

SOYBEANS
E-LUMINATE
2021
SEED GUIDE
TRUSTED
LOCAL
PARTNERS

WET
TRUSTED
DETERMINED
HARD WORKING
FARMERS
GENES
TRAITS
GENETICS
HYBRIDIZATION
ARTISE



SOUTH DAKOTA | SOUTHWEST MINNESOTA



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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®

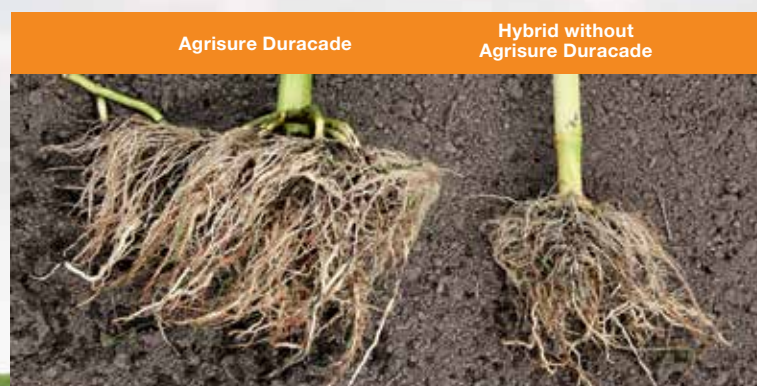
- Features a unique mode of action for strong control of corn rootworm
- Protects root systems for better nutrient and water uptake, helps ensure fuller leaves for increased photosynthesis and maximum grain fill, and results in strong plants that stand all season long
- Provides a new trait rotational 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/Below Ground Insect Protection	Above Ground Insect Protection	No Insect Protection	No Insect Protection
Golden Harvest Hybrid Series			 	 		 	Conventional
	G85Z56	5222		3220			
G84J92			3120A			GTA	Conv.-A
G88F37			3120A-LL				
G89A09	5122		3120				
G91V51					3110A		
G90Y04	5222A		3220A			GTA/LL	
G94P48	5122A-LL						
G95D32			3220			GT/LL	
G95M41	5122						
G96R61 <i>NEW</i>	5222 <i>NEW</i>						
G97N86	5222		3220				
G99E68 <i>NEW</i>	5122 <i>NEW</i>						
G00H12	5122					GT/LL <i>NEW</i>	
G01P52		3122A				GTA/LL	
G02K39	5122		3120				
G02W74				3000GT			Conv.
G03R40	5222						
G04G36 <i>NEW</i>				3111A <i>NEW</i>			
G04S19		3122					
G05K08	5122A						
G06K93						GT/LL	
G06Q68	5222		3220				
G07F23				3111		GT	Conv.
G07V88				3000GT			
G08D29	5122A		3120A				
G09Y24	5222A		3220A				
G10L16	5222A		3330A, 3220A <i>NEW</i>				Conv.-A <i>NEW</i>
G10S30	5222						
G11B63			3120A			GTA/LL	
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.

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	Anthraxnose Stalk Rot	Fusarium Crown Rot	Common Rust	Golden Harvest Hybrid Series
85	1220	2140	3	2	4	3	2	3	3	3	3	-	3	4	P	S-U	SF	M	R	-	3	4	-	3	-	G85Z56
86	1200	2140	3	3	3	2	1	4	3	4	2	1	3	5	M	S-U	SF	M	R	-	3	4	2	2	-	G84J92
88	1205	2280	3	3	3	4	1	4	4	2	3	3	3	5	M	U	SF	L	R	-	3	3	3	3	-	G88F37
89	1215	2280	2	2	3	3	3	4	2	3	3	1	3	5	M	U	SF	L	R	-	4	4	3	3	-	G89A09
91	1240	2300	3	3	5	4	1	2	4	3	3	6	3	4	M	U	SF	M	R	-	3	4	-	5	-	G91V51
92	1265	2325	2	3	4	2	1	3	3	3	2	3	2	2	F	P	SF	M	R	-	3	4	3	3	-	G90Y04
94	1260	2400	3	2	2	3	1	2	3	2	3	-	3	2	F	U	SF	L	R	-	3	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	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	4	-	G95M41
96	1275	2400	2	2	3	2	2	2	3	3	2	-	2	2	F	U	SF	M	R	-	2	4	3	2	-	G96R61 <i>NEW</i>
97	1275	2400	2	2	4	2	3	3	3	3	3	5	3	2	M	U	SD	L	R	4	4	4	-	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	3	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	-	4	-	G00H12
101	1335	2460	2	2	4	2	1	3	2	4	3	1	2	3	P	U	SF	M	Pi	4	5	3	3	2	-	G01P52
102	1305	2475	3	3	2	2	2	2	1	3	5	-	5	5	M	U	F	M	R	3	4	3	-	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	4	3	-	G02W74
103	1335	2445	2	3	2	2	3	2	3	4	2	-	4	4	M	U	SD	M	R	4	5	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	5	-	G04G36 <i>NEW</i>
104	1385	2570	4	3	4	3	3	3	4	3	5	-	2	2	M	S-U	SF	M	Pi	4	4	3	2	4	-	G04S19
105	1310	2555	3	4	4	3	1	3	6	3	4	-	5	6	P	U	SD	M	R	4	3	4	4	5	-	G05K08
106	1385	2530	3	3	3	3	2	4	4	4	3	-	3	3	M	S-U	F	M	R	5	4	3	4	5	4	G06K93
106	1355	2560	3	3	3	3	2	3	4	3	5	-	4	5	M	U	SF	M	R	5	2	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	-	3	5	G07F23
107	1375	2570	3	3	5	3	2	3	5	2	5	-	3	3	F	U	SF	M	Pi	5	3	3	4	5	4	G07V88
108	1405	2560	2	3	3	3	1	2	5	4	4	-	4	5	M	S-U	SF	M	Pi	4	2	3	-	4	4	G08D29
109	1420	2570	3	3	4	4	1	3	5	4	4	-	5	3	M	S-U	SF	M	R	5	2	4	-	5	-	G09Y24
110	1395	2620	2	3	4	4	1	4	5	2	4	-	5	6	M	S-U	SF	M	R	4	6	3	-	4	7	G10L16
110	1405	2570	3	3	4	3	4	3	5	4	4	-	5	4	M	S-U	F	M	Pi	6	2	4	-	4	-	G10S30
111	1425	2570	4	4	3	4	1	3	2	3	3	-	3	3	F	U	F	L	Pi	4	4	3	-	6	-	G11B63
111	1430	2590	4	4	2	2	1	4	2	3	5	-	5	5	M	P	SF	M	R	4	3	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	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	3	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	-	2	-	G12U17
113	1420	2640	3	4	3	2	2	3	3	3	4	-	3	3	M	U	SD	M	R	3	4	3	-	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	-	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	-	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	3	G14R38

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

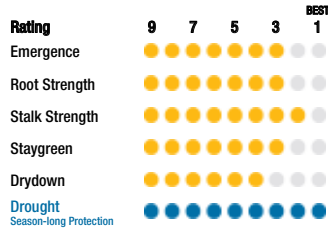
Drought
 Agrisure Artesian
 water-optimized hybrid.

