

2018

# SOYBEAN

## Iowa Crop Performance Tests



**IOWA STATE UNIVERSITY**

**Department of Agronomy**

*A summary of replicated research by Iowa Crop Improvement Association, Iowa's Official Variety Trials.*





# 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](http://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](http://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.





## IOWA STATE UNIVERSITY

### Department of Agronomy

©2018 by Iowa Crop Improvement Association.  
Used with permission.

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](http://croptesting.iastate.edu).

Iowa State University does not discriminate on the basis of race, color, age, ethnicity, religion, national origin, pregnancy, sexual orientation, gender identity, genetic information, sex, marital status, disability, or status as a U.S. Veteran. Inquiries regarding non-discrimination policies may be directed to Office of Equal Opportunity, 3410 Beardshear Hall, 515 Morrill Road, Ames, Iowa 50011, Tel. (515) 294-7612, Hotline (515) 294-1222, email [eooffice@iastate.edu](mailto:eooffice@iastate.edu).

CROP 3149 Revised November 2018

## Acknowledgments

This report would not be possible without the cooperative efforts of many organizations and people. Thanks to the following for helping make this testing program a success: Ryan Frasch and Graydon Marzen for tireless work and brilliant ideas throughout the year; a special note of thanks and gratitude to Bill Fjelland, who retired this season after 12 years with ICPT; new staff members Ryan Budnik and Shawn Bryant, who bring a new level of technical expertise to our program; Jim Buettel of NuTech and George Kadrmas of Monsanto for providing seed for fill plots and border rows; all of our cooperators, for without their help, our lives would be more difficult—they are listed in Table 1; David Loupee and Mike Sankey, who put in long hours of hard work for very low pay; Jode Edwards, for statistical support; students Faith Beutler and Michael Halbur for assisting with seed counting, experiment layouts, and planting—their efforts contributed greatly to the success of our mission; Nuwan De Silva for software design and support, and Kelly Iverson of ICIA who makes it all look good. A special thanks to all of the companies who enter varieties in our test. They are listed at the end of this report in Table 12. It is their participation and support that continues to make these tests an invaluable resource for growers.

## For More Information

- For more information about the *Iowa Crop Performance Tests*, see [croptesting.iastate.edu](http://croptesting.iastate.edu).
- For information about Iowa Crop Improvement Association, visit [iowacrop.org](http://iowacrop.org).
- For questions or comments contact:  
**Jim Rouse**  
Executive Director  
Iowa Crop Improvement Association  
4611 Mortensen Rd, Suite 101  
Ames, IA 50014  
[croptesting@iastate.edu](mailto:croptesting@iastate.edu)

# Contents

## General Information

Figure 1. Test locations for the 2018 Iowa Crop Performance Tests—Soybean	5
Table 1. General information of the 2018 soybean test	6
Table 2. Seed treatment and other data descriptions	6

