



Soybean

2019 Iowa Crop Performance Tests

Iowa's Official Variety Trials



IOWA STATE UNIVERSITY

Department of Agronomy

A summary of replicated research by Iowa Crop Improvement Association.



Iowa Crop Improvement Association

Iowa Crop Performance Tests—Soybeans

is conducted each year to provide information farmers need to select the best varieties for their production conditions. Yield trial information, testing procedures, and more can be found at **croptesting.iastate.edu**.

Testing Procedures

Seed companies, Iowa Crop Improvement Association, and Iowa State University are eligible to enter varieties in the Iowa Crop Performance Tests—Soybeans. There are three testing districts and five testing sites within each district (Figure 1). Entries were subdivided into experiments based on relative maturity, providing an early-season and full-season test within each district.

Each entry was replicated four times in four-row plots at a planting rate of 140,000 seeds per acre at each location. Row spacing was 30 inches, plot length was 20 feet, and planted row length was 17.4 feet. The center two rows of each plot were harvested with a soybean plot combine. A moisture determination was made from each plot and yields were corrected to 13 percent moisture. Yield determinations are based on a 20-foot plot, which includes the planted row plus the alley. This is because area in alleys may contribute to the yield of plants at the ends of planted rows.

Information Layout

Tables 3-5 contain two-year averages of agronomic information from a maximum of five locations each year. Current year district averages are shown in Tables 6-11, and entries are reported in either the early-season or full-season tests within each district. These tables contain a mean yield and adjusted gross value based on all locations within the district. In addition, there are yield estimates based on the western fields and the eastern fields within a district. In these estimates, the location in the center of the district is used in both subcomponents. Each of these tables also contains the single-location yield for each entry. Other information is available at **croptesting.iastate.edu**.

Least Squares Means

All trait means in all tables were computed using least squares means. In cases where some values are missing, this provides the best estimates of trait values across replications, locations, and years. Least squares means are not equivalent to simple arithmetic means like those computed in a spreadsheet program using raw data or location means. Least squares means should always be used in multiple-comparison tests like the Iowa Crop Performance Tests.



Interpretation of Results

Statistical analysis identifies the portion of yield differences due to variation in soil types, soil fertility, moisture availability, insect infestation, and diseases; plus any variation due to planting and harvesting techniques. The least significant difference (LSD) values for yield represent, in bushels per acre, the amount of yield variation that could be due to variations in the factors just mentioned. In comparing varieties, yield differences greater than the LSD value can be attributed to differences in the yield potential of these varieties; yield differences less than the LSD value are not statistically different and could have been due to other factors.

Maturity ratings for varieties are estimates and may vary across seasons. Yield comparisons should be made among varieties of similar maturity.

Growing conditions vary at each location. Stressful conditions, such as drought, extended periods of high temperature, or excess rainfall may affect some locations more than others. It is important to select varieties having stable performance over a range of environmental conditions because it is not certain how next year's growing season will develop. High yields for two or more consecutive years indicate stable performance. If two-year means are not available, regional averages consisting of several locations should be used to make selection decisions. Performance data from a single location have a very low predictive probability and should not be relied upon for variety selection decisions.



Supplemental yield and agronomic information about specific varieties may be obtained from seed dealers, crop consultants, and from neighbors who have grown these varieties.

Use of These Data in Advertisements

Specific advertising statements by a company about the performance of its entries must accurately reflect the published data.



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The presentation of data for the varieties tested does not imply endorsement by the authors or the agencies conducting the test.

Iowa Crop Improvement Association offers unbiased, third-party information to Iowa growers on the adaptation and performance of corn hybrids and soybean varieties. The latest results are available at croptesting.iastate.edu.

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For More Information

- For more information about the *Iowa Crop Performance Tests*, see croptesting.iastate.edu.
- For information about Iowa Crop Improvement Association, visit iowacrop.org.
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Figure 1.

Test locations for the 2019 Iowa Crop Performance Tests—Soybean

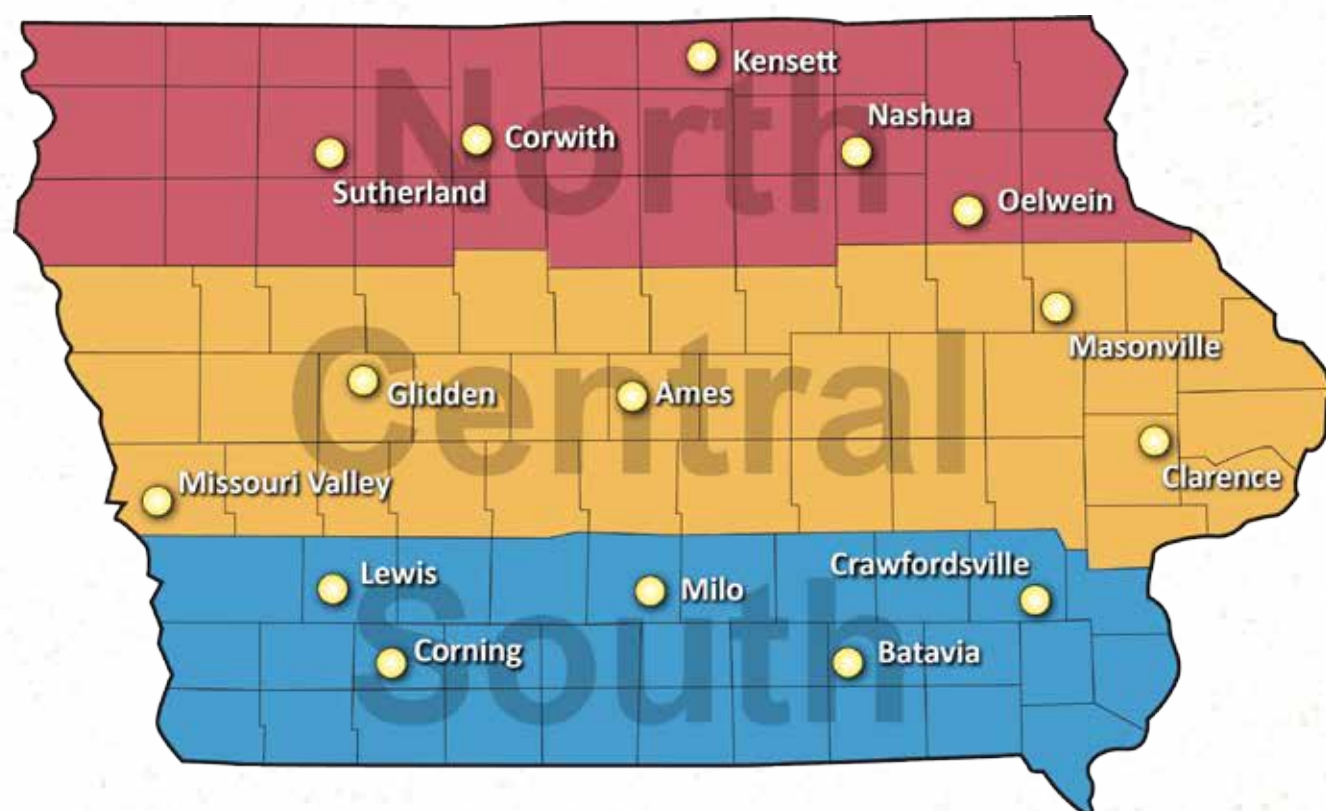


Table 1. General information for the 2019 soybean test.