G84J92 Artesian

RM: 86

ELITE GENETICS WITH AGRISURE ARTESIAN TECHNOLOGY

- Maximizes yield when it rains; increases yield when it doesn't
- Strong stalks and roots for season-long standability
- Superior drought tolerance with heavy test weight



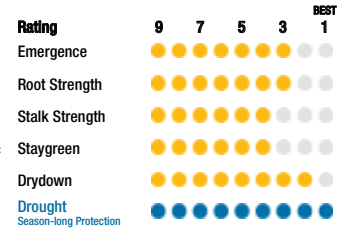
G84J92-3120A E-Z Refuge Brand
 G84J92-GTA Brand
 G84J92-A Brand (Conv.)
 E086J9-5122A E-Z Refuge Brand

G88F37 Artesian

RM: 88

WESTERN-ADAPTED HYBRID WITH EXCELLENT DROUGHT TOLERANCE

- Maximizes yield when it rains; increases yield when it doesn't
- Good options for variable soils
- Performs well under a wide range of populations



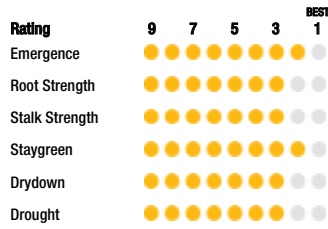
G88F37-3120A-LL E-Z Refuge Brand

G89A09

RM: 89

EXCITING YIELD WITH BROAD ADAPTATION

- Excellent emergence and seedling vigor for a fast start
- Moderate stature with strong roots and stalks
- Superb staygreen and late-season plant health



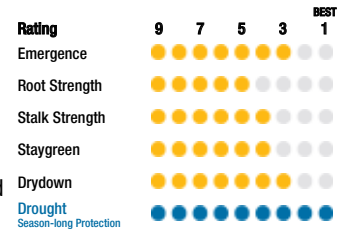
G89A09-5122 E-Z Refuge Brand
 G89A09-3120 E-Z Refuge Brand

G91V51 Artesian

RM: 91

DOMINATING PERFORMANCE WITH AGRISURE ARTESIAN TECHNOLOGY

- Maximizes yield when it rains; increases yield when it doesn't
- Strong emergence and seedling vigor for a fast start
- Broad adaptation across all soils and yield environments



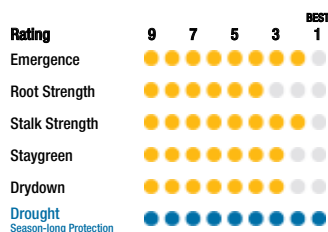
G91V51-3110A Brand

G90Y04 Artesian

RM: 92

EXCITING YIELD LEVELS PAIRED WITH AGRISURE ARTESIAN TECHNOLOGY

- Maximizes yield when it rains; increases yield when it doesn't
- Superb stalk strength for ease of harvest
- Very good staygreen and drydown



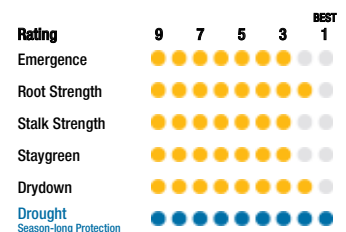
G90Y04-5222A E-Z Refuge Brand
 G90Y04-3220A E-Z Refuge Brand
 G90Y04-GTA/LL Brand

G94P48 Artesian

RM: 94

AGRISURE ARTESIAN TECHNOLOGY PROVIDES CONSISTENT YIELD POTENTIAL

- Maximizes yield when it rains; increases yield when it doesn't
- Excellent stalks and roots for season-long standability
- Superb drydown for a flexible harvest schedule



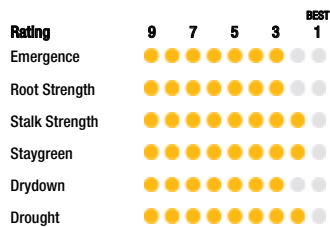
G94P48-5122A-LL E-Z Refuge Brand

G95D32

RM: 95

DIVERSE GENETICS WITH EXCITING YIELD PERFORMANCE

- Broad adaptation across yield environments
- Superb stalks for season-long standability
- Solid agronomics for continuous corn acres



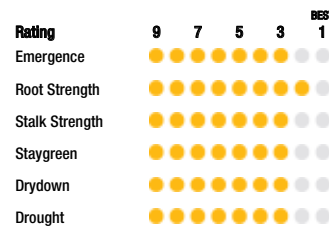
G95D32-3220 E-Z Refuge Brand
 G95D32-GT/LL Brand
 E095D3-5122 E-Z Refuge Brand

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



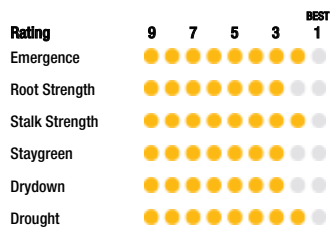
G95M41-5122 E-Z Refuge Brand

G96R61

NEW // RM: 96

OUTSTANDING ROOTS AND STALKS FOR SEASON-LONG STANDABILITY

- Exceptional emergence for a fast start in all environments
- Broad adaptation across soils
- Outstanding grain quality with heavy test weight



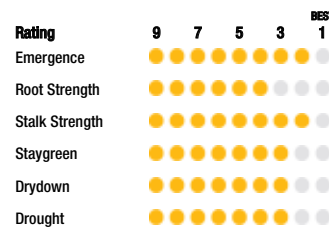
G96R61-5222 E-Z Refuge Brand **NEW**

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



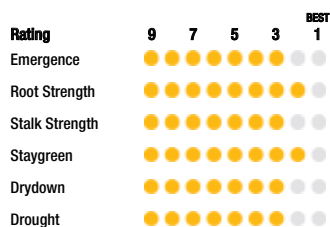
G97N86-5222 E-Z Refuge Brand
 G97N86-3220 E-Z Refuge Brand

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



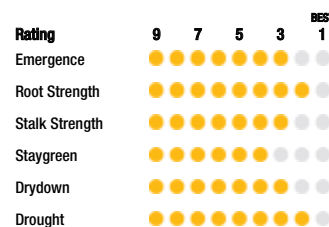
G99E68-5122 E-Z Refuge Brand **NEW**

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



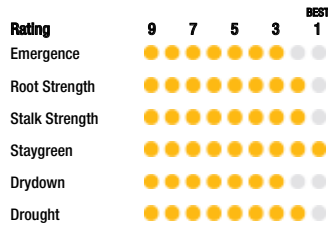
G00H12-5122 E-Z Refuge Brand
 G00H12-GT/LL Brand **NEW**
 E100H1-5122 E-Z Refuge Brand

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



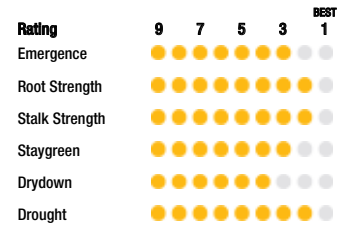
G02K39-5122 E-Z Refuge Brand
G02K39-3120 E-Z Refuge Brand

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



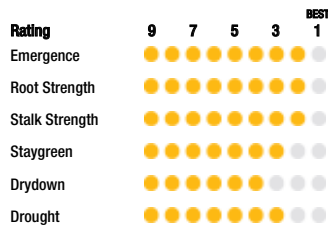
G02W74-3000GT Brand
G02W74 Brand (Conv.)