## 2017-2018 Two-Year Means

Table 3. North District	7
Table 4. Central District	8
Table 5. South District	9

## 2018 District and Single-Location Means

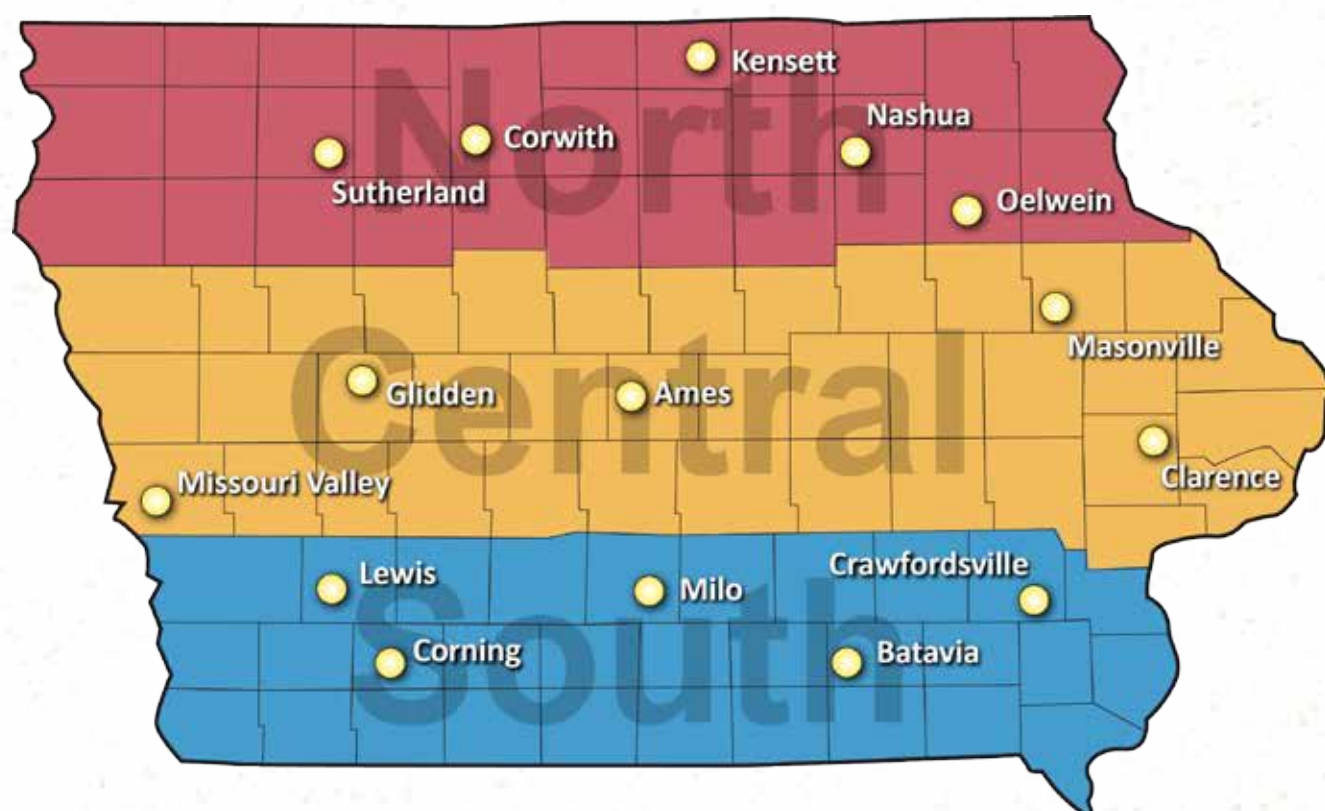
Table 6. North District, Early-season test	10
Table 7. North District, Full-season test	11
Table 8. Central District, Early-season test	12
Table 9. Central District, Full-season test	13
Table 10. South District, Early-season test	14
Table 11. South District, Full-season test	15

## Participants

Table 12. Entrant Information	16
-------------------------------	----

**Figure 1.**

## Test locations for the 2018 Iowa Crop Performance Tests—Soybean



**Table 1. General information for the 2018 soybean test.**

Location and Cooperator	Soil Type	Planting Date	Harvest Date	Avg Yield Bu/Acre
<b>North</b>				
Sutherland, Terry Tuttle	Primghar silty clay loam	25-May	29-Oct	68.0
Corwith, Norm & Jonathan Chambers	Canisteo clay loam	29-May	23-Oct	50.0
Kensett, Justin Faber	Clarion / Angus loam	22-May	22-Oct	47.7
Nashua, Ken Pecinovsky	Kenyon loam	18-May	21-Oct	56.9
Oelwein, Heath Geiselman	Readlyn silt loam	29-May	22-Oct	58.1
<b>Central</b>				
Missouri Valley, Dean McIntosh	Kennebec silt loam	10-May	19-Oct	63.5
Glidden, David Theilen	Nicollet loam	10-May	20-Oct	60.8
Ames, Kevin Scholbrock	Canisteo clay loam	14-May	25-Oct	52.6
Masonville, Dennis Lindsay	Bassett loam / Kenyon loam	17-May	16-Oct	59.2
Clarence, Dave Elijah	Garwin / Muscatine / Tama silty clay	18-May	18-Oct	66.5
<b>South</b>				
Lewis, Dennis Jipsen	Melia / Marshall silty clay loam	10-May	23-Oct	61.9
Corning, David Fuller	Winterset silty clay loam	10-May	22-Oct	54.1
Milo, Craig & Adam Hill	Macksburg silty clay loam	17-May	24-Oct	42.1
Batavia, Allen McElderry	Grundy silty clay loam	23-May	4-Oct	67.3
Crawfordsville, Myron Rees	Mahaska silty clay loam	23-May	24-Oct	60.8