Location and Cooperator	Soil Type	Planting Date	Harvest Date	Avg Yield Bu/Acre
North				
Sutherland, Terry Tuttle	Galva/Primghar silty clay loam	4-Jun	28-Oct	57.9
Corwith, Norm & Jonathan Chambers	Canisteo clay loam	16-May	25-Oct	55.8
Kensett, Justin Faber	Moland loam	7-May	28-Oct	59.6
Nashua, Ken Pecinovsky	Kenyon loam	4-May	10-Oct	59.0
Oelwein, Heath Gieselman	Readlyn silt loam	2-Jun	17-Oct	61.9
Central				
Missouri Valley, Dean McIntosh	Kennebec silt loam	7-Jun	17-Oct	68.6
Glidden, David & Andy Theilen	Clarion/Nicollet loam, Webster clay loam	16-May	16-Oct	71.4
Ames, Kevin Scholbrock	Canisteo clay loam, Clarion/Nicollet loam	3-Jun	31-Oct	56.2
Masonville, Dennis Lindsay	Kenyon Loam	14-May	18-Oct	52.9
Clarence, Dave Elijah	Tama/Muscatine silty clay loam	15-May	16-Oct	77.7
South				
Lewis, Dallas Maxwell	Marshall silty clay loam	16-May	24-Oct	72.7
Corning, Chris Gaesser	Macksburg silty clay loam	16-May	24-Oct	68.8
Milo, Craig & Adam Hill	Givin/Ladoga silty clay loam	3-Jun	1-Nov	64.2
Batavia, Allen McElderry	Haig silt loam	3-Jun	N/A	N/A
Crawfordsville, Myron Rees	Mahaska silty clay loam	6-Jun	15-Oct	73.8

Table 2. Seed treatment and other data descriptions.

Seed Treatment		Herb Tech: Herbicide Technology	
CCB	Clariva Complete Beans	Conv	Conventional, no herbicide traits
CM	CruiserMaxx	E3	Enlist E3
CMV	CruiserMaxx Vibrance	LL	Liberty Link
Clar+Mer	Clariva + Mertect	LLGT27	Balance GT + LL
E-VIP	Elevate VIP	RR2X	Roundup Ready 2 Xtend
ILVO	ILeVO	RR2Y	Roundup Ready 2 Yield
INT-STE	Intego Suite		
Other	Acceleron Biologicals + NemaStrike		
PV	Poncho-VOTiVO		
Spir348	Spirato IMTm 348		
		Yield: Bushels per acre, adjusted to 13% moisture basis	
		MG: Maturity group indicated by variety name	

This year we evaluated over 160 varieties from 15 companies, in more than 200 district-by-variety combinations. Entries were distributed in three districts and two experiments per district. Each experiment was grown at five locations, with four replicates of each entry at each location.

Table 3. North district 2-year means, 2018-2019.**North early-season varieties, MG ≤ 2.2**

Company	Variety	MG	Herb Tech	Yield Bu/A	NW Yield Bu/A	NE Yield Bu/A	AGV \$
Pioneer	P21A28X	2.1	RR2X	59.9	57.0	60.5	480
Asgrow	AG20X9	2.0	RR2X	59.0	58.0	58.2	472
LG Seeds	LGS2007RX	2.0	RR2X	58.9	56.7	59.7	471
Viking	2155N	2.1	Conv	58.7	58.9	57.1	469
Asgrow	AG22X9	2.2	RR2X	58.7	57.2	59.2	470
Cornelius	CB18X80	1.8	RR2X	58.4	55.3	60.9	467
Cornelius	CB21X55	2.1	RR2X	57.8	55.6	59.4	462
Viking	2018N	2.0	Conv	57.5	56.0	57.1	460
Four Star	3X221	2.2	RR2X	57.2	56.5	55.9	458
Dyna-Gro	S21XT49	2.1	RR2X	56.6	54.8	57.2	453
Iowa State	IA2102	2.0	Conv	55.2	55.7	53.8	441
Viking	2188AT12N	2.2	Conv	54.8	56.5	51.2	438
Iowa State	IA2112RA12	2.0	Conv	54.6	56.2	52.0	437
LG Seeds	LGS1635RX	1.8	RR2X	53.8	50.8	55.2	430
Experiment Mean				57.3	56.4	57.1	
LSD(0.25)				2.0	2.3	2.7	

North full-season varieties, MG > 2.2

Company	Variety	MG	Herb Tech	Yield Bu/A	NW Yield Bu/A	NE Yield Bu/A	AGV \$
LG Seeds	LGS2417RX	2.4	RR2X	61.4	60.7	61.0	491
Titan Pro	TP-24X87	2.4	RR2X	61.3	59.9	61.5	490
Cornelius	CB24X64	2.4	RR2X	60.7	60.0	60.6	485
Four Star	3X271	2.7	RR2X	60.7	59.4	60.6	486
Renk	RS248NX	2.4	RR2X	60.1	59.6	59.8	481
Pioneer	P25A70R	2.5	RR2Y	59.9	58.1	60.3	479
Four Star	3X241	2.4	RR2X	59.6	59.3	58.5	477
Dyna-Gro	S24LL98	2.4	LL	59.1	57.9	59.6	473
LG Seeds	LGS2444RX	2.4	RR2X	58.9	57.0	57.9	471
Dyna-Gro	S24XT08	2.4	RR2X	58.7	58.1	58.2	470
Asgrow	AG23X9	2.3	RR2X	58.6	57.7	57.6	469
Asgrow	AG24X9	2.4	RR2X	58.2	58.0	57.5	466
Four Star	3X262	2.6	RR2X	56.1	55.4	55.6	449
Viking	2418N	2.4	Conv	55.9	56.1	54.3	447
Viking	2340KN	2.3	Conv	55.5	56.0	53.5	444
Experiment Mean				57.3	56.4	57.1	
LSD(0.25)				2.0	2.3	2.7	

Table 4. Central district 2-year means, 2018-2019.**Central early-season varieties, MG \leq 2.7**

Company	Variety	MG	Herb Tech	Yield Bu/A	CW Yield Bu/A	CE Yield Bu/A	AGV \$
LG Seeds	LGS2417RX	2.4	RR2X	66.4	64.2	64.9	531
Cornelius	CB27X81	2.7	RR2X	65.9	64.4	63.7	527
Four Star	3X271	2.7	RR2X	65.2	64.0	62.5	521
LG Seeds	LGS2444RX	2.4	RR2X	64.2	63.8	60.6	514
Renk	RS248NX	2.4	RR2X	63.4	62.1	61.7	507
Pioneer	P25A70R	2.5	RR2Y	63.2	63.6	59.9	506
Dyna-Gro	S25XT99	2.5	RR2X	63.1	64.2	59.2	504
Dyna-Gro	S24LL98	2.4	LL	62.7	61.6	60.8	502
Four Star	3X241	2.4	RR2X	62.5	61.8	60.2	500
Asgrow	AG23X9	2.3	RR2X	62.3	61.8	60.0	499
Four Star	3X262	2.6	RR2X	60.4	59.8	58.2	483
Experiment Mean				62.7	62.0	60.6	
LSD(0.25)				2.4	2.7	3.5	

Central full-season varieties, MG $>$ 2.7

Company	Variety	MG	Herb Tech	Yield Bu/A	CW Yield Bu/A	CE Yield Bu/A	AGV \$
LG Seeds	C2888RX	2.8	RR2X	67.2	66.7	64.7	538
Dyna-Gro	S28XT58	2.8	RR2X	66.3	65.5	63.9	530
Titan Pro	TP-28X47	2.8	RR2X	65.9	65.7	62.4	528
Pioneer	P31A22X	3.1	RR2X	64.8	62.6	64.5	518
LG Seeds	LGS3297RX	3.2	RR2X	64.5	63.5	63.0	516
Cornelius	CB29X90	2.9	RR2X	64.4	64.4	62.4	515
Asgrow	AG29X9	2.9	RR2X	64.0	64.2	61.1	512
Asgrow	AG30X9	3.0	RR2X	62.6	61.8	60.0	500
Four Star	3X301	3.0	RR2X	60.9	60.7	58.3	487
Renk	RS309NSX	3.0	RR2X	60.0	60.3	57.4	480
Experiment Mean				62.7	62.0	60.6	
LSD(0.25)				2.4	2.7	3.5	



