

Test by: Northland F.I.R.S.T., LLC Moorhead, MN

2021 Corn Grain Top 30 Harvest Report

Red River Central North Dakota & Minnesota [RRCE]
WARREN, MN
Garth Kruger, Marshall County, MN

Early-Season Test	80 - 85 Day CRM B2021RRCE01a
Top 30 of 32	For Gross Income (Sorted by Yield) Average of (4) Replications
PREV. CROP/HERB:	Soybeans / Mad Dog, Fomesafen, Crosshair, Mso
SOIL DESCRIPTION:	Wheatville sandy loam, mod. poorly drained, non-irrigated
SOIL CONDITION:	Minimum W/O Fall Till, very low P, high K, 8.1 pH, 1.6% OM, 14.4 CEC
PEST MANAGEMENT:	Cornerstone, Capreno, Mso
FERTILITY - Applied N:	120 Spring, 3 Planter, 60 Sidedress
Applied N-P-K (units):	183-62-60
SEEDED - RATE - ROW:	Apr 30 34.5 /A 30" spacing
HARVESTED - STAND:	Oct 3 33.6 /A

TEST COMMENTS:

This location was our first corn plot planted this year. After the rain event on May 20th, this field had very little rainfall until the first part of August. The lack of rainfall, paired with above-average heat, caused stress throughout the plot and surrounding area. At harvest, stalk strength was excellent with no lodging; despite the dry conditions, there was no zippering of ears among all the varieties. An area of lower yields spanning several replicates in the early-season test lead to high variance and was rejected.

Company/Brand	Product/Brand	Seeds / Row	Rate #/A	Yield Bu/A	Moisture %	Lodging %	Stand (x 1000)	Gross Income \$/Acre	Rank
Midwest	AGROSTAR E2N	320A	81	182.7	17.0	0	34.0	821	1
Corn Harvest	AGROSTAR E2N	320A	84	188.8	16.3	0	33.3	817	2
Intigo	3001 VTOP#8	VTOP	84	193.4	17.3	0	33.3	792	3
Triumph	7880 VTOP	VTOP	82	192.9	14.8	0	33.3	786	4
AG	2881	VTOP	86	192.3	14.2	0	33.3	783	5
Liberty	LV 3201 VTOP#8	VTOP	82	191.7	15.8	0	33.3	773	6
Corn Harvest	AGROSTAR E2N	320A	82	191.3	16.3	0	33.3	771	7
Triumph	7880 VTOP	VTOP	86	191.4	16.2	0	33.3	766	8
AG	3002#8	VTOP	82	191.3	14.3	0	33.7	759	9
Liberty	LV 3201 VTOP#8	VTOP	82	191.2	14.8	0	34.0	749	10
Triumph	7881 VTOP	VTOP	81	191.1	14.8	0	33.7	739	11
AG	AGROSTAR E2N	320A	82	190.7	14.0	0	33.7	732	12
Corn Harvest	AGROSTAR E2N	320A	82	190.6	16.0	0	33.7	697	13
AG	AGROSTAR E2N	320A	82	190.3	16.3	0	33.9	688	14
AG	3002#8	VTOP	82	190.3	14.9	0	34.0	688	15
Triumph	7880 VTOP#8	VTOP	82	189.8	16.3	0	34.0	678	16
Triumph	7880 VTOP	VTOP	82	189.5	16.0	0	34.0	676	17
AG	AGROSTAR E2N	320A	82	187.8	16.0	0	34.0	668	18
AG	2881	VTOP	86	186.9	16.7	0	33.7	667	19
Triumph	7881 VTOP	VTOP	81	185.9	14.0	0	33.3	645	21
Triumph	7881 VTOP	VTOP	82	182.7	14.7	0	33.9	640	22
Triumph	7881	VTOP	82	182.7	14.8	0	33.3	633	23
AG	3002#8	VTOP	86	181.9	14.7	0	33.7	612	24
AG	AGROSTAR E2N	320A	82	181.3	14.2	0	33.7	610	25
Liberty	LV 3201 VTOP#8	VTOP	82	181.7	13.3	0	34.0	594	26
Triumph	7880 VTOP	VTOP	86	181.7	14.9	0	33.3	594	27
AG	2882	VTOP	86	181.1	14.2	0	33.7	585	28
AG	3002#8	VTOP	84	181.2	13.6	0	33.7	580	29
Triumph	7880 VTOP#8	VTOP	82	181.1	16.3	0	33.9	576	30
Intigo	3001 VTOP#8	VTOP	86	180.9	13.4	0	33.3	571	31