**Table 2. Seed treatment and other data descriptions.**

<b>IST: Insecticide Seed Treatment</b>		<b>Herb Tech: Herbicide Technology</b>	
<b>ACL</b>	Acceleron	<b>B-GT</b>	Balance GT
<b>AGSHLD</b>	AgriShield	<b>Conv</b>	Conventional, no herbicide traits
<b>BC+</b>	Bonus Coated +	<b>LL</b>	Liberty Link
<b>CCB</b>	Clariva Complete Beans	<b>RR1</b>	Roundup Ready 1
<b>CM</b>	CruiserMaxx	<b>RR2X</b>	Roundup Ready 2 Xtend
<b>CMV</b>	CruiserMaxx Vibrance	<b>RR2Y</b>	Roundup Ready 2 Yield
<b>E-VIP</b>	Elevate VIP		
<b>ESC</b>	Escalate		
<b>ILVO</b>	ILeVO		
<b>INT-STE</b>	Intego Suite	<b>Yield:</b> Bushels per acre, adjusted to 13% moisture basis	
<b>LUM</b>	Lumisena	<b>MG:</b> Maturity group indicated by variety name	
<b>MSC</b>	Miller ShieldCoat		
<b>PPST</b>	Pioneer Premium Seed Treatment		
<b>PV</b>	Poncho-VOTiVO		
<p>This year we evaluated over 160 varieties from 21 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.</p>			

**Table 3. North district 2-year means, 2017-2018.**
**North early-season varieties, MG  $\leq$  2.2**

Company	Variety	MG	Herb Tech	Yield Bu/A	NW Yield Bu/A	NE Yield Bu/A	AGV \$
Credenz	CZ 1738 LL	1.7	LL	53.0	54.0	50.5	424
Cornelius	CB18X80	1.8	RR2X	56.5	56.0	56.9	452
Cornelius	CB19R71	1.9	RR2Y	58.0	58.1	57.0	464
Viking	2299N	1.9	Conv	57.6	57.7	56.2	461
Dairyland	DSR-1950/R2Y	1.9	RR2Y	56.4	56.3	55.5	451
Mycogen	5N194R2	1.9	RR2Y	56.3	56.7	55.4	450
Renk	RS207NX	2.0	RR2X	58.3	58.5	57.0	467
Cornelius	CB20X56	2.0	RR2X	58.1	57.7	57.8	465
Cornelius	CB20R44	2.0	RR2Y	57.8	57.3	56.6	463
Viking	2018N	2.0	Conv	56.6	55.4	56.1	453
Mycogen	5N206R2	2.0	RR2Y	56.1	56.4	55.0	448
Dairyland	DSR-2197/R2Y	2.1	RR2Y	60.3	59.2	60.2	483
Viking	2155N	2.1	Conv	59.8	59.8	58.3	478
Mycogen	5N211R2	2.1	RR2Y	59.7	58.1	59.0	478
Roeschley	2162CRX	2.1	RR2X	59.0	59.2	56.9	472
Dyna-Gro	S21XT77	2.1	RR2X	56.9	56.5	55.3	455
Dairyland	DSR-2110/R2Y	2.1	RR2Y	54.9	54.6	52.9	439
Titan Pro	TP-21L15	2.1	LL	54.4	54.3	53.3	435
Cornelius	CB22R88	2.2	RR2Y	58.4	56.7	57.6	468
Pioneer	P22T73R	2.2	RR1	57.2	56.8	56.6	458
Viking	2188AT12N	2.2	Conv	56.8	57.8	54.4	455
<b>Experiment Mean</b>				<b>57.4</b>	<b>57.2</b>	<b>56.5</b>	
<b>LSD(0.25)</b>				<b>2.0</b>	<b>2.1</b>	<b>2.9</b>	

**North full-season varieties, MG  $>$  2.2**

Company	Variety	MG	Herb Tech	Yield Bu/A	NW Yield Bu/A	NE Yield Bu/A	AGV \$
Dairyland	DSR-2330/R2Y	2.3	RR2Y	57.6	57.2	56.9	461
Dyna-Gro	S23XT78	2.3	RR2X	56.1	56.1	54.7	449
Credenz	CZ 2312 LL	2.3	LL	55.6	55.2	55.4	445
Titan Pro	TP-24X87	2.4	RR2X	60.7	60.4	59.8	486
Cornelius	CB24X64	2.4	RR2X	60.3	60.4	58.9	483
Renk	RS248NX	2.4	RR2X	58.7	59.1	57.5	469
Titan Pro	TP-24L27	2.4	LL	58.6	57.3	58.8	469
Credenz	CZ 2408 LL	2.4	LL	58.1	57.4	58.7	465
Cornelius	CB24R82	2.4	RR2Y	58.0	56.8	57.5	464
Pioneer	P24T93R	2.4	RR2X	57.3	56.6	56.8	458
Credenz	CZ 2601 LL	2.6	LL	60.0	59.8	59.3	480
Cornelius	CB27X81	2.7	RR2X	60.7	60.3	60.0	485
Four Star	3X271	2.7	RR2X	59.3	58.7	58.2	474
Iowa State	IA2102	2.7	Conv	58.0	58.9	55.9	464
Iowa State	IA2112RA12	2.7	Conv	57.1	58.2	55.0	457
<b>Experiment Mean</b>				<b>57.4</b>	<b>57.2</b>	<b>56.5</b>	
<b>LSD(0.25)</b>				<b>2.0</b>	<b>2.1</b>	<b>2.9</b>	