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



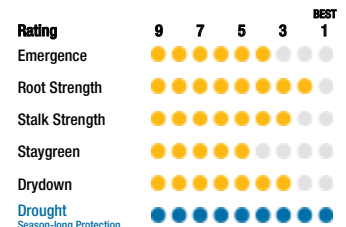
G03R40-5222 E-Z Refuge Brand

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



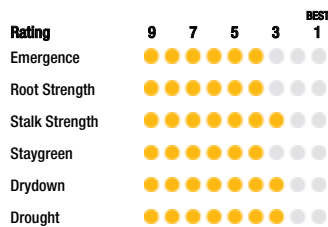
G04G36-3111A Brand NEW

G04S19

RM: 104

EXCITING DUAL-PURPOSE HYBRID

- Adapted to most soil types
- Excellent late-season stalks
- Performs well under a wide range of populations



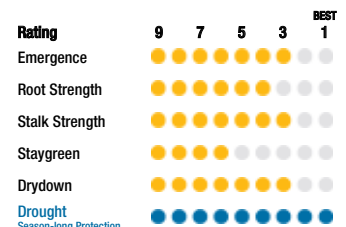
G04S19-3122 E-Z Refuge Brand

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



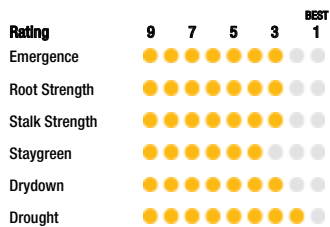
G05K08-5122A E-Z Refuge Brand

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



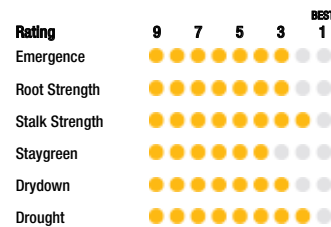
G06Q68-5222 E-Z Refuge Brand
 G06Q68-3220 E-Z Refuge Brand
 E106Q6-5122 E-Z Refuge Brand

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



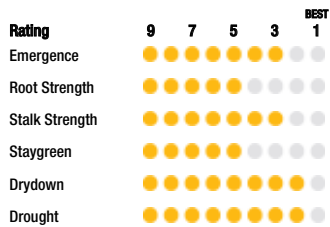
G07F23-3111 Brand
 G07F23-GT Brand
 G07F23 Brand (Conv.)

G07V88

RM: 107

ELITE GENETICS WITH SOLID AGRONOMICS FOR SUPERIOR YIELD PERFORMANCE

- Broad adaptability with excellent drought tolerance
- Good late-season plant intactness aids harvestability
- Ear flex makes this hybrid a good choice for all management practices



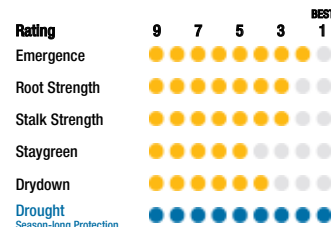
G07V88-3000GT Brand

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



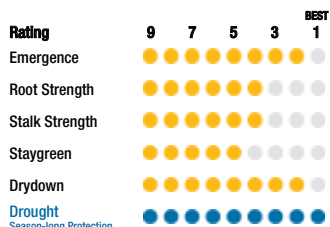
G08D29-5122A E-Z Refuge Brand
 G08D29-3120A E-Z Refuge Brand

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



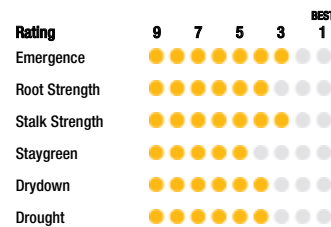
G10L16-5222A E-Z Refuge Brand
 G10L16-3330A E-Z Refuge Brand
 G10L16-3220A E-Z Refuge Brand **NEW**
 G10L16-A Brand (Conv.) **NEW**

G10S30

RM: 110

TOP-END YIELD FOR WESTERN IRRIGATED ENVIRONMENTS

- Very good ear flex for seeding rate flexibility
- Highly responsive to fungicide applications
- Best suited to medium to coarse soil types



G10S30-5222 E-Z Refuge Brand

CORN AGRONOMIC MANAGEMENT

PRODUCT		AGRONOMIC MANAGEMENT AND PLACEMENT TRAITS													END-USE TRAITS			
Golden Harvest Hybrid Series	Relative Maturity (RM)	Seeding Rate % Adjustment							Adaptation to Soil Types/ Yield Environments						Starch	Protein	Oil	Feed to Gain
		-20%	-10%	0%	+10%	+20%	Root Strength	Stalk Strength	Corn-on-Corn	Drought Prone	High pH	Highly Productive	Variable	Poorly Drained				
G85Z56	85	G	G	B	G	G	4	3	B	B	F	B	B	B	G	G	F	B
G84J92	86	G	G	B	B	G	3	2	G	B	F	B	B	B	B	F	F	G
G88F37	88	G	G	B	B	G	3	4	F	B	F	B	B	F	F	B	F	B
G89A09	89	G	G	B	G	G	3	3	B	F	F	B	G	G	B	G	F	B
G91V51	91	G	G	B	G	G	5	4	F	B	P	B	B	G	G	F	G	B
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
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
G01P52	101	F	G	B	B	B	4	2	G	B	G	B	B	G	G	B	F	B
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
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
G04S19	104	B	B	B	G	F	4	3	G	G	P	G	B	F	B	F	F	B
G05K08	105	G	B	B	G	G	4	3	G	B	G	B	B	G	G	G	B	B
G06K93	106	F	G	B	B	G	3	3	G	B	G	F	B	F	B	F	B	G
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
G07V88	107	G	B	B	G	F	5	3	G	B	F	B	B	P	B	G	B	-
G08D29	108	G	G	B	G	G	3	3	B	B	F	B	B	G	F	G	B	G
G09Y24	109	G	B	B	G	F	4	4	F	B	P	B	B	G	F	G	B	F
G10L16	110	G	G	B	G	G	4	4	B	B	F	B	G	G	B	F	F	G
G10S30	110	B	B	B	G	F	4	3	F	G	G	B	G	G	F	F	B	G
G11B63	111	G	B	B	G	G	3	4	G	B	G	G	F	P	B	G	F	B
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

Rating Scale
 1 = B
 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 B 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 B corn seeding rate for your field (or zones within field) from the chart located at the bottom of the previous page, 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 B 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 B 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.