REJECTED

Averages =	132.1	15.4		33.6	687
LSD (0.10) =	ns	1.2	ns		
LSD (0.25) =	ns	0.6	ns		
C.V. =	24.6				Historic yield: new site

Luke Brendemuhl
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Yield & Income Factors: Base Moisture = 15.0% Shrink = 1.3 Drying = \$0.025 Prices: GMO = \$5.22

Report Date: 10/04/2021

Additional reports available at www.firstseedtests.com

† See last page for abbreviation descriptions. Dark colored row identifies the check product found in early- and full-season tests. **Bold** yields are significantly above test average by LSD(0.10). **Italicized** brands exceed the grain moisture limit for this test. **ns** = column values not significantly different. ↗ New! Links to full product yield results at www.firstseedtests.com

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2021 Corn Grain Top 30 Harvest Report

Red River Central North Dakota & Minnesota [RRCE]

WARREN, MN

Garth Kruger, Marshall County, MN

Full-Season Test 86 - 90 Day CRM
B2021RRCE01b

Top 30 of 32 For Gross Income
(Sorted by Yield)
Average of (4) Replications

PREV. CROP/HERB: Soybeans / Mad Dog,
Fomesafen, Crosshair, Mso

SOIL DESCRIPTION: Wheatville sandy loam, mod.
poorly drained, non-irrigated

SOIL CONDITION: Minimum W/O Fall Till, very low
P, high K, 8.1 pH, 1.6% OM,
14.4 CEC

PEST MANAGEMENT: Cornerstone, Capreno, Mso

FERTILITY - Applied N: 120 Spring, 3 Planter, 60
Sidedress

Applied N-P-K (units): 183-62-60

SEEDED - RATE - ROW: Apr 30 34.5 /A 30" spacing

HARVESTED - STAND: Oct 3 33.7 /A

TEST COMMENTS:

This location was our first corn plot planted this year. After the rain event on May 20th, this field had very little rainfall until the first part of August. The lack of rainfall, paired with above-average heat, caused stress throughout the plot and surrounding area. At harvest, stalk strength was excellent with no lodging; despite the dry conditions, there was no zippering of ears among all the varieties. An area of lower yields spanning several replicates in the early-season test lead to high variance and was rejected.