**Table 4. Central district 2-year means, 2017-2018.**
**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 \$
Credenz	CZ 2312 LL	2.3	LL	58.8	60.5	57.1	470
Dyna-Gro	S23XT78	2.3	RR2X	58.8	60.6	57.4	470
Titan Pro	TP-24X87	2.4	RR2X	64.1	65.1	63.0	512
Cornelius	CB24X64	2.4	RR2X	62.8	64.2	61.0	503
Dyna-Gro	S24LL98	2.4	LL	62.4	64.4	61.3	500
Titan Pro	TP-24L27	2.4	LL	61.9	61.8	60.4	495
Renk	RS248NX	2.4	RR2X	61.5	62.5	59.7	492
Pioneer	P24T93R	2.4	RR2X	60.8	60.9	60.5	486
Cornelius	CB24R82	2.4	RR2Y	60.6	59.5	59.5	485
Mycogen	5N245R2	2.4	RR2Y	60.3	61.1	59.0	482
Credenz	CZ 2408 LL	2.4	LL	60.0	60.7	58.0	480
Credenz	CZ 2601 LL	2.6	LL	62.8	62.7	62.8	502
Miller	2659CLL	2.6	LL	60.8	61.5	59.8	487
Cornelius	CB27X81	2.7	RR2X	64.2	64.9	62.6	514
Four Star	3X271	2.7	RR2X	62.5	63.4	60.2	500
Iowa State	IA2102	2.7	Conv	58.9	61.3	56.6	471
Iowa State	IA2112RA12	2.7	Conv	55.1	57.0	53.7	441
<b>Experiment Mean</b>				<b>60.6</b>	<b>61.4</b>	<b>59.5</b>	
<b>LSD(0.25)</b>				<b>2.6</b>	<b>3.0</b>	<b>3.6</b>	

**Central full-season varieties, MG  $>$  2.7**

Company	Variety	MG	Herb Tech	Yield Bu/A	CW Yield Bu/A	CE Yield Bu/A	AGV \$
Titan Pro	TP-28X47	2.8	RR2X	65.4	66.8	63.4	524
Dyna-Gro	S28XT58	2.8	RR2X	63.7	65.1	62.3	510
Cornelius	CB28R58	2.8	RR2Y	63.2	63.0	63.0	506
Renk	RS288NX	2.8	RR2X	62.2	63.6	59.8	498
Pioneer	P28T08R	2.8	RR1	60.6	59.2	61.3	485
Iowa State	IA2102RA12	2.8	Conv	55.5	56.1	56.8	444
Credenz	CZ 2915 LL	2.9	LL	62.2	62.3	61.5	497
Cornelius	CB29R69	2.9	RR2Y	61.2	60.7	60.3	489
Dairyland	DSR-2909/R2Y	2.9	RR2Y	60.5	61.1	60.6	484
Dairyland	DSR-3028/R2Y	3.0	RR2Y	57.6	58.6	56.5	461
Dairyland	DSR-3250/R2Y	3.2	RR2Y	60.4	61.1	60.7	483
Renk	RS328NX	3.2	RR2X	57.7	55.9	59.4	462
<b>Experiment Mean</b>				<b>60.6</b>	<b>61.4</b>	<b>59.5</b>	
<b>LSD(0.25)</b>				<b>2.6</b>	<b>3.0</b>	<b>3.6</b>	



**Table 5. South district 2-year means, 2017-2018.****South early-season varieties, MG ≤ 3.2**

Company	Variety	MG	Herb Tech	Yield Bu/A	SW Yield Bu/A	SE Yield Bu/A	AGV \$
Titan Pro	TP-28X47	2.8	RR2X	61.1	54.4	59.5	489
Cornelius	CB28R58	2.8	RR2Y	59.0	55.6	57.9	472
Dyna-Gro	S28XT58	2.8	RR2X	58.6	54.3	59.2	469
LG Seeds	C2888RX	2.8	RR2X	58.6	52.3	57.7	469
Renk	RS288NX	2.8	RR2X	57.0	50.6	55.0	456
Merschman	Sioux 1628LL	2.8	LL	56.9	53.8	57.7	455
Pioneer	P28T08R	2.8	RR1	53.7	52.1	55.1	429
Iowa State	IA2102RA12	2.8	Conv	46.2	45.5	50.7	370
Credenz	CZ 2915 LL	2.9	LL	55.8	52.8	56.9	447
Renk	RS328NX	3.2	RR2X	55.8	52.6	55.7	446
<b>Experiment Mean</b>				<b>56.2</b>	<b>52.8</b>	<b>56.8</b>	
<b>LSD(0.25)</b>				<b>2.0</b>	<b>3.1</b>	<b>2.6</b>	