Golden Harvest Hybrid Series	PRODUCT	AGRONOMIC CHARACTERISTICS							DISEASE		AGRONOMIC RESEARCH RATINGS													
		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)	Feed Effect On*						
																		NEL (Mcal/lb)	Milk (lbs/Ton)*	Milk (lbs/A)*	Beef (lbs/Ton)*	Beef (lbs/A)*		
G85Z56	85	3	4	2	3	3	4	-	4	B	G	F	G	F	-	B	-	B	B	B	B			
G84J92	86	3	3	1	3	3	5	-	4	B	G	G	G	B	B	F	G	F	G	F	G			
G88F37	88	3	3	1	4	3	5	-	3	G	B	G	F	B	-	G	-	G	F	G	F			
G89A09	89	2	3	3	2	3	5	-	4	B	G	F	G	F	-	G	-	G	G	G	G			
G91V51	91	3	5	1	4	3	4	-	4	B	G	G	G	G	-	G	-	B	B	B	B			
G90Y04	92	2	4	1	3	2	2	-	4	B	B	F	G	G	B	G	G	G	B	G	B			
G94P48	94	3	2	1	3	3	2	-	3	B	G	G	G	F	-	B	-	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			
G95M41	95	3	2	3	3	3	4	-	5	F	F	G	F	B	-	F	-	F	F	F	F			
G97N86	97	2	4	3	3	3	2	4	4	B	B	G	F	G	B	G	G	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			
G01P52	101	2	4	1	2	2	3	4	3	G	G	B	G	G	F	G	G	G	G	G	G			
G02K39	102	3	2	2	1	5	5	3	3	B	G	G	G	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			
G03R40	103	2	2	3	3	4	4	4	3	F	B	P	F	P	B	F	F	F	F	F	F			
G04S19	104	4	4	3	4	2	2	4	3	B	G	G	G	G	G	G	B	G	B	G	B			
G05K08	105	3	4	1	6	5	6	4	4	G	B	B	G	B	B	G	G	G	G	G	G			
G06K93	106	3	3	2	4	3	3	5	3	G	F	G	G	B	B	B	G	B	G	B	G			
G06Q68	106	3	3	2	4	4	5	5	4	F	G	G	G	B	B	G	B	G	F	G	F			
G07F23	107	3	3	2	4	5	5	3	4	B	G	G	G	G	G	B	B	B	B	B	B			
G07V88	107	3	5	2	5	3	3	5	3	G	F	G	G	B	G	G	B	B	B	B	G			
G08D29	108	2	3	1	5	4	5	4	3	G	G	F	G	G	B	G	G	G	F	G	F			
G09Y24	109	3	4	1	5	5	3	5	4	G	G	G	B	G	G	B	B	B	G	B	G			
G10L16	110	2	4	1	5	5	6	4	3	F	G	B	G	B	B	G	G	G	F	G	F			
G10S30	110	3	4	4	5	5	4	6	4	F	G	F	G	G	B	G	G	G	F	G	F			
G11B63	111	4	3	1	2	3	3	4	3	B	G	G	G	G	F	F	G	F	B	F	B			
G11F16	111	4	2	1	2	5	5	4	5	F	G	G	G	B	F	F	G	G	F	G	F			
G12U17	112	3	4	4	2	3	3	4	5	G	G	B	B	B	F	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			
G13Z50	113	2	2	3	3	4	4	4	3	F	F	G	G	G	F	G	G	G	F	G	F			
G14R38	114	3	2	3	4	3	2	5	4	G	F	B	G	B	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 = B
- 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 DAIRY AND BEEF

- Enogen Feed corn hybrids in dairy operations can increase feed efficiency by an average of 5%. Results released by researchers at a leading university confirmed a 4% increase in ECM feed efficiency (6% uncorrected)¹ – with no negative effect on milk quality parameters or rumen fermentation.
- 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 Study, 2014.
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	Anthraxnose Stalk Rot	Fusarium Crown Rot	Common Rust
Enogen Hybrid Series	Above/Below Ground Insect Protection E-Z Refuge AgrisureDuracade Above/Below Ground Insect Protection Agrisure3000GT																										
E086J9	5122A	86	1200	2140	3	3	3	2	1	4	3	4	2	1	3	5	M	S-U	SF	M	R	-	3	4	2	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	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	-	4	-
E101P5	3011A	101	1335	2460	2	2	4	2	1	3	2	4	3	1	2	3	P	U	SF	M	Pi	4	5	3	3	2	-
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	2	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	-
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	-	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	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	-	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	-	4	3
E111C6	5122A	111	1425	2570	4	4	3	4	1	3	2	3	3	-	3	3	F	U	F	L	Pi	4	4	3	-	6	-

Rating Scale
1 = B
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.

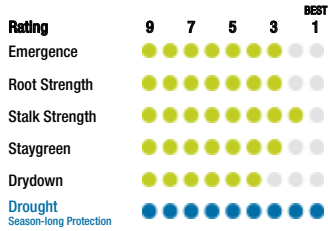


E086J9 Artesian

RM: 86

ELITE GENETICS WITH AGRISURE ARTESIAN TECHNOLOGY

- Maximizes yield when it rains; increases yield when it doesn't
- Strong stalks and roots for season-long standability
- Superior drought tolerance with heavy test weight



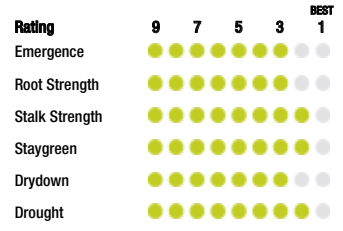
E086J9-5122A E-Z Refuge Brand

E095D3

RM: 95

DIVERSE GENETICS WITH EXCITING YIELD PERFORMANCE

- Broad adaptation across yield environments
- Superb stalks for season-long standability
- Solid agronomics for continuous corn acres



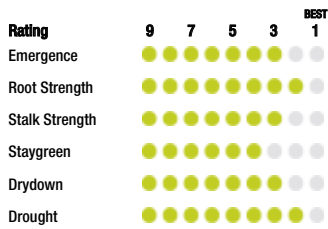
E095D3-5122 E-Z Refuge Brand

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



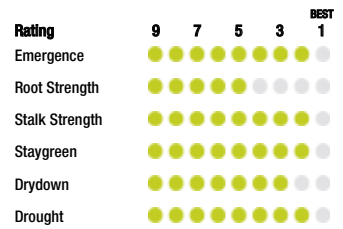
E100H1-5122 E-Z Refuge Brand

E105T1

RM: 105

EXCELLENT TOP-END YIELD WITH STRONG AGRONOMICS TO MAXIMIZE GROWER PRODUCTIVITY

- Adapted to continuous corn acres
- Fantastic late-season plant health and stalk strength allow movement south of zone
- Good drought tolerance allows for flexible placement on soil types



