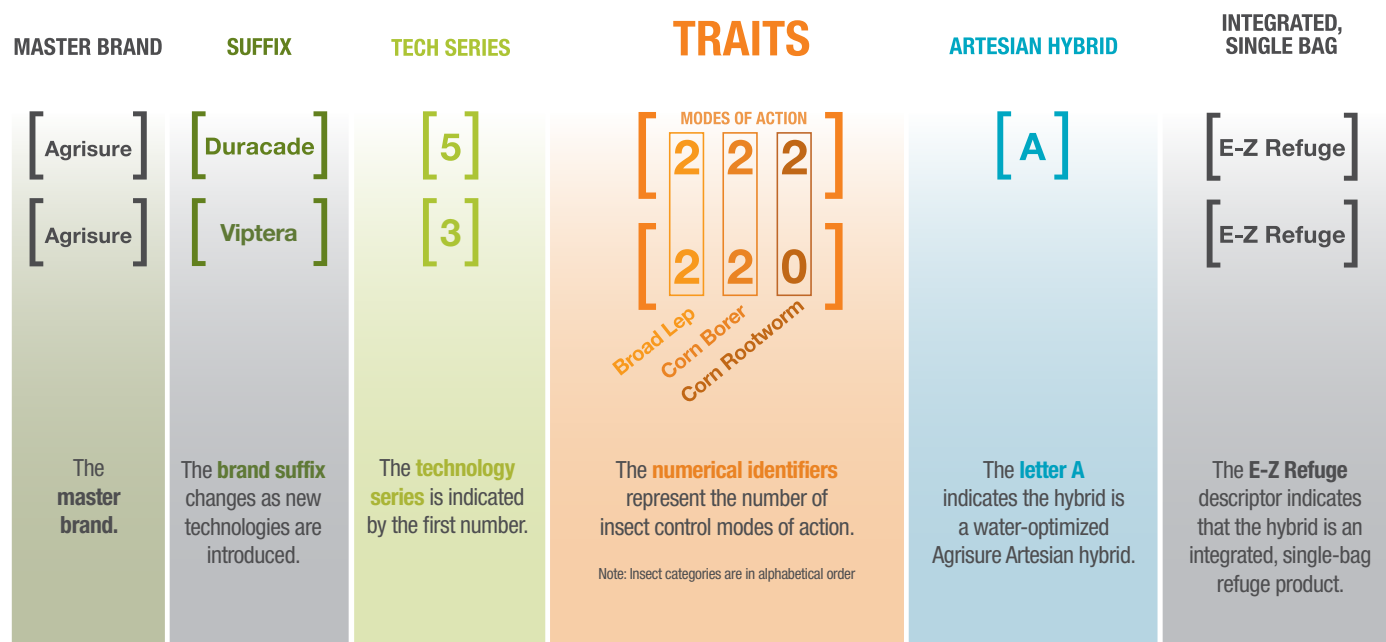
- Weather data
- Predictive analytics
- Seasonal review
- Monitor data importation–yield, as applied

UNDERSTANDING THE AGRISURE TRAITS PORTFOLIO.

TO HELP FARMERS UNDERSTAND THE COMPETITIVE ADVANTAGE OF AGRISURE TRAITS, A STREAMLINED NAMING SYSTEM WAS DEVELOPED. THE NAMING SYSTEM CREATES CONSISTENCY FOR DELIVERY OF NEW TECHNOLOGY AND TRAIT-STACKING OPPORTUNITIES.



On each seed bag tag, farmers will see four numbers. How it works:



Note: The naming system does not apply to Agrisure 3000GT.

HYBRID & VARIETY KEYS

GOLDEN HARVEST CORN

This two-digit number is the same as the last two digits of relative maturity.

The next letter and two-digit number are designated to uniquely identify each genetic family.

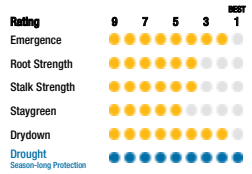
RM: Specific relative maturity for this hybrid series.

Hybrid Series: All hybrids within this series were developed from the same base genetics.

G10L16 Artesian **RM: 110**

INDUSTRY-LEADING YIELD PERFORMANCE ACROSS ALL ACRES

- Leading drought tolerance powered by Agrisure Artesian Technology
- Moderate plant structure for residue management
- Excellent drydown for an early harvest option



G10L16-5222A E-Z Refuge Brand
G10L16-3330A E-Z Refuge Brand
G10L16-3220A E-Z Refuge Brand **NEW**
G10L16-A Brand (Conv.) **NEW**

Agrisure Artesian

"A" indicates the presence of Agrisure Artesian technology for water optimization in the hybrid.