**South full-season varieties, MG > 3.2**

Company	Variety	MG	Herb Tech	Yield Bu/A	SW Yield Bu/A	SE Yield Bu/A	AGV \$
Titan Pro	TP-34X86	3.4	RR2X	61.4	57.2	61.0	491
Renk	RS348NX	3.4	RR2X	54.2	51.4	55.5	434
LG Seeds	C3550RX	3.5	RR2X	60.6	56.8	61.3	485
Renk	RS357NX	3.5	RR2X	56.7	54.5	58.6	454
Dairyland	DSR-3555/R2Y	3.5	RR2Y	56.0	52.3	56.6	448
Miller	3570CBGT	3.5	B-GT	55.1	55.6	58.3	441
Credenz	CZ 3601 LL	3.6	LL	58.2	53.4	59.0	466
Merschman	Monroe 1736LL	3.6	LL	57.7	53.4	55.5	462
Asgrow	AG36X6	3.6	RR2X	55.4	54.9	57.3	443
Hoegemeyer	HPT 3679 NX	3.6	RR2X	54.9	50.8	56.3	439
Dyna-Gro	S37XT28	3.7	RR2X	54.8	52.0	56.5	439
Merschman	Truman 1438LL	3.8	LL	57.1	51.4	55.2	457
Hoegemeyer	HPT LL3813 N	3.8	LL	53.9	49.6	53.9	431
Asgrow	AG39X7	3.9	RR2X	56.1	52.6	57.6	448
Renk	RS398NX	3.9	RR2X	51.2	50.3	52.6	410
<b>Experiment Mean</b>				<b>56.2</b>	<b>52.8</b>	<b>56.8</b>	
<b>LSD(0.25)</b>				<b>2.0</b>	<b>3.1</b>	<b>2.6</b>	



**Table 6. North district, 2018 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
Titan Pro	TP 16L86	1.6	LL	52.0	52.7	48.5	65.4	48.9	43.8	51.8	50.0
LG Seeds	LGS1635RX	1.6	RR2X	51.3	46.8	51.7	60.0	40.5	39.9	55.1	60.2
Credenz	CZ 1738 LL	1.7	LL	48.5	49.6	43.5	62.5	49.1	37.3	50.9	42.5
Cornelius	CB18X80	1.8	RR2X	56.7	53.6	58.7	62.0	45.7	53.2	63.1	59.7
Iowa State	AR15-158072	1.8	Conv	53.5	50.1	53.2	65.7	42.2	42.4	57.4	59.6
Asgrow	AG18X9	1.8	RR2X	52.6	50.4	50.3	66.0	45.8	39.5	55.9	55.5
Cornelius	CB19R71	1.9	RR2Y	56.0	56.1	53.2	70.3	50.1	47.8	55.7	56.0
Dairyland	DSR-1950/R2Y	1.9	RR2Y	54.5	53.0	52.2	70.7	45.9	42.5	53.2	60.8
Four Star	3X190	1.9	RR2X	54.5	55.4	52.5	64.0	51.5	50.8	49.3	57.6
Mycogen	5N194R2	1.9	RR2Y	54.3	53.8	51.7	68.9	48.7	43.8	55.6	55.6
Viking	2299N	1.9	Conv	53.8	54.2	51.3	67.7	48.1	46.9	49.6	57.5
LG Seeds	LGS2007RX	2.0	RR2X	58.3	55.7	58.3	65.3	52.3	49.4	63.8	61.7