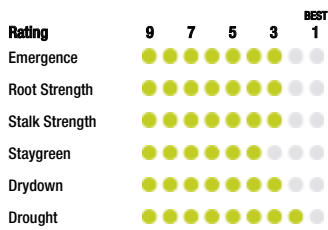
E105T1-3000GT Brand

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



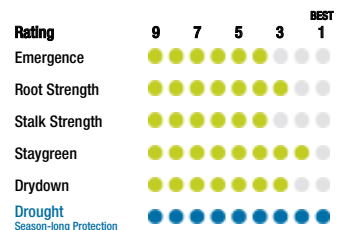
E106Q6-5122 E-Z Refuge Brand

E111C6 Artesian

RM: 111

PROVIDES EXCELLENT EAR FLEX AND AGRISURE ARTESIAN TECHNOLOGY

- Maximizes yield when it rains; increases yield when it doesn't
- Consistent yield performance across environments
- Dependable stalk and root strength



E111C6-5122A E-Z Refuge 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	Corn-on-Corn	Drought Prone	High pH	Highly Productive	Variable				Poorly Drained	
E086J9	86	G	G	B	B	G	3	2	G	B	F	B	B	B	B	B	F	F
E095D3	95	G	B	B	G	G	3	2	G	B	G	B	B	B	B	B	F	F
E100H1	100	G	G	B	B	G	2	3	G	G	B	B	G	G	F	G	G	
E101P5	101	F	G	B	B	B	4	2	G	B	G	B	B	G	G	B	F	
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	
E111C6	111	G	B	B	G	G	3	4	G	B	G	G	F	P	B	G	F	

Rating Scale
 1 = B
 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 B 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*																	
Soybean Brands	Herbicide Tolerant Trait	Relative Maturity (RM)	Emergence	Canopy/Plant Type	Plant Height	Stability	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	Ply Drained	Sulfentrazone	Metribuzin
GH0543X	RR2X	0.5	2	M	MS	2	1	3	PUR	LTW	TN	BR	2	G	F	B	G	G	B	B
GH0715E3	E3	0.7	3	M	MS	4	2	1	PUR	GR	BR	BF	-	B	G	B	G	G	B	B
GH0749X	RR2X	0.7	3	M	M	2	2	2	PUR	LTW	TN	BL	2	F	G	B	G	B	B	B
GH0913E3 <i>NEW</i>	E3	0.9	3	M	M	3	1	1	WH	GR	TN	BF	-	-	-	-	-	-	-	G
GH0936X	RR2X	0.9	3	M	MS	4	1	2	PUR	LTW	TN	BR	2	G	G	G	G	G	B	B
GH1012E3 <i>NEW</i>	E3	1.0	2	MB	M	4	2	2	PUR	GR	BR	GR	-	-	-	-	-	-	-	G
GH1225X <i>NEW</i>	RR2X	1.2	3	M	M	3	1	2	PUR	LTW	TN	BL	-	G	G	G	G	G	B	B
GH1227LG <i>NEW</i>	LL/GT27	1.2	3	MT	M	2	1	2	PUR	LTW	TN	BR	-	-	-	-	-	-	-	-
S12-R3	RR2Y	1.2	3	M	M	2	3	2	PUR	LTW	TN	BL	3	G	B	B	G	G	B	B
GH1317X	RR2X	1.3	3	M	M	2	1	2	PUR	LTW	BR	BL	3	G	F	B	G	B	G	G
GH1362E3	E3	1.3	3	MB	M	3	2	1	PUR	GR	TN	IMB	-	G	G	B	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
GH1557E3 <i>NEW</i>	E3	1.5	3	M	MT	3	1	1	PUR	GR	BR	IMB	-	-	-	-	-	-	-	G
GH1619X	RR2X	1.6	3	M	M	3	1	3	WH	LTW	TN	BR	3	F	B	G	G	G	G	B
GH1627LG	LL/GT27	1.6	3	M	M	2	1	2	PUR	LTW	TN	BL	-	G	F	G	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 <i>NEW</i>	E3	2.5	3	MB	M	3	2	1	PUR	GR	TN	IMB	-	-	-	-	-	-	-	F
GH2552X	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
GH3088X	RR2X	3.0	2	MB	M	3	1	1	PUR	LTW	BR	BL	3	G	G	B	G	B	B	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

GENRR2Y = Genuity® Roundup Ready 2 Yield®
 RR2X = Roundup Ready 2 Xtend®
 E3 = ENLIST E3®
 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)	Sudden Death Syndrome (SDS)	Frogeye Leaf Spot (FELS)	Soybean Brands
		Gene Resistance	Field Tolerance	Gene Source	Race Resistances						
33.2	18.8	Rps1c, Rps3a	3	S	S	4	3	3	-	-	GH0543X
34.5	18.9	Rps3a	3	PI88788	MR3	3	3	5	-	-	GH0715E3
36.1	18.7	Rps1c	3	PI88788	MR3	3	5	3	-	-	GH0749X
-	-	S	3	PI88788	-	4	-	4	-	-	GH0913E3 <i>NEW</i>
34.1	19.0	Rps1k, Rps3a	3	S	S	3	3	4	3	-	GH0936X
-	-	S	3	PI88788	R3, MR14	3	-	4	-	-	GH1012E3 <i>NEW</i>
37.7	18.6	Rps3a	3	PI88788	MR3	3	-	3	2	-	GH1225X <i>NEW</i>
-	-	Rps1k	4	PI88788	-	4	-	2	5	-	GH1227LG <i>NEW</i>
36.2	18.6	S	4	PI88788	R3, MR14	2	2	2	3	-	S12-R3
33.9	19.0	Rps1c, Rps3a	2	S	S	4	5	3	6	-	GH1317X
34.9	18.6	Rps1c	4	PI88788	MR3, MR14	3	3	5	4	-	GH1362E3
34.0	18.4	Rps1c	2	PI88788	MR3, MR14	3	3	3	3	-	GH1414X <i>NEW</i>
-	-	Rps1k	3	PI88788	-	4	-	3	-	-	GH1557E3 <i>NEW</i>
32.6	20.2	S	5	PI88788	R3, MR14	2	5	4	4	5	GH1619X
33.3	19.4	S	3	PI88788	MR3	4	-	3	4	5	GH1627LG
36.2	19.1	Rps1k, Rps3a	2	PI88788	MR3	4	-	4	4	6	GH1638X <i>NEW</i>
35.3	18.8	S	4	PI88788	MR3	4	-	3	2	5	GH1763E3
35.1	19.6	Rps1c	3	PI88788	MR3, MR14	4	-	3	3	3	GH1827LG
34.3	18.6	Rps1c	3	PI88788	R3, MR14	3	5	6	2	4	GH1852X
33.6	19.6	Rps1c	4	PI88788	R3, MR14	4	5	3	3	5	GH1915X
34.3	20.1	Rps1c	3	PI88788	MR3, MR14	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	2	5	GH2041X
34.1	19.5	Rps1c	4	PI88788	R3, MR14	4	5	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 <i>NEW</i>
35.0	19.5	Rps1c	3	PI88788	MR3	3	-	5	3	3	GH2552X
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	2	5	GH2788X
35.1	20.4	Rps1k	4	PI88788	MR3	4	-	3	3	3	GH2818E3
33.7	19.9	Rps1c	4	PI88788	R3, MR14	3	3	4	2	2	GH3088X