Company/Brand	Product/Brand	Technol.†	RM	Yield Bu/A ↓	Moisture %	Lodging %	Stand (x 1000)	Gross Income \$/Acre	Rank
Renk	RK312VT2PRIB ↗	VT2P	90	181.6	17.5	0	34.0	937	1
Rob-See-Co	RC3601-3011A ↗	3011A	86	179.9	17.6	0	33.4	927	2
Dairyland	DS-3022AM ↗	AM	90	179.3	17.7	0	33.3	923	3
Channel	187-20VT2PRIB GC ↗	VT2P	87	179.1	19.2	0	32.9	916	7
Golden Harvest	G90Y04-5222A EZR ↗	5222A	90	179.1	21.7	0	33.9	905	10
Dyna-Gro	D27VC87 ↗	VT2P	87	178.9	18.2	0	33.7	920	4
Proseed	1787 VT2PRIB ↗	VT2P	87	178.6	17.9	0	33.3	919	5
Latham	LH 3695 VT2P RIB ↗	VT2P	86	177.7	17.1	0	33.7	918	6
AgriGold	A617-78VT2RIB GC ↗	VT2P	87	176.7	17.7	0	34.4	910	8
Hefty	H4052 ↗	VT2P	90	175.0	17.5	0	33.7	903	11
Latham	LH 3937 VT2P RIB ↗	VT2P	89	173.2	19.1	0	34.0	886	12
Thunder	T6888 VT2P ↗	VT2P	88	168.8	17.1	0	34.4	872	13
REA	3B903 ↗	VT2P	90	167.7	16.7	0	33.3	868	14
Channel	189-64STXRIB GC ↗	STX	89	167.5	18.1	0	33.3	861	15
Golden Harvest	G90S99-5222 EZR ↗	5222	90	164.9	19.2	0	32.9	843	16
Renk	RK297VT2P ↗	VT2P	89	163.1	17.2	0	34.0	843	17
Integra	4041 VT2PRIB ↗	VT2P	90	162.1	17.5	0	33.7	836	20
Hefty	H3712 RIB ↗	VT2P	87	161.8	16.6	0	34.0	838	18
Latham	LH 3827 VT2P RIB ↗	VT2P	88	161.7	19.2	0	33.7	827	21
Thunder	T6987 VT2P ↗	VT2P	87	161.0	15.8	0	34.0	837	19
Integra	3629 VT2PRIB ↗	VT2P	86	158.8	16.8	0	34.0	822	22
Hefty	H3922 RIB ↗	VT2P	89	158.7	16.9	0	34.0	821	23
Dairyland	DS-2828AM ↗	AM	88	156.3	17.4	0	33.7	807	25
REA	3B912 ↗	VT2P	91	156.2	16.0	0	34.4	811	24
Hefty	H4032 RIB ↗	VT2P	90	155.4	16.3	0	34.0	806	26
Renk	RK315VT2P ↗	VT2P	90	154.3	18.0	0	34.4	793	27
Thunder	T6190 VT2P ↗	VT2P	90	150.5	17.5	0	33.3	776	28
Innotech	IC3983-3220 ↗	3220	89	148.6	19.4	0	33.3	760	29
Stine	9202-G ↗	3011A	86	140.1	16.9	0	34.0	725	30
Thunder	T7188 VT2P ↗	VT2P	88	134.1	17.3	0	33.3	692	31
DeKalb	DKC36-86RIB CK	VT2P	86	174.9	15.7	0	32.9	910	9

Averages = **163.6** **17.5** **33.7** **846**

LSD (0.10) = 16.4 1.1 ns

LSD (0.25) = 8.6 0.6 ns

C.V. = 11.0

Historic yield: new site

Luke Brendemuhl

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Yield & Income Factors: Base Moisture = 15.0% Shrink = 1.3 Drying = \$0.025 Prices: GMO = \$5.22

Report Date: 10/04/2021

† See last page for abbreviation descriptions. Dark colored row identifies the check product found in early- and full-season tests. **Bold** yields are significantly above test average by LSD(0.10). **Italicized** brands exceed the grain moisture limit for this test. **ns** = column values not significantly different. ↗ New! Links to full product yield results at www.firstseedtests.com