Titan Pro	TP 20X98	2.0	RR2X	58.0	55.4	58.6	64.3	49.0	52.8	65.5	57.6
Cornelius	CB20R44	2.0	RR2Y	57.4	56.3	55.3	69.4	51.7	47.7	58.8	59.3
Renk	RS207NX	2.0	RR2X	56.9	56.7	55.0	68.4	51.9	49.7	57.6	57.6
Asgrow	AG20X9	2.0	RR2X	56.4	54.6	55.2	68.9	48.2	46.9	60.3	58.3
Viking	2018N	2.0	Conv	56.2	53.4	54.3	70.9	46.4	43.0	57.8	62.2
Cornelius	CB20X56	2.0	RR2X	55.8	55.1	55.8	65.2	47.1	52.9	56.5	58.1
Mycogen	5N206R2	2.0	RR2Y	53.6	53.1	51.9	66.4	45.5	47.4	52.5	55.6
Pioneer	P21A28X	2.1	RR2X	60.0	55.7	60.2	66.5	54.3	46.3	69.5	64.8
Mycogen	MY210L5	2.1	LL	59.5	56.6	59.0	69.0	51.0	49.7	63.6	63.6
Dairyland	DSR-2197/R2Y	2.1	RR2Y	59.3	57.3	58.6	71.6	49.5	50.7	60.0	65.0
Roeschley	2162CRX	2.1	RR2X	58.9	58.5	55.6	75.2	52.3	47.9	60.7	58.3
Mycogen	5N211R2	2.1	RR2Y	58.7	55.6	57.6	71.5	48.4	46.9	61.6	64.1
Viking	2155N	2.1	Conv	58.4	59.3	54.7	72.6	55.3	50.0	54.3	59.6
Cornelius	CB21X55	2.1	RR2X	57.8	56.2	57.9	64.2	51.1	53.2	64.3	56.2
Renk	RS219NX	2.1	RR2X	56.7	54.3	57.5	63.8	46.7	52.3	59.3	60.8
Dyna-Gro	S21XT49	2.1	RR2X	55.4	52.9	55.1	64.7	47.1	46.9	57.8	60.6
Dyna-Gro	S21XT77	2.1	RR2X	55.0	53.5	52.0	69.8	48.2	42.7	56.3	57.1
Dairyland	DSR-2110/R2Y	2.1	RR2Y	54.4	53.7	51.1	68.4	50.7	42.1	53.0	58.2
Titan Pro	TP-21L15	2.1	LL	53.4	52.2	51.2	66.7	45.9	43.9	50.5	59.4
Cornelius	CB22X32	2.2	RR2X	57.4	56.5	56.2	65.9	52.3	51.2	60.9	56.5
Asgrow	AG22X9	2.2	RR2X	57.1	55.6	55.7	67.3	50.9	48.6	56.4	62.1
Titan Pro	TP 22X68	2.2	RR2X	57.1	57.0	54.6	68.6	53.4	48.9	59.1	55.9
Cornelius	CB22R88	2.2	RR2Y	56.5	53.0	55.7	68.1	47.6	43.3	67.3	56.6
Pioneer	P22T73R	2.2	RR1	56.4	54.8	54.9	68.0	48.7	47.9	58.4	58.4
Four Star	3X221	2.2	RR2X	56.1	56.8	53.0	69.3	52.2	48.9	53.9	56.1
LG Seeds	LGS2239RX	2.2	RR2X	55.9	56.2	53.4	67.2	51.5	49.8	56.5	54.0
Viking	2188AT12N	2.2	Conv	52.6	55.1	47.3	71.0	50.4	43.9	49.7	48.1