Table 5. South district 2-year means, 2018-2019.**South early-season varieties, MG \leq 3.2**

Company	Variety	MG	Herb Tech	Yield Bu/A	SW Yield Bu/A	SE Yield Bu/A	AGV \$
LG Seeds	C2888RX	2.8	RR2X	72.9	60.4	65.0	583
LG Seeds	LGS3297RX	3.2	RR2X	71.5	59.2	64.9	572
Asgrow	AG29X9	2.9	RR2X	70.9	60.5	64.7	567
Dyna-Gro	S28XT58	2.8	RR2X	70.8	59.4	64.2	566
Pioneer	P31A22X	3.1	RR2X	69.6	59.1	63.3	557
Renk	RS309NSX	3.0	RR2X	67.4	56.0	58.4	539
Four Star	3X301	3.0	RR2X	67.1	55.4	60.0	537
Asgrow	AG30X9	3.0	RR2X	66.7	57.1	61.4	533

Experiment Mean
LSD(0.25)

68.7
2.3

57.2
2.9

61.3
2.6

South full-season varieties, MG > 3.2

Company	Variety	MG	Herb Tech	Yield Bu/A	SW Yield Bu/A	SE Yield Bu/A	AGV \$
Renk	RS357NX	3.5	RR2X	74.1	59.9	64.8	593
LG Seeds	C3550RX	3.5	RR2X	71.6	61.5	66.0	573
LG Seeds	LGS3777RX	3.7	RR2X	71.3	57.8	62.7	570
Dyna-Gro	S33XT79	3.3	RR2X	70.8	59.4	64.0	566
Dyna-Gro	S34XT69	3.4	RR2X	70.1	57.5	63.7	561
Renk	RS379NSX	3.7	RR2X	70.1	55.4	60.5	561
MorSoy	MS 3907 RXT	3.9	RR2X	69.0	56.5	60.8	552

Experiment Mean
LSD(0.25)

68.7
2.3

57.2
2.9

61.3
2.6



Table 6. North district, 2019 district and single-location means. Early-season test, MG ≤ 2.2.

Company	Variety	MG	Herb Tech	District Means			Single Location Yield				
				Yield Bu/A	NW Yield	NE Yield	Sutherland	Corwith	Kensett	Nashua	Oelwein
Asgrow	AG20X9	2.0	RR2X	61.5	61.2	61.2	63.7	60.0	59.9	60.9	62.8
Credenz	CZ 2230GTLL	2.2	LLGT27	61.1	58.4	64.4	59.1	53.1	63.0	63.9	66.3
Asgrow	AG19X0	1.9	RR2X	61.0	60.1	62.3	59.8	58.0	62.3	58.8	65.7
Titan Pro	22E8	2.2	E3	60.6	59.4	62.5	59.1	56.2	63.0	59.5	64.9
P3 Genetics	P3 2021E	2.0	E3	60.5	59.1	61.7	60.1	57.9	59.3	59.3	66.6
NK Brand	S21-W8X	2.1	RR2X	60.3	59.9	60.2	60.3	59.9	59.5	54.8	66.3
Asgrow	AG22X9	2.2	RR2X	60.3	58.6	62.7	57.3	56.2	62.2	60.5	65.4
Cornelius	CB18X80	1.8	RR2X	60.0	57.0	63.3	55.9	54.6	60.6	62.4	66.9
Golden Harvest	GH2230X	2.2	RR2X	60.0	59.3	61.1	61.2	55.7	61.1	56.7	65.4
Pioneer	P21A28X	2.1	RR2X	59.8	58.4	60.8	57.8	58.5	58.9	63.4	60.1
LG Seeds	LGS2007RX	2.0	RR2X	59.5	57.8	61.2	55.6	58.6	59.1	61.7	62.7
Iowa State	IA10012	2.0	Conv	59.5	58.5	61.2	56.5	57.0	61.9	57.1	64.7
Asgrow	AG18X0	1.8	RR2X	59.4	57.1	61.3	57.6	55.8	57.9	58.5	67.3
Four Star	EX 3112	1.9	RR2X	59.3	57.5	62.1	56.0	54.6	61.9	60.5	63.9
Credenz	CZ 1549GTLL	1.7	LLGT27	59.3	58.4	60.5	60.4	54.2	60.7	58.0	62.7
Golden Harvest	GH1915X	1.9	RR2X	59.1	57.9	59.4	60.6	56.1	56.9	56.9	64.5
Renk	RS213NR2	2.2	LLGT27	59.1	58.4	60.2	61.1	53.9	60.3	59.4	60.9
Viking	2155N	2.1	Conv	59.0	58.5	59.5	63.1	53.4	58.9	63.9	55.6
Titan Pro	20E9	2.0	E3	58.9	58.2	60.6	57.9	55.0	61.8	54.9	65.0
Viking	2018N	2.0	Conv	58.7	58.3	59.6	58.7	55.7	60.6	57.2	60.9
Cornelius	CB20X22	2.0	RR2X	58.6	57.0	60.5	55.2	56.1	59.6	57.7	64.3
Four Star	3X221	2.2	RR2X	58.4	56.0	58.6	59.3	56.3	52.5	58.0	65.3
Iowa State	IA10008	2.0	Conv	58.4	58.0	59.2	54.6	59.9	59.5	55.4	62.7
Four Star	EXP 3110	2.2	RR2X	58.3	57.9	59.1	55.9	58.0	59.7	58.2	59.5
LG Seeds	LGS1776RX	1.7	RR2X	58.2	57.5	59.4	56.7	56.0	59.8	56.6	61.9
NK Brand	S14-U9X	1.4	RR2X	58.0	56.8	58.7	58.1	55.1	57.2	60.2	58.8
Dyna-Gro	S21XT49	2.1	RR2X	57.9	56.8	59.3	55.3	55.9	59.2	58.4	60.2
Dyna-Gro	S21EN70	2.1	E3	57.9	57.6	57.8	58.3	57.5	57.1	53.5	62.9
Cornelius	CB21X55	2.1	RR2X	57.9	55.2	60.9	52.1	54.7	58.8	59.7	64.1
P3 Genetics	P3 2023E	2.2	E3	57.8	58.1	59.8	59.3	51.3	63.6	60.7	55.0
Titan Pro	20GL8	2.0	LLGT27	57.7	56.5	59.3	55.2	55.6	58.8	59.4	59.8
P3 Genetics	P3 2018E	1.9	E3	57.2	56.2	58.9	55.7	53.5	59.5	57.0	60.1
Dyna-Gro	S19XT30	1.9	RR2X	57.2	57.0	57.2	58.5	56.0	56.5	56.5	58.6
Viking	2188AT12N	2.2	Conv	57.0	58.0	55.0	60.2	59.1	54.7	57.2	53.1
Credenz	CZ 1859GTLL	1.8	LLGT27	56.4	55.5	58.0	58.3	49.6	58.6	55.1	60.4
Titan Pro	19E8	1.9	E3	56.4	55.3	58.6	55.0	51.0	59.8	55.2	60.9
Iowa State	IA2102	2.0	Conv	56.4	55.6	56.8	55.3	55.8	55.7	60.1	54.7
Iowa State	IA2112RA12	2.0	Conv	56.3	58.5	54.8	57.5	59.0	59.0	58.5	46.9
LG Seeds	LGS1635RX	1.8	RR2X	56.1	54.7	58.1	53.0	53.4	57.7	53.0	63.5
Credenz	CZ 2101LL	2.1	LL	56.0	55.4	56.8	57.9	52.0	56.3	52.8	61.3
P3 Genetics	P3 1920E	2.2	E3	56.0	57.2	57.0	55.4	53.7	62.3	50.8	57.8
Credenz	CZ 1738LL	1.7	LL	55.6	56.0	55.7	57.4	54.5	56.0	52.9	58.2
Iowa State	AR17-279009	2.1	Conv	55.6	54.9	56.0	51.6	58.0	55.1	57.2	55.6
Iowa State	AX19287-2-35	1.5	Conv	51.2	49.9	53.1	47.7	48.9	53.1	50.9	55.4
Iowa State	AR17-179015	1.9	Conv	50.8	49.2	53.1	46.1	48.3	53.1	53.2	53.1