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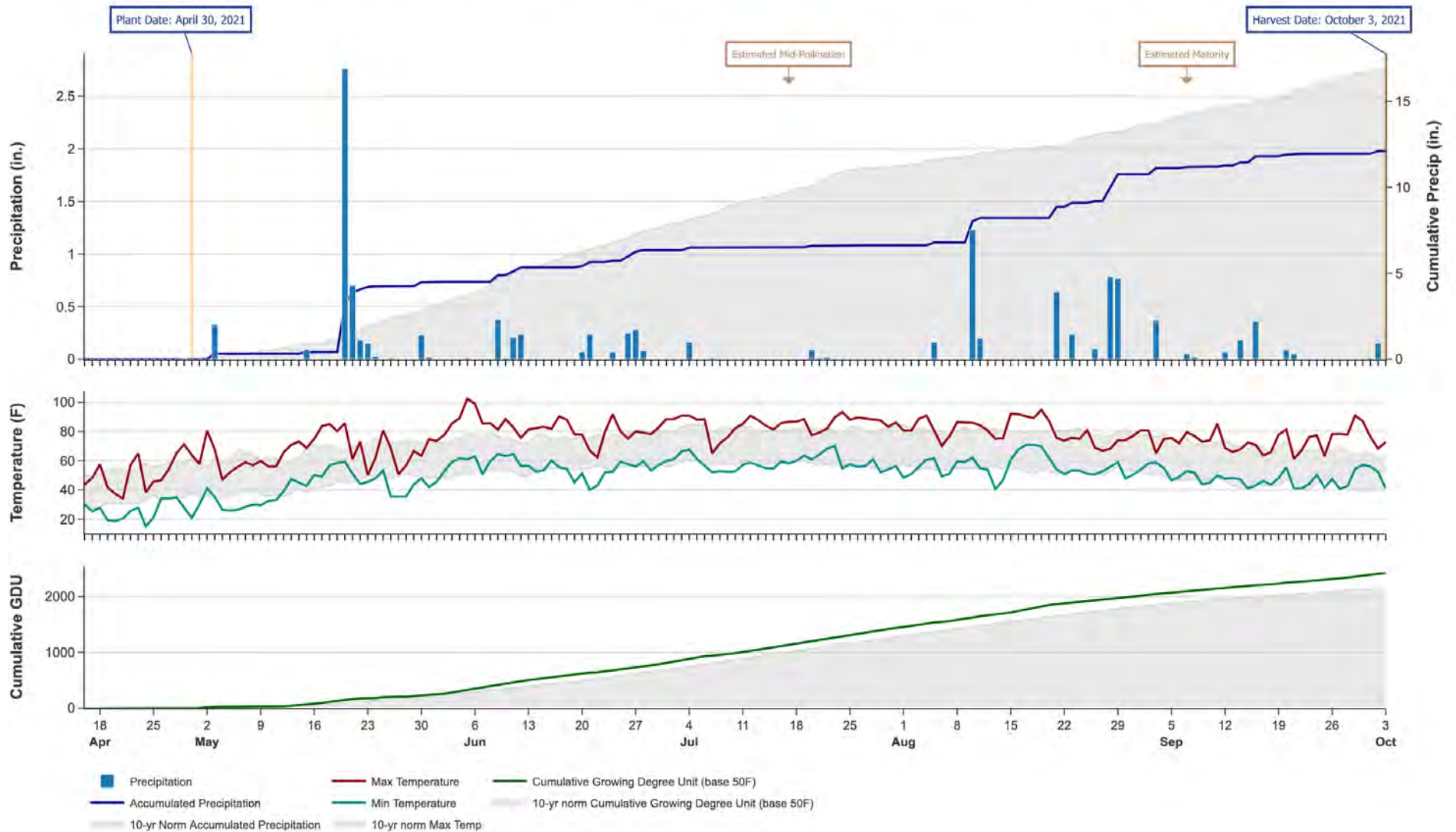
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2021 Corn - Red River Central North Dakota & Minnesota [RRCE]

Weather Conditions Summary at WARREN, MN

Weather Data Retrieved: 10/04/2021

Monthly Total	Apr*	May	Jun	Jul	Aug	Sep	Oct*	Total
Precip (in) Normal (Diff)	0.0 0.8 (-0.8)	4.5 3.1 (+1.4)	1.8 4.5 (-2.7)	0.3 3.6 (-3.3)	4.1 2.3 (+1.9)	1.2 3.2 (-2.1)	0.2 0.2 (-0.0)	12.1 17.7 (-5.6)
GDU Normal (Diff)	8 0 (+8)	233 214 (+18)	554 454 (+99)	653 613 (+39)	556 535 (+20)	386 312 (+73)	38 20 (+17)	2428 2150 (+277)



* First monthly total starts on the date 14 days prior to planting and final monthly total ends on the harvest date.

Note: Weather information from PRISM Climate Group. Data may be revised by the provider after retrieval. FIRST will not revise or update reports to reflect any weather data changes. For information purposes only.