<b>Experiment Mean</b>	<b>55.8</b>	<b>67.5</b>	<b>49.1</b>	<b>47.0</b>	<b>57.5</b>	<b>58.0</b>
<b>Minimum Mean</b>	<b>48.5</b>	<b>60.0</b>	<b>40.5</b>	<b>37.3</b>	<b>49.3</b>	<b>42.5</b>
<b>Maximum Mean</b>	<b>60.0</b>	<b>75.2</b>	<b>55.3</b>	<b>53.2</b>	<b>69.5</b>	<b>65.0</b>
<b>LSD(0.25)</b>	<b>2.5</b>	<b>2.1</b>	<b>3.0</b>	<b>3.8</b>	<b>3.2</b>	<b>3.5</b>
<b>Coefficient of Variability</b>	<b>6.3</b>	<b>3.7</b>	<b>7.3</b>	<b>9.8</b>	<b>6.9</b>	<b>7.2</b>



**Table 7. North district, 2018 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
Asgrow	AG23X9	2.3	RR2X	57.6	56.6	54.9	70.4	53.0	46.5	59.7	58.6
Cornelius	CB23X00	2.3	RR2X	57.2	55.1	56.1	69.2	48.3	47.7	60.9	59.7
Dairyland	DSR-2330/R2Y	2.3	RR2Y	55.8	53.8	55.2	65.3	48.6	47.3	56.1	62.1
Renk	RS239NX	2.3	RR2X	54.5	52.7	53.1	64.3	48.9	45.0	56.1	58.1
Credenz	CZ 2312 LL	2.3	LL	53.8	52.8	52.6	67.4	43.0	48.1	58.7	51.0
Dyna-Gro	S23XT78	2.3	RR2X	53.3	53.4	50.6	64.4	49.7	46.1	53.9	51.7
Viking	2340KN	2.3	Conv	52.9	54.8	47.7	65.0	56.9	42.5	49.7	50.8
Titan Pro	TP-24X87	2.4	RR2X	61.3	59.8	60.9	72.0	52.4	54.9	62.4	65.3
LG Seeds	LGS2417RX	2.4	RR2X	61.1	60.5	59.1	71.5	57.1	52.8	59.5	65.0
Cornelius	CB24X64	2.4	RR2X	60.2	60.8	57.8	73.6	54.4	54.3	59.7	59.5
Renk	RS248NX	2.4	RR2X	58.9	59.7	56.5	72.3	53.4	53.4	52.3	63.7
Credenz	CZ 2408 LL	2.4	LL	58.8	57.4	58.7	65.4	53.1	53.7	57.1	65.2
Four Star	3X241	2.4	RR2X	58.5	58.7	55.7	72.1	53.9	50.0	53.9	63.2
Dyna-Gro	S24LL98	2.4	LL	58.1	56.7	57.9	67.6	49.1	53.5	57.0	63.3
Dyna-Gro	S24XT08	2.4	RR2X	57.5	58.5	54.3	72.9	51.6	50.9	48.7	63.3
Titan Pro	TP-24L27	2.4	LL	56.9	55.3	55.5	67.8	50.7	47.6	59.0	59.8
Pioneer	P24T93R	2.4	RR2X	56.6	53.9	55.8	68.1	47.8	45.8	59.3	62.3
Cornelius	CB24R82	2.4	RR2Y	55.8	53.5	54.0	66.9	50.5	43.0	59.1	60.0
Asgrow	AG24X9	2.4	RR2X	55.5	56.0	52.0	71.9	48.4	47.8	49.2	59.1
LG Seeds	LGS2444RX	2.4	RR2X	54.8	52.4	52.3	68.9	47.8	40.6	59.5	56.7
Viking	2418N	2.4	Conv	51.6	53.8	47.5	67.0	48.8	45.8	45.4	51.4
Pioneer	P25A70R	2.5	RR1	58.9	56.9	58.2	63.8	55.8	51.0	65.4	58.1
Asgrow	AG25X9	2.5	RR2X	54.0	53.3	51.3	68.8	47.1	44.0	50.3	59.6
Miller	25179LL	2.5	LL	54.0	54.2	51.2	68.3	48.2	46.2	53.4	54.1
Dyna-Gro	S25XT99	2.5	RR2X	53.4	52.6	50.6	68.6	46.8	42.2	55.0	54.7
Credenz	CZ 2601 LL	2.6	LL	60.1	59.5	58.1	71.1	55.1	52.2	60.8	61.5
Cornelius	CB26X67	2.6	RR2X	57.3	56.1	56.9	67.0	49.2	52.2	60.7	57.8
Titan Pro	26X37	2.6	RR2X	57.2	57.9	54.9	72.0	50.0	51.6	54.7	58.2
LG Seeds	LGS2680RX	2.6	RR2X	56.8	55.9	54.0	67.5	53.5	46.8	60.8	54.4
Renk	RS269X	2.6	RR2X	55.2	55.9	52.1	69.0	51.0	47.7	55.7	52.8
Four Star	EX260	2.6	RR2X	54.4	54.1	52.4	68.4	47.0	46.9	58.5	51.6
Dairyland	DSR-2616/R2Y	2.6	RR2Y	52.5	53.9	48.3	68.3	49.1	44.3	51.3	49.3
Cornelius	CB27X81	2.7	RR2X	61.1	60.7	59.8	71.2	54.8	56.3	62.2	60.9
Four Star	3X271	2.7	RR2X	60.0	59.3	57.5	70.1	56.8	50.8	63.0	58.8
LG Seeds	LGS2759RX	2.7	RR2X	57.5	55.3	56.3	66.6	51.2	48.0	59.7	61.2
Iowa State	IA2102	2.7	Conv	53.9	55.6	50.9	67.4	50.7	48.7	47.5	56.4
Iowa State	IA2112RA12	2.7	Conv	52.8	53.7	49.0	68.0	47.9	45.0	45.2	56.9
<b>Experiment Mean</b>				<b>56.5</b>			<b>68.7</b>	<b>50.8</b>	<b>48.4</b>	<b>56.2</b>	<b>58.3</b>
<b>Minimum Mean</b>				<b>51.6</b>			<b>63.8</b>	<b>43.0</b>	<b>40.6</b>	<b>45.2</b>	<b>49.3</b>
<b>Maximum Mean</b>				<b>61.3</b>			<b>73.6</b>	<b>57.1</b>	<b>56.3</b>	<b>65.4</b>	<b>65.3</b>
<b>LSD(0.25)</b>				<b>2.5</b>			<b>2.1</b>	<b>3.0</b>	<b>3.8</b>	<b>3.2</b>	<b>3.5</b>
<b>Coefficient of Variability</b>				<b>6.3</b>			<b>3.7</b>	<b>7.3</b>	<b>9.8</b>	<b>6.9</b>	<b>7.2</b>