Experiment Mean	58.1	57.1	55.4	59.0	57.7	61.2
Minimum Mean	50.8	46.1	48.3	52.5	50.8	46.9
Maximum Mean	61.5	63.7	60.0	63.6	63.9	67.3
LSD(0.25)	2.0	1.8	2.5	2.7	2.5	2.4
Coefficient of Variability	4.5	3.8	5.4	5.4	5.1	4.8

Table 7. North district, 2019 district and single-location means. Full-season test, MG > 2.2.

Company	Variety	MG	Herb Tech	District Means			Single Location Yield				
				Yield Bu/A	NW Yield	NE Yield	Sutherland	Corwith	Kensett	Nashua	Oelwein
LG Seeds	LGS2444RX	2.4	RR2X	63.0	61.7	63.6	62.7	62.1	60.3	64.1	66.3
Credenz	CZ 2579GTLL	2.7	LLGT27	62.2	60.6	63.7	58.0	61.5	62.4	62.5	66.4
Pioneer	P23A32X	2.3	RR2X	61.9	61.6	62.5	62.6	60.2	62.0	61.8	63.7
LG Seeds	LGS2417RX	2.4	RR2X	61.9	60.9	63.4	61.2	58.1	63.3	60.8	66.0
Pioneer	P27A17X	2.7	RR2X	61.4	62.2	61.4	62.7	59.7	64.2	60.1	59.7
Titan Pro	TP-24X87	2.4	RR2X	61.3	60.0	62.5	61.7	57.7	60.5	60.4	66.6
Four Star	3X271	2.7	RR2X	61.3	59.2	63.6	58.0	58.4	61.2	62.8	66.6
Credenz	CZ 2601LL	2.6	LL	61.3	60.4	62.5	61.7	58.0	61.4	58.9	67.2
Renk	RS248NX	2.4	RR2X	61.3	59.6	63.3	61.9	54.6	62.2	61.2	66.5
Cornelius	CB24X64	2.4	RR2X	61.1	59.4	63.5	60.5	54.8	63.1	61.8	65.7
Asgrow	AG27X0	2.7	RR2X	61.1	59.4	62.9	57.7	58.9	61.7	62.0	64.9
Pioneer	P25A70R	2.5	RR2Y	61.0	59.7	62.2	60.5	58.7	59.9	65.3	61.3
Asgrow	AG24X9	2.4	RR2X	60.9	59.9	63.0	60.9	55.1	63.7	58.6	66.6
P3 Genetics	P3 2025B	2.5	LLGT27	60.8	59.6	62.0	60.0	58.1	60.8	62.9	62.1
Four Star	3X241	2.4	RR2X	60.6	60.0	61.3	60.8	58.4	60.9	59.4	63.5
Iowa State	IA20023	2.3	Conv	60.4	59.6	61.1	59.1	58.8	60.9	62.0	60.5
Viking	2418N	2.4	Conv	60.3	58.6	61.1	61.9	55.8	58.2	61.1	64.1
Dyna-Gro	S24LL98	2.4	LL	60.0	59.0	60.9	61.0	56.1	59.8	58.6	64.3
Dyna-Gro	S24XT08	2.4	RR2X	59.8	57.6	61.8	59.3	53.9	59.7	61.5	64.2
Golden Harvest	GH2552X	2.5	RR2X	59.8	57.8	60.1	60.4	58.2	54.8	62.7	62.9
P3 Genetics	P3 1924E	2.4	E3	59.7	57.7	63.0	54.7	54.9	63.3	60.4	65.2
Asgrow	AG23X9	2.3	RR2X	59.6	58.7	60.3	59.6	57.0	59.3	59.9	61.8
NK Brand	S25-V8X	2.5	RR2X	59.5	58.1	59.9	58.5	58.3	57.3	62.3	60.2
Titan Pro	23E9	2.3	E3	59.4	58.8	61.4	58.4	54.5	63.6	61.1	59.4
Renk	O-26GL	2.5	RR2X	59.3	56.9	61.2	55.1	58.2	57.3	62.9	63.4
Asgrow	AG25X0	2.5	RR2X	59.2	57.9	60.9	53.4	59.4	61.0	57.6	64.1
Titan Pro	25E8	2.5	E3	58.7	56.0	61.0	54.9	55.4	57.9	62.3	62.9
LG Seeds	C2580RX	2.3	RR2X	58.5	57.4	60.8	56.4	53.8	62.2	57.9	62.4
Dyna-Gro	S23XT90	2.3	RR2X	58.2	57.1	59.6	57.7	54.5	59.3	60.2	59.5
Viking	2340KN	2.3	Conv	58.1	57.2	59.2	56.5	56.5	58.6	61.3	57.6
NK Brand	S27-M8X	2.7	RR2X	58.0	56.0	59.4	56.9	53.8	57.3	60.1	60.8
Four Star	3X262	2.6	RR2X	57.8	56.8	59.2	56.2	55.6	58.7	60.5	58.3
Golden Harvest	GH2788X	2.7	RR2X	57.7	55.3	59.8	55.5	54.0	56.5	58.9	64.0
Credenz	CZ 2312LL	2.3	LL	57.5	57.2	59.8	58.0	50.1	63.4	56.3	59.5
Renk	Genesis G2340E	2.3	E3	57.0	57.7	58.1	61.4	49.7	61.9	59.3	53.0
Viking	N2358	2.3	Conv	52.0	50.9	53.5	53.3	45.9	53.5	49.8	57.2
Experiment Mean				59.8			58.9	56.4	60.3	60.5	62.7
Minimum Mean				52.0			53.3	45.9	53.5	49.8	53.0
Maximum Mean				63.0			62.7	62.1	64.2	65.3	67.2
LSD(0.25)				2.0			1.8	2.5	2.7	2.5	2.4
Coefficient of Variability				4.5			3.8	5.4	5.4	5.1	4.8

Table 8. Central district, 2019 district and single-location means. Early-season test, MG ≤ 2.7.