E-Z Refuge: Products include integrated in-bag 5% refuge.

The dash separates the genetic and trait portions.

The trait designator aligns with the Agrisure traits nomenclature system.

NEW: Indicates hybrid series or hybrid trait versions new for 2021.

Trait versions available in this hybrid series.

ENOGEN CORN

Relative maturity number

Randomly designated letter and number(s)

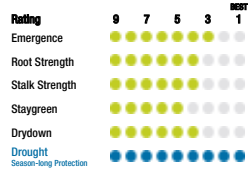
RM: Specific relative maturity for this hybrid series.

Hybrid Series: All hybrids within this series were developed from the same base genetics.

E109Y2 Artesian **RM: 109**

EXCITING GENETICS WITH AGRISURE ARTESIAN TECHNOLOGY

- Maximizes yield when it rains; increases yield when it doesn't
- Population flexibility across all environments
- Top-end yield potential with stability when conditions are tough



E109Y2-5122A E-Z Refuge Brand

Agrisure Artesian

"A" indicates the presence of Agrisure Artesian technology for water optimization in the hybrid.

E-Z Refuge: Products include integrated in-bag 5% refuge.

The dash separates the genetic and trait portions.

The trait designator aligns with the Agrisure traits nomenclature system.

Trait versions available in this hybrid series.

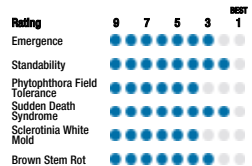
GOLDEN HARVEST SOYBEANS

Soybean Brand

GH2788X BRAND **RM: 2.7**

DOMINANT PERFORMANCE ON ALMOST EVERY ACRE

- Distinguishing SDS tolerance for early planting
- Superb standability helps growers glide through harvest
- Exceptional performance on highly productive acres



RM: 2.7: Specific relative maturity for this variety.

Herbicide tolerance and other traits

Ratings are based on field observations collected by Syngenta from multiple locations over multiple years. They represent comparisons with company products only.

PROTECT AND PRESERVE.

A STRONG STEWARDSHIP PROGRAM IS ESSENTIAL FOR PROTECTING AND PRESERVING THE LONG-TERM VALUE OF INSECT-PROTECTED TRAIT TECHNOLOGY.

Golden Harvest provides responsible agriculture programs and information regarding the safe handling and storage of product.

STEWARDSHIP REQUIREMENTS











Read and understand the stewardship requirements found in the Syngenta Stewardship Guide, including applicable refuge requirements when planting insect-protected traits as set forth in the Syngenta Seeds, LLC Stewardship Agreement that you sign. To sign an agreement or view recommended planting configurations, please visit SyngentaStewardship.com or contact the Stewardship team: **1-877-476-2676**. In addition, Enogen corn must be grown as an identity preserved crop in compliance with the Enogen stewardship program. By opening and using a bag of seed, you are reaffirming your obligation to comply with those stewardship requirements.

BEST MANAGEMENT PRACTICES

The agricultural industry has learned that, in addition to planting a refuge, a sound Integrated Pest Management (IPM) strategy is needed to prevent Corn Rootworm (CRW) resistance. For more information on how you can implement Best Management Practices (BMPs) on your farm, including crop and trait rotation, refer to the industry CRW BMPs found on the NCGA website at NCGA.com/CornRootworm or SyngentaStewardship.com.

CORN REFUGE REQUIREMENTS

It is important to recognize that different hybrid/trait packages may have different Insect Resistance Management (IRM) requirements. On-farm mixing of any seed is not an approved method to comply with stewardship requirements.

TRAIT STACK*	MINIMUM REFUGE REQUIREMENT CORN-GROWING REGION	MINIMUM REFUGE REQUIREMENT COTTON-GROWING REGION
 Agrisure 3000GT  Agrisure Artesian 3011A	20%	50%
 Agrisure Viptera 3110  Agrisure Viptera 3111	20%	
 Agrisure Viptera 3220 E-Z Refuge  Agrisure Viptera 3330 E-Z Refuge  Agrisure 3120 E-Z Refuge  Agrisure 3122 E-Z Refuge  Agrisure Duracade 5122 E-Z Refuge  Agrisure Duracade 5222 E-Z Refuge	E-Z Refuge—no additional refuge required	20% supplemental refuge

Refuge size is calculated by applying the appropriate percentage (e.g., 20%, 50%) to the TOTAL CORN ACRES.