2021 Corn - Red River Central North Dakota & Minnesota [RRCE]

Early-Season Test Products (32 Total)

Company/Brand	Product/Brand	Technology	RIB	RM	Seed Treat.
BioGene	BG510AT EZR	3220A	Y	81	CM,C2,Vi
BioGene	BG512V2 RIB	VT2P	Y	81	AC250
BioGene	BG520V2 RIB	VT2P	Y	82	AC250
DeKalb	DKC36-86RIB CK	VT2P	Y	86	AC,P5V,EDC-EL
Dyna-Gro	D23VC83	VT2P	N	83	AC,P5V
Golden Harvest	G80Q01-3220A EZR	3220A	Y	80	AVC,C5,Vi
Golden Harvest	G84J92-3120A EZR	3120A	Y	84	AVC,C2,Vi
Golden Harvest	G85Z56-3220 EZR	3220	Y	85	AVC,C2,Vi
Hefty	H2842 RIB	VT2P	Y	80	HC
Hefty	H3042 RIB	VT2P	Y	80	HC
Hefty	H3322 RIB	VT2P	Y	83	HC
Hefty	H3442 RIB	VT2P	Y	84	HC
Hefty	H3542 RIB	VT2P	Y	85	HC
Integra	3009 VT2PRIB	VT2P	Y	80	AC,P5V,SU
Integra	3431 VT2PRIB	VT2P	Y	84	AC,P5V,SU
Latham	LH 2977 VT2P RIB	VT2P	Y	79	AC,P2
Latham	LH 3325 VT2P RIB	VT2P	Y	83	AC,P2
Latham	LH 3397 VT2P RIB	VT2P	Y	83	AC,P2
Proseed	1882 VT2PRIB	VT2P	Y	82	AVC,C2,Vi
REA	2B851	VT2P	Y	85	AC,P5,B360
REA	2B862	VT2P	Y	86	AC,P5,B360
REA	2B863	VT2P	Y	86	AC,P5,B360
Renk	RK227VT2P	VT2P	N	82	AC,P2
Renk	RK256-3120-EZ	3120	Y	84	CM,C2
Rob-See-Co	RC3041-3110A	3110A	N	80	CM,C2,Vi
Rob-See-Co	RC3240-GT	GT	N	82	CM,C2,Vi
Rob-See-Co	RC3418-3220A	3220A	Y	84	CM,C2,Vi
Thunder	T6085 VT2P	VT2P	Y	85	AC,P2
Thunder	T6181 VT2P	VT2P	Y	81	AC,P2
Thunder	T6185 VT2P	VT2P	Y	85	AC,P2
Thunder	T6782 VT2P	VT2P	Y	82	AC,P2
Thunder	T6983 VT2P	VT2P	Y	83	AC,P2

* FIRST does not inspect products for refuge blend. N* indicates the product was entered without a refuge component by the sponsoring seed company. Prior year entries may contain refuge blend.

2021 Corn - Red River Central North Dakota & Minnesota [RRCE]

Full-Season Test Products (32 Total)