Company	Variety	MG	Herb Tech	District Means			Single Location Yield				
				Yield Bu/A	CW Yield	CE Yield	Missouri Valley	Glidden	Ames	Masonville	Clarence
Renk	Genesis G2840E	2.7	E3	67.9	68.6	63.8	75.7	72.6	57.6	53.0	80.9
Dyna-Gro	S27EN89	2.7	E3	67.7	68.9	62.6	72.4	77.3	56.9	50.5	80.5
LG Seeds	C2580RX	2.3	RR2X	67.5	66.9	63.8	71.9	74.6	54.2	61.0	76.3
Four Star	3X271	2.7	RR2X	67.3	67.8	64.2	69.8	74.0	59.7	57.3	75.7
Cornelius	CB27X81	2.7	RR2X	66.6	66.0	63.5	71.9	70.6	55.5	58.9	76.2
Credenz	CZ 2579GTLL	2.7	LLGT27	66.6	65.8	65.7	68.5	67.8	61.1	53.6	82.5
LG Seeds	LGS2417RX	2.4	RR2X	66.2	65.1	63.9	68.2	71.0	56.1	58.8	76.8
Renk	O-26GL	2.5	RR2X	66.0	65.2	63.3	68.2	72.2	55.4	57.9	76.7
Credenz	CZ 2601LL	2.6	LL	65.9	65.7	63.5	67.7	72.1	57.4	56.1	77.2
LG Seeds	LGS2444RX	2.4	RR2X	65.9	66.1	62.0	70.8	71.9	55.7	52.0	78.3
NK Brand	S25-V8X	2.5	RR2X	65.4	64.9	62.5	67.4	72.4	54.8	58.3	74.3
Golden Harvest	GH2552X	2.5	RR2X	65.0	65.1	62.6	68.0	69.6	57.7	54.0	76.2
Asgrow	AG27X0	2.7	RR2X	64.9	65.4	60.8	68.8	73.5	53.7	55.2	73.4
Dyna-Gro	S25XT99	2.5	RR2X	64.8	67.4	60.2	70.5	73.4	58.3	46.8	75.4
Cornelius	CB26X78	2.6	RR2X	64.6	65.0	64.0	65.9	65.5	63.4	53.3	75.3
Pioneer	P23A32X	2.3	RR2X	64.4	64.3	61.7	67.5	69.1	56.3	53.7	75.1
Renk	RS248NX	2.4	RR2X	64.2	63.5	62.6	63.3	70.6	56.6	55.0	76.3
Viking	O.2518	2.5	Conv	64.2	64.0	59.9	69.5	72.8	49.7	54.0	76.0
Iowa State	IA20023	2.3	Conv	64.1	64.7	61.1	69.2	68.7	56.1	56.8	70.3
Pioneer	P27A17X	2.7	RR2X	63.8	66.9	58.8	71.3	71.2	58.3	45.0	73.0
Four Star	3X241	2.4	RR2X	63.7	61.8	61.7	66.1	66.7	52.4	55.8	76.8
Pioneer	P25A70R	2.5	RR2Y	63.6	65.3	59.1	69.4	72.6	53.9	50.1	73.4
Dyna-Gro	S24LL98	2.4	LL	62.8	61.8	59.7	64.7	70.5	50.1	57.5	71.5
Viking	2418N	2.4	Conv	62.8	63.4	59.3	66.4	69.6	54.3	51.7	71.8
Asgrow	AG23X9	2.3	RR2X	62.7	61.7	58.8	69.5	67.5	48.3	58.3	69.8
Credenz	CZ 2230GTLL	2.2	LLGT27	62.6	62.4	59.0	67.1	68.8	51.2	52.3	73.5
Four Star	3X262	2.6	RR2X	62.5	61.2	60.9	60.9	68.6	54.0	53.9	74.9
Asgrow	AG25X0	2.5	RR2X	60.8	62.3	56.2	67.6	69.0	50.3	47.2	71.0
NK Brand	S27-M8X	2.7	RR2X	60.7	63.4	55.8	67.3	68.3	54.6	42.2	70.5
Renk	Genesis G2340E	2.3	E3	60.5	62.1	55.4	65.4	70.8	50.3	42.1	73.8
Credenz	CZ 2312LL	2.3	LL	60.3	58.4	57.9	61.2	66.1	47.8	49.0	77.0
Dyna-Gro	S23XT90	2.3	RR2X	60.1	60.3	57.3	62.8	66.1	51.9	46.7	73.2
Golden Harvest	GH2788X	2.7	RR2X	58.7	58.9	52.9	65.8	69.1	41.8	46.6	70.1
Cornelius	CB26E60	2.6	E3	58.2	56.5	55.5	64.7	61.2	43.5	47.8	75.2
Iowa State	AX19287-2-11	2.5	Conv	57.1	58.9	53.5	64.1	61.1	51.3	39.9	69.3
Experiment Mean				63.7			67.7	69.9	54.0	52.3	74.8
Minimum Mean				57.1			60.9	61.1	41.8	39.9	69.3
Maximum Mean				67.9			75.7	77.3	63.4	61.0	82.5
LSD(0.25)				2.3			2.6	2.6	3.2	4.1	2.0
Coefficient of Variability				5.0			4.5	4.3	6.8	9.4	3.2

Table 9. Central district, 2019 district and single-location means. Full-season test, MG > 2.7.

Company	Variety	MG	Herb Tech	District Means			Single Location Yield				
				Yield Bu/A	CW Yield	CE Yield	Missouri Valley	Glidden	Ames	Masonville	Clarence
P3 Genetics	P3 1928E	2.8	E3	70.5	69.9	66.2	75.9	77.4	56.5	60.1	82.0
Titan Pro	32GL9	3.2	LLGT27	70.1	69.1	67.7	69.3	78.6	59.4	63.3	80.4
Credenz	CZ 2830GTLL	2.8	LLGT27	69.8	69.6	67.5	73.8	73.9	61.1	56.3	85.1
NK Brand	S30-M9X	3.0	RR2X	69.8	69.3	66.3	72.2	77.9	58.0	57.8	83.0
P3 Genetics	P3 2028B	2.8	LLGT27	69.1	69.3	66.9	71.2	74.4	62.3	57.6	80.9
Titan Pro	28E8	2.8	E3	68.6	69.1	63.2	76.7	76.2	54.3	54.1	81.3
Credenz	CZ 3099GTLL	3.0	LLGT27	68.4	68.4	65.6	68.5	76.1	60.7	52.6	83.4
Golden Harvest	GH3088X	3.0	RR2X	68.4	69.5	65.0	72.9	73.5	62.1	52.3	80.6
Dyna-Gro	S28XT58	2.8	RR2X	68.3	68.0	65.3	72.4	74.1	57.7	63.3	74.8
Titan Pro	32E9	3.2	E3	68.0	67.6	64.8	72.4	72.9	57.5	57.5	79.3
LG Seeds	C2888RX	2.8	RR2X	67.5	68.5	62.7	70.6	77.1	57.9	55.1	75.2
LG Seeds	LGS3297RX	3.2	RR2X	67.1	67.5	63.3	72.4	73.3	56.9	51.1	81.9
Credenz	CZ 2889GTLL	2.8	LLGT27	66.8	67.7	64.6	67.1	73.3	62.6	52.0	79.0
LG Seeds	LGS3060RX	3.0	RR2X	66.7	66.8	64.3	66.6	74.6	59.1	54.7	79.0
Renk	Genesis G3140ES	3.1	E3	66.6	67.5	63.3	70.2	72.3	60.0	54.3	75.5
Golden Harvest	GH3195X	3.1	RR2X	66.6	69.2	62.5	73.7	72.2	61.8	46.7	79.1
Credenz	CZ 3100GTLL	3.1	LLGT27	66.5	68.4	62.7	69.7	75.3	60.2	49.7	78.3
Titan Pro	30E9	3.0	E3	66.4	68.0	62.1	71.7	73.3	59.0	50.3	77.0
Pioneer	P29A25X	2.9	RR2X	66.3	67.2	62.8	68.6	74.1	58.8	55.3	74.3
Asgrow	AG29X9	2.9	RR2X	66.3	66.4	62.4	69.8	73.2	56.2	55.6	75.3
Four Star	3X301	3.0	RR2X	66.0	66.7	64.5	68.5	69.0	62.6	52.9	77.9
Pioneer	P31A22X	3.1	RR2X	65.7	65.9	63.8	65.2	72.2	60.4	50.7	80.2
NK Brand	S29-K3X	2.9	RR2X	65.6	66.6	62.9	69.4	70.5	60.0	55.2	73.6
LG Seeds	LGS2989RX	2.9	RR2X	65.5	66.4	61.8	70.9	70.6	57.7	50.5	77.2
Cornelius	CB30X09	3.0	RR2X	65.5	67.1	61.1	70.3	73.9	57.1	52.3	73.9
Cornelius	CB29X90	2.9	RR2X	65.3	66.2	62.1	67.9	71.6	59.2	50.2	76.8
Asgrow	AG31X0	3.1	RR2X	65.3	63.0	65.9	64.2	64.7	60.1	59.4	78.1
Renk	RS280NX	2.8	RR2X	65.2	67.4	61.2	68.2	75.1	58.9	47.0	77.7
Titan Pro	TP-28X47	2.8	RR2X	65.2	65.8	61.2	71.4	70.4	55.5	53.9	74.3
Renk	RS309NSX	3.0	RR2X	65.0	65.1	62.0	65.3	72.9	57.0	55.1	74.0
Dyna-Gro	S32EN60	3.2	E3	65.0	66.1	61.3	70.5	69.2	58.5	49.6	75.7
Asgrow	AG30X9	3.0	RR2X	64.7	64.5	62.3	65.5	72.1	55.9	55.9	75.2
Iowa State	IA30006	3.0	Conv	61.6	62.1	58.7	64.8	68.1	53.3	50.2	72.5
Iowa State	IA3051RA12	3.0	Conv	55.1	56.5	50.5	57.3	64.5	47.8	34.4	69.3
Experiment Mean				66.4			69.6	72.9	58.4	53.4	77.7
Minimum Mean				55.1			57.3	64.5	47.8	34.4	69.3
Maximum Mean				70.5			76.7	78.6	62.6	63.3	85.1
LSD(0.25)				2.3			2.6	2.6	3.2	4.1	2.0
Coefficient of Variability				5.0			4.5	4.3	6.8	9.4	3.2