Calculator available to help farmers plan how to meet the minimum refuge requirements for each Bt corn product on their farm. Download at www.irmcalculator.com

*These products may be offered as Agrisure Artesian® corn hybrids, which convert water to grain more efficiently. Artesian® corn hybrids are designated by an 'A' at the end of the trait stack name.

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.

Syngenta hereby disclaims any liability to Third Party websites referenced herein.



GRAIN MARKETING

Farmers are encouraged to consult the Bio Trade Status website for the approval status of commercially available hybrids: BioTradeStatus.com. Talk to your grain handler prior to delivering crop so that it can be handled and marketed appropriately. Please contact your local seed representative with any questions.

CORN CROP PLANNING

Field Name: _____

Field Name: _____

Hybrid: _____

Hybrid: _____

Population: _____

Population: _____

Management Considerations: _____

Management Considerations: _____

SOYBEAN CROP PLANNING

Field Name: _____

Field Name: _____

Variety: _____

Variety: _____

Population: _____

Population: _____

Management Considerations: _____

Management Considerations: _____

CORN CROP PLANNING

Field Name: _____

Hybrid: _____

Population: _____

Management Considerations: _____

Field Name: _____

Hybrid: _____

Population: _____

Management Considerations: _____

SOYBEAN CROP PLANNING

Field Name: _____

Variety: _____

Population: _____

Management Considerations: _____

Field Name: _____

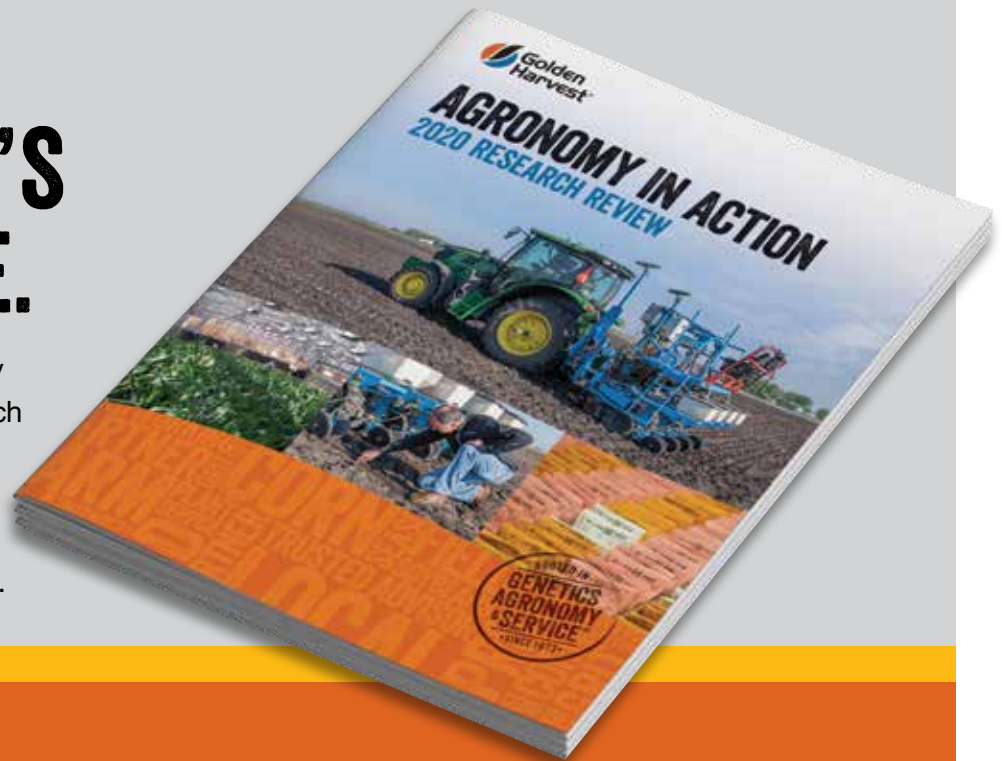
Variety: _____

Population: _____

Management Considerations: _____

TAP INTO OUR TEAM'S EXPERTISE.

The Golden Harvest agronomy team compiled over 30 research studies into the Agronomy In Action 2020 Research Review to help you navigate the upcoming growing season.



Get your copy at
goldenharvestseeds.com/p/agronomy-guide/

Product performance assumes disease presence.

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