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

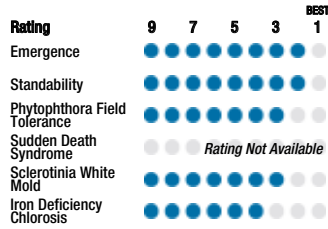
- 1 = Best
- 9 = Worst
- = Not available

GH0543X BRAND

RM: 0.5

EXPECT BIG YIELDS WITH GREAT HARVESTABILITY

- Unique Rps1c/3a stack protects against Phytophthora Root Rot
- Strong tolerance to Sclerotinia White Mold
- Broadly adapted across soil types

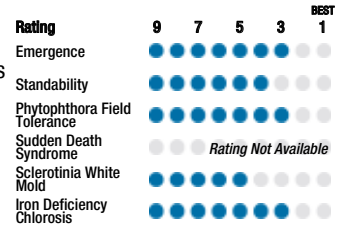


GH0715E3 BRAND

RM: 0.7

STRONG YIELD POTENTIAL FOR MATURITY

- SCN protection with very good tolerance to Iron Deficiency Chlorosis
- Rps3a with solid field tolerance to Phytophthora Root Rot
- Good drought stress tolerance

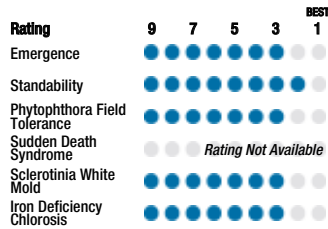


GH0749X BRAND

RM: 0.7

SOLID AGRONOMICS WITH SCN RESISTANCE

- Strong tolerance to Iron Deficiency Chlorosis
- Stands well with dependable Sclerotinia White Mold tolerance
- Rps1c gene with solid field tolerance to Phytophthora Root Rot

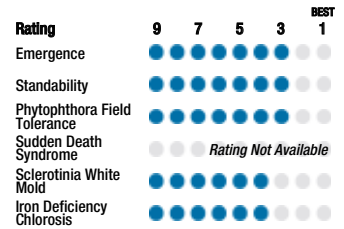


GH0913E3 BRAND

NEW // RM: 0.9

GREAT COMBINATION OF OFFENSE AND DEFENSE

- Moderate-sized plant with very good standability
- Consistent yields across environments
- Above-average Sclerotinia White Mold tolerance

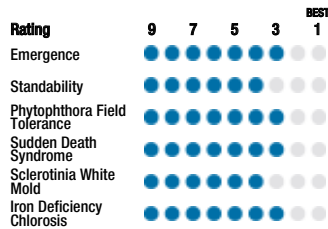


GH0936X BRAND

RM: 0.9

STRONG YIELD POTENTIAL WITH AN RPS1K/3A GENE STACK FOR PHYTOPHTHORA

- Good choice for high pH soils
- Well rounded agronomic package allows broad placement
- Excels in Western environments

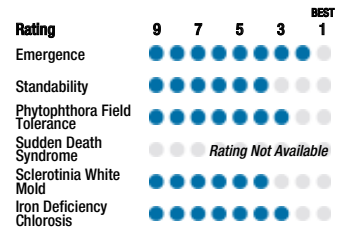


GH1012E3 BRAND

NEW // RM: 1.0

BIG YIELD POTENTIAL IN AN ENLIST TRAIT PACKAGE

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

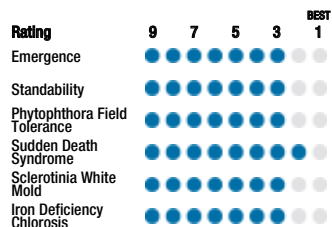


GH1225X BRAND

NEW // RM: 1.2

AGRONOMIC LEADER WITH STRONG YIELD POTENTIAL

- Very good field tolerance to Phytophthora Root Rot with the Rps3a gene
- Solid choice for the SCN/IDC acre
- Dependable standability and moderate plant type work well on acres prone to Sclerotinia White Mold

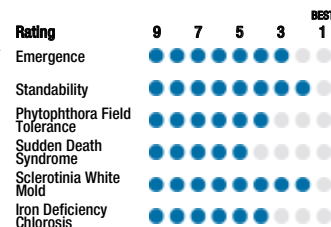


GH1227LG BRAND

NEW // RM: 1.2

NEW LL/GT27 GENETICS WITH BIG YIELDS

- Excellent standability and Sclerotinia White Mold tolerance
- Good tolerance to Iron Deficiency Chlorosis
- Rps1k gene with sound field tolerance to Phytophthora Root Rot

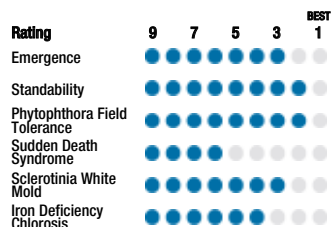


GH1317X BRAND

RM: 1.3

STRONG YIELD PERFORMANCE IN WESTERN GEOGRAPHIES

- Handles poorly drained soils well with an excellent Phytophthora package
- Great standability for the highly productive acre
- Very good Sclerotinia White Mold tolerance

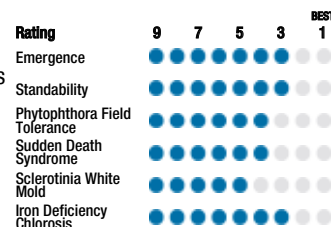


GH1362E3 BRAND

RM: 1.3

STRONG PERFORMANCE ACROSS A WIDE GEOGRAPHY

- SCN protection with very good tolerance to Iron Deficiency Chlorosis
- Rps1c gene with good Phytophthora Root Rot field tolerance
- Medium-bush canopy helps close the row

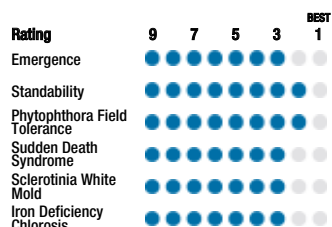


GH1414X BRAND

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

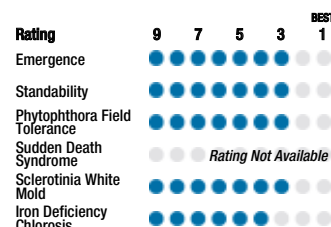


GH1557E3 BRAND

NEW // RM: 1.5

NEW AND IMPROVED ENLIST GENETICS

- Rps1k with strong field tolerance to Phytophthora Root Rot
- Solid standability and tolerance to Sclerotinia White Mold
- Well-suited for high yielding acres