Table 10. South district, 2019 district and single-location means. Early-season test, MG ≤ 3.2.

Company	Variety	MG	Herb Tech	District Means			Single Location Yield				
				Yield Bu/A	SW Yield	SE Yield	Lewis	Corning	Milo	Batavia	Crawfordsville
LG Seeds	C2888RX	2.8	RR2X	74.2	74.3	73.0	78.7	71.3	73.1		73.0
Titan Pro	28E8	2.8	E3	73.2	73.0	71.0	79.0	71.6	68.3		73.8
LG Seeds	LGS3060RX	3.0	RR2X	72.7	71.9	73.2	73.7	70.7	71.3		75.2
Asgrow	AG32X0	3.2	RR2X	72.5	70.8	72.2	76.2	68.0	68.2		76.2
LG Seeds	LGS3297RX	3.2	RR2X	72.2	70.5	72.0	74.4	70.6	66.4		77.5
P3 Genetics	P3 2029E	2.9	E3	72.1	73.0	69.7	78.5	71.5	69.1		70.2
Credenz	CZ 2830GTLL	2.8	LLGT27	71.9	71.1	70.0	77.1	70.9	65.4		74.7
Dyna-Gro	S28XT58	2.8	RR2X	71.8	71.2	70.7	75.0	70.9	67.7		73.6
Credenz	CZ 3100GTLL	3.1	LLGT27	71.7	72.1	68.9	75.3	73.9	67.1		70.8
Credenz	CZ 3099GTLL	3.0	LLGT27	71.5	71.2	68.9	76.5	72.0	65.2		72.6
Pioneer	P29A25X	2.9	RR2X	71.2	70.1	68.6	78.6	68.0	63.8		73.3
P3 Genetics	P3 2031E	3.1	E3	71.1	70.3	70.7	73.4	69.5	67.8		73.6
Asgrow	AG29X9	2.9	RR2X	70.9	70.3	70.7	71.0	71.0	68.8		72.5
Credenz	CZ 2889GTLL	2.8	LLGT27	70.6	69.9	69.1	73.7	70.7	65.3		73.0
LG Seeds	LGS2989RX	2.9	RR2X	70.3	69.3	69.1	73.4	69.7	64.8	This test was discarded.	73.3
Pioneer	P31A22X	3.1	RR2X	70.1	68.9	69.2	71.8	70.8	64.0		74.4
Renk	Genesis G3140ES	3.1	E3	69.9	69.0	68.1	79.9	63.7	63.3		72.8
Renk	RS280NX	2.8	RR2X	69.8	68.3	69.2	77.0	63.5	64.4		74.1
Renk	RS309NSX	3.0	RR2X	69.2	68.5	66.5	74.7	68.4	62.5		70.6
Asgrow	AG30X9	3.0	RR2X	69.1	68.2	66.0	77.1	67.8	59.9		72.2
Dyna-Gro	S32EN60	3.2	E3	69.0	67.1	68.5	75.0	62.9	63.4		73.6
Four Star	3X301	3.0	RR2X	68.7	67.0	68.0	73.8	64.7	62.4		73.6
NK Brand	S29-K3X	2.9	RR2X	68.4	68.2	66.3	74.1	67.4	63.1		69.5
NK Brand	S30-M9X	3.0	RR2X	68.3	66.9	66.8	70.9	68.4	61.2		72.4
Golden Harvest	GH3088X	3.0	RR2X	67.0	66.6	65.6	66.7	70.0	63.0		68.3
Golden Harvest	GH2788X	2.7	RR2X	66.3	65.4	66.9	67.5	63.0	65.7		68.2
Iowa State	IA30006	3.0	Conv	63.5	63.0	61.1	69.1	62.8	57.0		65.1
Iowa State	AX19287-2-31	3.0	Conv	58.4	56.4	58.8	56.8	59.3	53.1		64.5
Iowa State	IA3051RA12	3.0	Conv	57.2	56.6	50.8	68.0	59.2	42.7		58.8
Experiment Mean				69.4			73.7	68.0	64.1		71.8
Minimum Mean				57.2			56.8	59.2	42.7		58.8
Maximum Mean				74.2			79.9	73.9	73.1		77.5
LSD(0.25)				2.5			2.7	3.2	2.8		2.3
Coefficient of Variability				4.2			4.4	5.5	5.3		3.8



Table 11. South district, 2019 district and single-location means. Full-season test, MG > 3.2.