Company/Brand	Product/Brand	Technology	RIB	RM	Seed Treat.
AgriGold	A617-78VT2RIB GC	VT2P	Y	87	AC,P5V
Channel	187-20VT2PRIB GC	VT2P	Y	87	AC,P5,B360
Channel	189-64STXRIB GC	STX	Y	89	AC,P5V,B-360
Dairyland	DS-2828AM	AM	Y	88	Lum
Dairyland	DS-3022AM	AM	Y	90	Lum,P1V
DeKalb	DKC36-86RIB CK	VT2P	Y	86	AC,P5V,EDC-EL
Dyna-Gro	D27VC87	VT2P	N	87	AC,P5V
Golden Harvest	G90S99-5222 EZR	5222	Y	90	AVC,C2,Vi
Golden Harvest	G90Y04-5222A EZR	5222A	Y	90	AVC,C2,Vi
Hefty	H3632 RIB	VT2P	Y	86	HC
Hefty	H3712 RIB	VT2P	Y	87	HC
Hefty	H3922 RIB	VT2P	Y	89	HC
Hefty	H4032 RIB	VT2P	Y	90	HC
Hefty	H4052	VT2P	N	90	HC
Innotech	IC3983-3220	3220	Y	89	AVC,C2,Vi
Integra	3629 VT2PRIB	VT2P	Y	86	AC,P5V
Integra	4041 VT2PRIB	VT2P	Y	90	AC,P5,SU
Latham	LH 3695 VT2P RIB	VT2P	Y	86	AC,P2
Latham	LH 3827 VT2P RIB	VT2P	Y	88	AC,P2
Latham	LH 3937 VT2P RIB	VT2P	Y	89	AC,P2
Proseed	1787 VT2PRIB	VT2P	Y	87	AVC,C2,Vi
REA	3B903	VT2P	Y	90	AC,P5,B360
REA	3B912	VT2P	Y	91	AC,P5,B360
Renk	RK297VT2P	VT2P	N	89	AC,P5V
Renk	RK312VT2PRIB	VT2P	Y	90	AC,P2
Renk	RK315VT2P	VT2P	N	90	AC,P2
Rob-See-Co	RC3601-3011A	3011A	N	86	CM,C2,Vi
Stine	9202-G	3011A	N	86	Treated
Thunder	T6190 VT2P	VT2P	Y	90	AC,P2
Thunder	T6888 VT2P	VT2P	Y	88	AC,P2
Thunder	T6987 VT2P	VT2P	Y	87	AC,P2
Thunder	T7188 VT2P	VT2P	Y	88	AC,P2

* FIRST does not inspect products for refuge blend. N* indicates the product was entered without a refuge component by the sponsoring seed company. Prior year entries may contain refuge blend.

Footnotes and Abbreviations Descriptions

Brand Footnotes

[^] Innotech™ brand seed is distributed by Rob-See-Co, LLC. Power Plus® brand seed is distributed by Burrus. Innotech™ is a trademark of Syngenta. Power Plus® is a registered trademark of Corteva Agriscience.

CK Identifies a check product included in early- and full-season tests.

GC Grower Comparison product included by FIRST when space permits.

Corn Technologies

3011A Agrisure® Artesian® 3011A (CB,RW,LL,GT)

3110A Agrisure® Artesian® Viptera® 3110 (Vip, CB,LL,GT)

3120 Agrisure® 3120 (CB,HX,LL,GT)

3120A Agrisure® Artesian® 3120 (CB,HX,LL,GT)

3220 Agrisure® Viptera® 3220 (Vip,CB,HX,LL,GT)

3220A Agrisure® Artesian® Viptera® 3220 (Vip,CB,HX,LL,GT)

5222 Agrisure® Duracade™ 5222

5222A Agrisure® Duracade™ Artesian® 5222

AM Optimum® AcreMax®

GT Agrisure® GT

STX SmartStax®

VT2P Genuity® VT Double PRO®

NOTE: The refuge component genetics may vary in a refuge blend seed product.

Corn Seed Treatments*

NA	Not Available
AC250	Acceleron® 250
AC,P2	Acceleron® 250
AC,P5,B360	Acceleron® 500 with BioRise™ B-360 ST
AC,P5,SU	Acceleron® 500, StepUp
AC,P5V	Acceleron® Poncho 500/Votivo
AC,P5V,B-360	Acceleron® Poncho 500/Votivo with B-360 SAT
AC,P5V,EDC-EL	Acceleron® ELITE Poncho 500/Votivo with Enhanced Disease Control
AC,P5V,SU	Acceleron® Poncho 500/Votivo, StepUp
AVC,C2,Vi	Avicta® Complete 250, Vibrance®
AVC,C5,Vi	Avicta® Complete 500, Vibrance
CM,C2	CruiserMaxx® 250
CM,C2,Vi	CruiserMaxx® 250 with Vibrance
HC	Hefty Complete
Lum	LumiGEN™ (Corteva Agriscience)
Lum,P1V	LumiGEN™ Poncho 1250/Votivo
Treated	Treated seed, unspecified

* Seed treatments may include unspecified plant health promoting components.