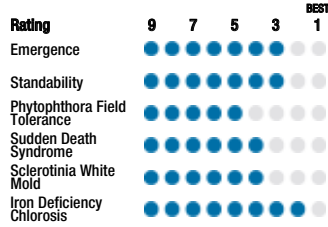


GH1619X BRAND

RM: 1.6

PROVEN GENETICS WITH SCN RESISTANCE

- Very strong Iron Deficiency Chlorosis tolerance
- Exceptional performance on high pH soils
- Great choice for medium- to fine-textured soils

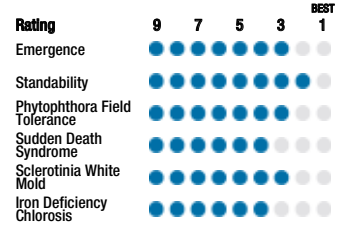


GH1627LG BRAND

RM: 1.6

GOOD YIELD POTENTIAL WITH BEST PERFORMANCE IN ZONE

- Strong Phytophthora Root Rot field tolerance
- Solid Sclerotinia White Mold tolerance
- Excellent standability for the highly productive acre

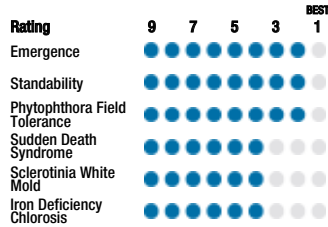


GH1638X BRAND

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

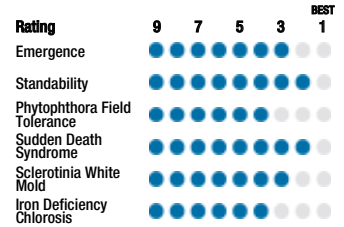


GH1763E3 BRAND

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

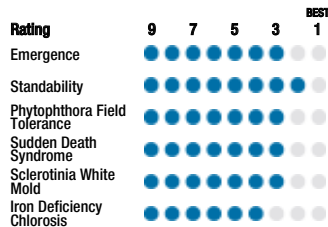


GH1827LG BRAND

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

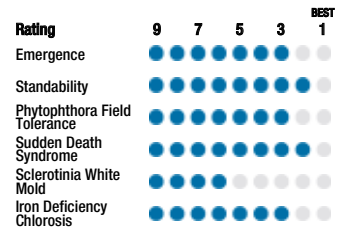


GH1852X BRAND

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

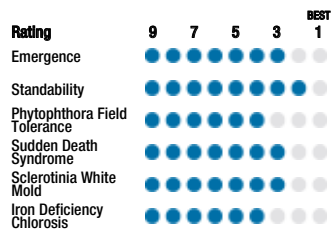


GH1915X BRAND

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

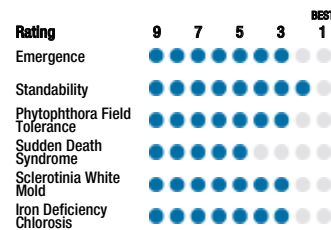


GH1944E3 BRAND

RM: 1.9

STRONG SCLEROTINIA WHITE MOLD TOLERANCE WITH GREAT STANDABILITY

- Solid Iron Deficiency Chlorosis tolerance
- Rps1c Phytophthora Root Rot gene with very good field tolerance
- Consistent performance across yield levels

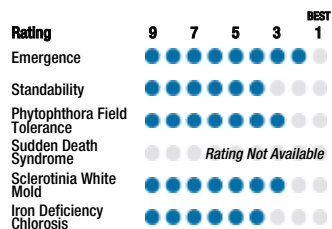


GH1955E3 BRAND

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

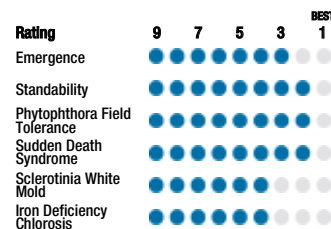


GH2011E3 BRAND

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



“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

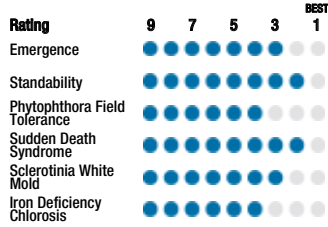
Head, Golden Harvest West Commercial Unit

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

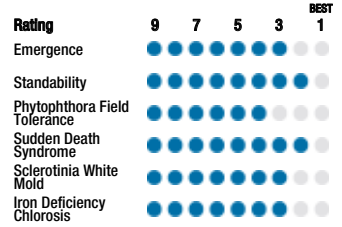


GH2041X BRAND

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

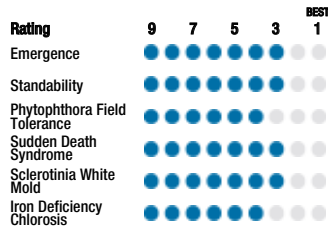


GH2230X BRAND

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

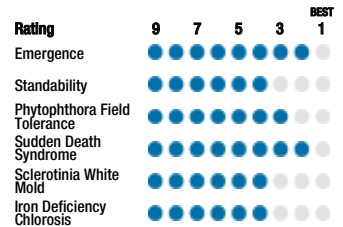


GH2329X BRAND

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

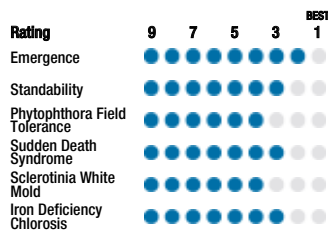


GH2427LG BRAND

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

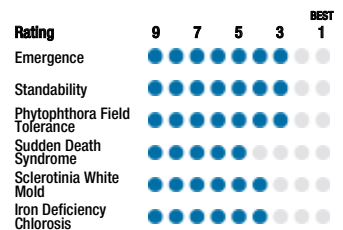


GH2523E3 BRAND

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

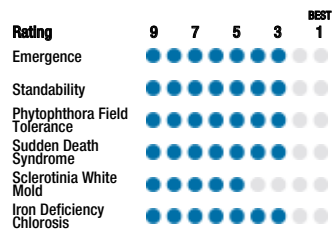


GH2552X BRAND

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

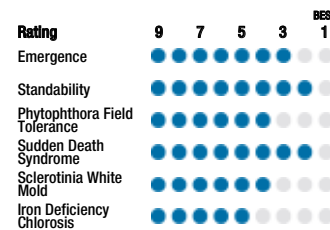


GH2788X BRAND

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

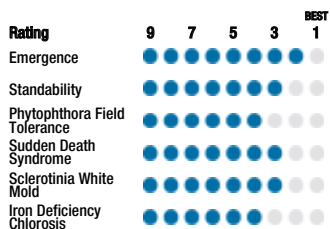


GH2818E3 BRAND

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

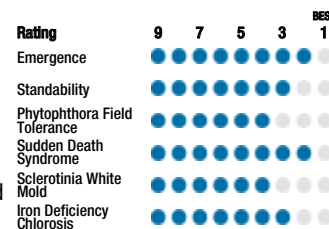


GH3088X BRAND

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



“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

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:



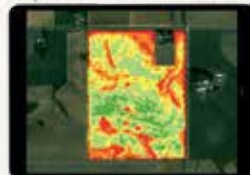
GaMePLaN

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



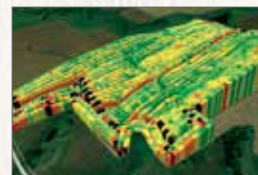
RangeFinder

- 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

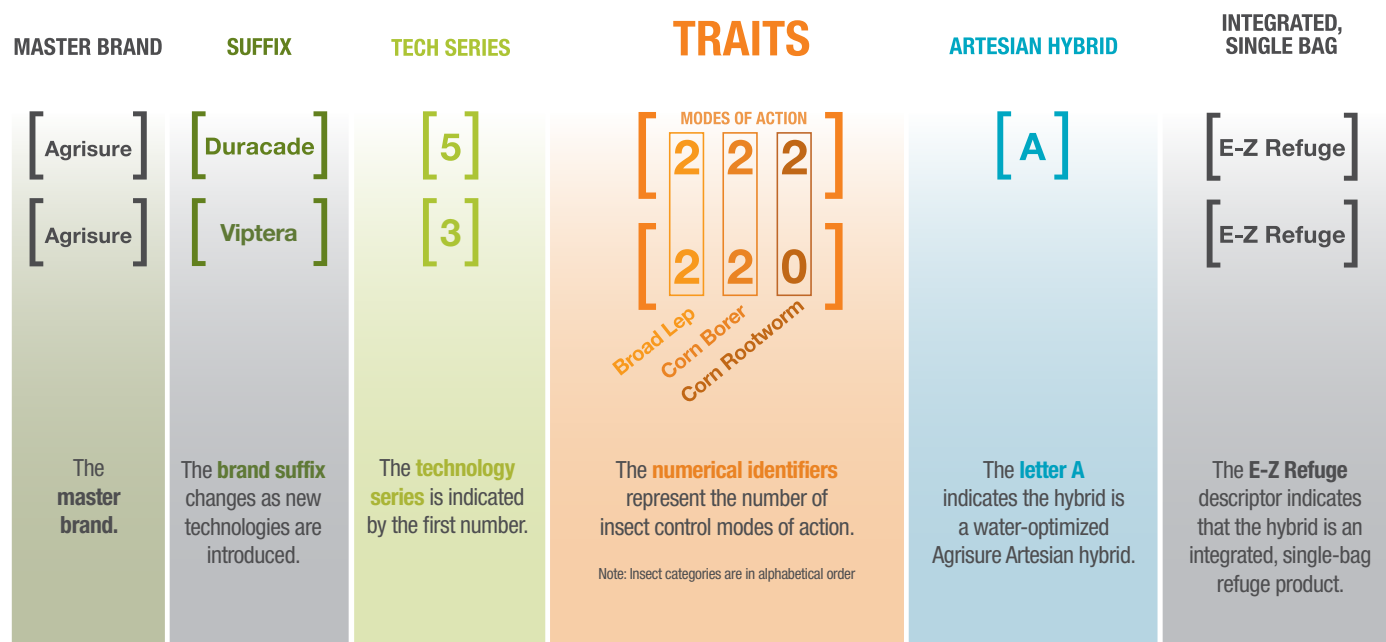
- Weather data
- Predictive analytics
- Seasonal review
- Monitor data importation–yield, as applied

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.

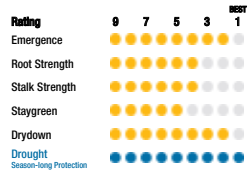
RM: Specific relative maturity for this hybrid series.

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)

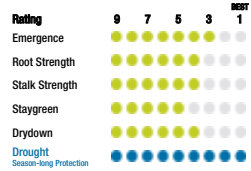
RM: Specific relative maturity for this hybrid series.

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.

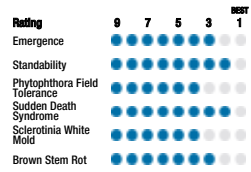
GOLDEN HARVEST SOYBEANS

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: _____

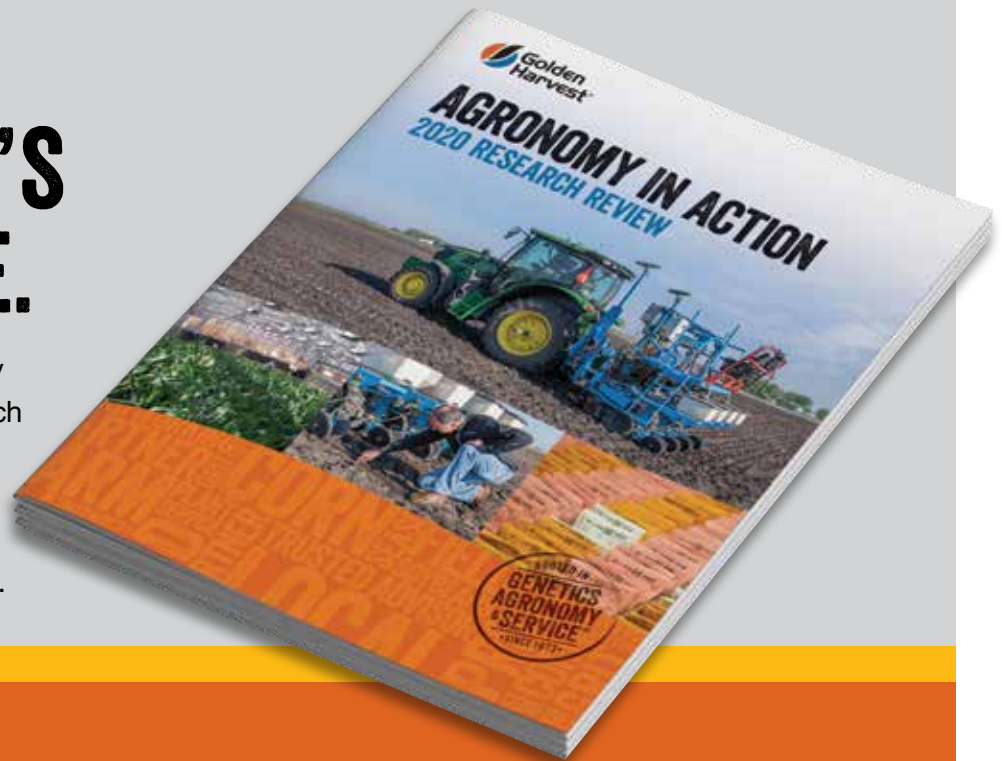
Variety: _____

Population: _____

Management Considerations: _____

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Product performance assumes disease presence.

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Some seed treatment offers are separately registered products applied to the seed as a combined slurry. **Always read individual product labels and treater instructions before combining and applying component products.** Orondis Gold may be sold as a formulated premix or as a combination of separately registered products: Orondis Gold 200 and Orondis Gold B.

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