Company	Variety	MG	Herb Tech	District Means			Single Location Yield				
				Yield Bu/A	SW Yield	SE Yield	Lewis	Corning	Milo	Batavia	Crawfordsville
P3 Genetics	P3 2034E	3.4	E3	74.9	74.2	72.8	80.8	73.0	68.8		76.9
Renk	RS357NX	3.5	RR2X	74.4	72.1	75.9	75.5	70.2	70.6		81.2
Titan Pro	34E8	3.4	E3	73.7	73.5	70.6	79.5	74.7	66.4		74.8
Dyna-Gro	S35EN99	3.5	E3	73.5	72.4	71.4	79.4	71.3	66.5		76.3
LG Seeds	C3550RX	3.5	RR2X	73.3	72.4	72.8	78.0	69.7	69.7		76.0
Dyna-Gro	S33XT79	3.3	RR2X	73.0	71.3	71.3	79.6	69.5	65.0		77.6
P3 Genetics	P3 2033B	3.3	LLGT27	72.7	72.7	69.3	76.9	75.9	65.3		73.4
Credenz	CZ 3480GTLL	3.4	LLGT27	72.2	70.7	72.0	72.1	72.5	67.5		76.6
Dyna-Gro	S34XT69	3.4	RR2X	72.1	70.3	71.2	78.5	67.8	64.6		77.9
Asgrow	AG33X0	3.3	RR2X	71.9	70.3	72.1	74.1	69.1	67.6		76.5
LG Seeds	LGS3600RX	3.6	RR2X	71.9	71.1	71.1	74.8	70.9	67.5		74.8
Credenz	CZ 3309GTLL	3.4	LLGT27	71.8	70.5	70.7	74.2	71.3	66.1		75.3
Titan Pro	37E9	3.7	E3	71.7	70.5	70.5	74.8	70.8	66.0		75.1
Credenz	CZ 3519GTLL	3.6	LLGT27	71.6	72.6	67.6	78.1	74.0	65.8		69.5
Cornelius	CB33X17	3.3	RR2X	71.4	69.9	70.1	74.2	71.3	64.1		76.2
Dyna-Gro	S37EN39	3.7	E3	71.2	70.6	69.4	70.9	75.3	65.6		73.2
P3 Genetics	P3 2036E	3.6	E3	71.1	71.0	68.9	75.0	71.7	66.3		71.5
Pioneer	P33A53X	3.3	RR2X	70.5	68.7	69.8	76.0	66.2	64.0		75.6
Pioneer	P37A27X	3.7	RR2X	70.3	67.3	71.0	70.7	68.2	62.9	This test was discarded.	79.0
Golden Harvest	GH3728X	3.7	RR2X	70.1	67.9	70.2	69.5	70.5	63.7		76.7
Renk	O-28GL	3.3	RR2X	69.6	69.8	66.4	78.0	67.4	63.9		68.9
Credenz	CZ 3750GTLL	3.7	LLGT27	69.6	68.4	67.9	72.2	70.7	62.3		73.5
LG Seeds	LGS3777RX	3.7	RR2X	69.1	66.8	71.4	63.5	71.0	66.0		76.8
Renk	RS379NSX	3.7	RR2X	69.1	66.7	69.4	65.8	71.6	62.7		76.1
MorSoy	MS 3747 RXT	3.7	RR2X	69.1	67.7	67.2	69.5	71.9	61.7		72.7
NK Brand	S37-A4X	3.7	RR2X	69.0	67.4	68.3	72.2	67.3	62.8		73.7
Asgrow	AG34X0	3.4	RR2X	69.0	67.4	69.3	71.3	65.7	65.2		73.3
Asgrow	AG35X0	3.5	RR2X	68.9	67.4	68.8	72.7	64.8	64.8		72.8
Renk	Genesis G3741ES	3.9	E3	68.6	67.5	69.2	72.0	64.6	66.0		72.5
NK Brand	S35-K9X	3.5	RR2X	68.2	66.2	68.1	68.2	67.5	62.8		73.4
MorSoy	MS 3907 RXT	3.9	RR2X	68.1	66.2	69.1	65.5	69.5	63.5		74.7
Cornelius	CB38X89	3.8	RR2X	67.7	65.6	70.0	62.5	67.9	66.4		73.7
Golden Harvest	GH3934X	3.9	RR2X	67.7	66.2	66.7	64.2	72.1	62.2		71.1
P3 Genetics	P3 2039E	3.9	E3	67.6	67.0	68.3	63.4	70.5	67.0		69.6
MorSoy	MS 4117 RXT	3.8	RR2X	66.6	64.9	65.7	67.4	67.5	59.9		71.5
Credenz	CZ 3660GTLL	3.6	LLGT27	66.2	64.5	63.2	73.0	64.8	55.6		70.9
Credenz	CZ 3840GTLL	3.8	LLGT27	66.2	64.9	64.2	70.8	65.9	57.9		70.5
Credenz	CZ 3929GTLL	3.9	LLGT27	61.2	62.0	58.7	62.6	65.1	58.2		59.2
Iowa State	AX19287-2-10	3.5	Conv	60.2	57.2	60.9	61.4	57.4	52.9		68.9
Experiment Mean				69.9			72.0	69.4	64.3		73.8
Minimum Mean				60.2			61.4	57.4	52.9		59.2
Maximum Mean				74.9			80.8	75.9	70.6		81.2
LSD(0.25)				2.5			2.7	3.2	2.8		2.3
Coefficient of Variability				4.2			4.4	5.5	5.3		3.8

Table 12. Entrant Information.

Asgrow: Bayer Crop Science, St. Louis, MO			www.dekalbasgrowdeltapine.com				(800) 768-6387	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
AG18X0	RR2X	Other	X					
AG19X0	RR2X	Other	X					
AG20X9	RR2X	Other	X					
AG22X9	RR2X	Other	X					
AG23X9	RR2X	Other		X	X			
AG24X9	RR2X	Other		X				
AG25X0	RR2X	Other		X	X			
AG27X0	RR2X	Other		X	X			
AG29X9	RR2X	Other				X	X	
AG30X9	RR2X	Other				X	X	
AG31X0	RR2X	Other				X		
AG32X0	RR2X	Other					X	
AG33X0	RR2X	Other						X
AG34X0	RR2X	Other						X
AG35X0	RR2X	Other						X

Cornelius: Cornelius Seed, Bellevue, IA			www.corneliusseed.com				(800) 218-1862	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
CB18X80	RR2X	CMV+ILVO	X					
CB20X22	RR2X	CMV+ILVO	X					
CB21X55	RR2X	CMV+ILVO	X					
CB24X64	RR2X	CMV+ILVO		X				
CB26E60	E3	CMV+ILVO			X			
CB26X78	RR2X	CMV+ILVO			X			
CB27X81	RR2X	CMV+ILVO			X			
CB29X90	RR2X	CMV+ILVO				X		
CB30X09	RR2X	CMV+ILVO				X		
CB33X17	RR2X	CMV+ILVO						X
CB38X89	RR2X	CMV+ILVO						X



Table 12. Entrant Information. Continued

Credenz: BASF, Durham, NC			www.agriculture.basf.com				(712) 789-9476	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
CZ 1549GTLL	LLGT27	PV+ILVO	X					
CZ 1738LL	LL	PV+ILVO	X					
CZ 1859GTLL	LLGT27	PV+ILVO	X					
CZ 2101LL	LL	PV+ILVO	X					
CZ 2230GTLL	LLGT27	PV+ILVO		X	X			
CZ 2312LL	LL	PV+ILVO		X	X			
CZ 2579GTLL	LLGT27	PV+ILVO		X	X			
CZ 2601LL	LL	PV+ILVO		X	X			
CZ 2830GTLL	LLGT27	PV+ILVO				X	X	
CZ 2889GTLL	LLGT27	PV+ILVO				X	X	
CZ 3099GTLL	LLGT27	PV+ILVO				X	X	
CZ 3100GTLL	LLGT27	PV+ILVO				X	X	
CZ 3309GTLL	LLGT27	PV+ILVO						X
CZ 3519GTLL	LLGT27	PV+ILVO						X
CZ 3660GTLL	LLGT27	PV+ILVO						X
CZ 3750GTLL	LLGT27	PV+ILVO						X
CZ 3840GTLL	LLGT27	PV+ILVO						X
CZ 3929GTLL	LLGT27	PV+ILVO						X

Dyna-Gro: Crop Production Services, Wall Lake, IA			www.dynagroseed.com				(712) 664-2444	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
S19XT30	RR2X	E-VIP	X					
S21EN70	E3	E-VIP	X					
S21XT49	RR2X	E-VIP	X					
S23XT90	RR2X	E-VIP		X	X			
S24LL98	LL	E-VIP		X	X			
S24XT08	RR2X	E-VIP		X				
S25XT99	RR2X	E-VIP			X			
S27EN89	E3	E-VIP			X			
S28XT58	RR2X	E-VIP				X	X	
S32EN60	E3	E-VIP				X	X	
S33XT79	RR2X	E-VIP						X
S34XT69	RR2X	E-VIP						X
S35EN99	E3	E-VIP						X
S37EN39	E3	E-VIP						X

Four Star: Four Star Seed Co., Logan, IA			www.4starseed.com				(712) 644-1400	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
3X221	RR2X	Spir348	X					
3X241	RR2X	Spir348		X	X			
3X262	RR2X	Spir348		X	X			
3X271	RR2X	Spir348		X	X			
3X301	RR2X	Spir348				X	X	
EX 3112	RR2X	Spir348	X					
EXP 3110	RR2X	Spir348	X					

Table 12. Entrant Information. Continued

Golden Harvest: Syngenta, Minnetonka, MN			www.goldenharvestseeds.com				(612) 656-8152	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
GH19 15X	RR2X	Clar+Mer	X					
GH2230X	RR2X	Clar+Mer	X					
GH2552X	RR2X	Clar+Mer		X	X			
GH2788X	RR2X	Clar+Mer		X	X		X	
GH3088X	RR2X	Clar+Mer				X	X	
GH3195X	RR2X	Clar+Mer				X		
GH3728X	RR2X	Clar+Mer						X
GH3934X	RR2X	Clar+Mer						X

Iowa State: Iowa State University, Ames, IA			www.CAD.iastate.edu				(515) 294-9442	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
AR17-179015	Conv	CMV	X					
AR17-279009	Conv	CMV	X					
AX19287-2-10	Conv	CMV						X
AX19287-2-11	Conv	CMV			X			
AX19287-2-31	Conv	CMV					X	
AX19287-2-35	Conv	CMV	X					
IA10008	Conv	CMV	X					
IA10012	Conv	CMV	X					
IA20023	Conv	CMV		X	X			
IA2102	Conv	CM	X					
IA2112RA12	Conv	CM	X					
IA30006	Conv	CMV				X	X	
IA3051RA12	Conv	CM				X	X	

LG Seeds: LG Seeds, Elmwood, IL			www.lgseeds.com				(800) 752-6847	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
C2580RX	RR2X	ILVO		X	X			
C2888RX	RR2X	ILVO				X	X	
C3550RX	RR2X	ILVO						X
LGS1635RX	RR2X	ILVO	X					
LGS1776RX	RR2X	ILVO	X					
LGS2007RX	RR2X	ILVO	X					
LGS2417RX	RR2X	ILVO		X	X			
LGS2444RX	RR2X	ILVO		X	X			
LGS2989RX	RR2X	ILVO				X	X	
LGS3060RX	RR2X	ILVO				X	X	
LGS3297RX	RR2X	ILVO				X	X	
LGS3600RX	RR2X	ILVO						X
LGS3777RX	RR2X	ILVO						X

Table 12. Entrant Information. *Continued*

MorSoy: MFA Inc., Columbia, MO

www.morsoy.com

(573) 876-5285

Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
MS 3747 RXT	RR2X	CMV						X
MS 3907 RXT	RR2X	CMV						X
MS 4117 RXT	RR2X	CMV						X

NK Brand: Syngenta, Minnetonka, MN

www.nkcorn.com

(262) 220-3015

Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
S14-U9X	RR2X	CCB	X					
S21-W8X	RR2X	CCB	X					
S25-V8X	RR2X	CCB		X	X			
S27-M8X	RR2X	CCB		X	X			
S29-K3X	RR2X	CCB				X	X	
S30-M9X	RR2X	CCB				X	X	
S35-K9X	RR2X	CCB						X
S37-A4X	RR2X	CCB						X

Photo by Kelsey Caltrider



Table 12. Entrant Information. *Continued*

P3 Genetics: Cornelius Seed, Bellevue, IA			www.corneliusseed.com				(800) 218-1862	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
P3 1920E	E3	CMV+ILVO	X					
P3 1924E	E3	CMV+ILVO		X				
P3 1928E	E3	CMV+ILVO				X		
P3 2018E	E3	CMV+ILVO	X					
P3 2021E	E3	CMV+ILVO	X					
P3 2023E	E3	CMV+ILVO	X					
P3 2025B	LLGT27	CMV+ILVO		X				
P3 2028B	LLGT27	CMV+ILVO				X		
P3 2029E	E3	CMV+ILVO					X	
P3 2031E	E3	CMV+ILVO					X	
P3 2033B	LLGT27	CMV+ILVO						X
P3 2034E	E3	CMV+ILVO						X
P3 2036E	E3	CMV+ILVO						X
P3 2039E	E3	CMV+ILVO						X



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Table 12. Entrant Information. Continued

Pioneer: Corteva Agriscience, Johnston, IA			www.pioneer.com				(800) 772-2721	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
P21A28X	RR2X	CMV	X					
P23A32X	RR2X	CMV		X	X			
P25A70R	RR2Y	CMV		X	X			
P27A17X	RR2X	CMV		X	X			
P29A25X	RR2X	CMV				X	X	
P31A22X	RR2X	CMV				X	X	
P33A53X	RR2X	CMV						X
P37A27X	RR2X	CMV						X

Renk: Renk Seed Co., Sun Prairie, WI			www.renkseed.com				(800) BUY RENK	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
Genesis G2340E	E3	ILVO		X	X			
Genesis G2840E	E3	ILVO			X			
Genesis G3140ES	E3	ILVO				X	X	
Genesis G3741ES	E3	CM						X
O-26GL	RR2X	ILVO		X	X			
O-28GL	RR2X	ILVO						X
RS213NR2	LLGT27	ILVO	X					
RS248NX	RR2X	CM		X	X			
RS280NX	RR2X	ILVO				X	X	
RS309NSX	RR2X	CM				X	X	
RS357NX	RR2X	CM						X
RS379NSX	RR2X	CM						X

Titan Pro: Titan Pro SCI, Inc., Clear Lake, IA			www.titanprosci.com				(641) 357-7283	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
19E8	E3	INT-STE+ILVO	X					
20E9	E3	INT-STE+ILVO	X					
20GL8	LLGT27	INT-STE+ILVO	X					
22E8	E3	INT-STE+ILVO	X					
23E9	E3	INT-STE+ILVO		X				
25E8	E3	INT-STE+ILVO		X				
28E8	E3	INT-STE+ILVO				X	X	
30E9	E3	INT-STE+ILVO				X		
32E9	E3	INT-STE+ILVO				X		
32GL9	LLGT27	INT-STE+ILVO				X		
34E8	E3	INT-STE+ILVO						X
37E9	E3	INT-STE+ILVO						X
TP-24X87	RR2X	INT-STE+ILVO		X				
TP-28X47	RR2X	INT-STE+ILVO				X		

Table 12. Entrant Information. *Continued*

Viking: Albert Lea Seed House, Albert Lea, MN			www.alseed.com				(800) 352-5247	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
2018N	Conv	CM	X					
2155N	Conv	CM	X					
2188AT12N	Conv	CM	X					
2340KN	Conv	CM		X				
2418N	Conv	CM		X	X			
N2358	Conv	None		X				
O.2518	Conv	None			X			



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