**Table 8. Central district, 2018 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
Cornelius	CB22R88	2.2	RR2Y	60.4	57.1	59.2	62.3	60.8	48.3	58.4	70.8
Asgrow	AG23X9	2.3	RR2X	62.1	62.6	62.3	61.5	64.7	61.5	55.6	69.8
Cornelius	CB23X00	2.3	RR2X	62.1	59.3	62.4	61.3	62.2	54.4	65.9	66.9
Credenz	CZ 2312 LL	2.3	LL	59.8	58.2	59.2	60.3	60.6	53.7	62.1	61.9
Dyna-Gro	S23XT78	2.3	RR2X	58.1	57.5	56.5	61.3	60.5	50.6	53.6	65.2
Renk	RS239NX	2.3	RR2X	56.9	55.0	56.3	59.1	56.9	49.0	58.5	61.4
LG Seeds	LGS2417RX	2.4	RR2X	66.7	62.9	65.6	65.0	70.3	53.5	68.8	74.4
Titan Pro	TP-24X87	2.4	RR2X	66.5	63.1	66.9	67.2	65.4	56.6	71.4	72.7
Credenz	CZ 2408 LL	2.4	LL	65.2	63.1	65.5	66.4	64.3	58.7	67.8	70.0
Cornelius	CB24X64	2.4	RR2X	64.8	61.8	63.8	65.3	67.3	52.9	61.3	77.2
Dyna-Gro	S24LL98	2.4	LL	62.7	61.7	62.5	64.5	62.6	58.1	58.8	70.6
LG Seeds	LGS2444RX	2.4	RR2X	62.7	58.7	57.9	68.9	65.0	42.3	56.4	75.1
Renk	RS248NX	2.4	RR2X	62.4	60.9	60.9	63.3	65.6	53.7	57.0	72.0
Titan Pro	TP-24L27	2.4	LL	62.1	58.9	60.3	62.9	64.6	49.3	65.6	66.2
Cornelius	CB24R82	2.4	RR2Y	61.7	56.9	60.6	62.0	63.4	45.3	66.6	69.8
Four Star	3X241	2.4	RR2X	61.3	61.1	59.0	63.9	65.4	54.0	54.3	68.8
Asgrow	AG24X9	2.4	RR2X	60.2	58.0	59.2	62.9	59.9	51.1	57.9	68.7
Mycogen	5N245R2	2.4	RR2Y	59.8	58.5	56.4	63.5	65.2	46.7	53.4	69.2
Pioneer	P24T93R	2.4	RR2X	58.1	53.4	58.8	58.9	54.8	46.6	61.2	68.5
Pioneer	P25A70R	2.5	RR1	62.9	62.1	61.4	70.3	60.8	55.1	61.6	67.5
Dyna-Gro	S25XT99	2.5	RR2X	61.4	60.2	58.0	70.8	60.4	49.5	54.3	70.4
Asgrow	AG25X9	2.5	RR2X	60.3	60.1	60.3	61.4	60.6	58.2	55.3	67.4
Credenz	CZ 2601 LL	2.6	LL	64.1	60.8	65.2	64.2	60.5	57.7	67.1	70.7
Cornelius	CB26X67	2.6	RR2X	62.2	60.6	63.1	64.3	58.3	59.1	66.9	63.2
Hoegemeyer	LL2579 N	2.6	LL	61.9	61.7	61.6	63.2	60.5	61.4	57.1	66.3
LG Seeds	LGS2680RX	2.6	RR2X	61.3	59.8	60.9	64.1	59.7	55.6	62.7	64.5
Mycogen	MY260L4	2.6	LL	61.2	60.1	61.5	64.1	57.4	58.8	58.9	66.9
Renk	RS269X	2.6	RR2X	59.3	58.2	58.8	60.4	60.2	53.9	61.1	61.2
Titan Pro	26X37	2.6	RR2X	59.3	62.1	55.9	64.4	65.1	56.9	42.6	68.4
Miller	2659CLL	2.6	LL	58.2	56.3	55.9	63.3	59.4	46.1	55.0	66.6
Four Star	EX260	2.6	RR2X	58.1	58.2	55.3	62.1	62.8	49.8	57.5	58.7
Cornelius	CB27X81	2.7	RR2X	65.1	62.8	63.9	67.5	66.9	54.1	66.6	70.9
Four Star	3X271	2.7	RR2X	63.1	60.2	60.9	70.8	61.6	48.1	68.0	66.5
Asgrow	AG27X9	2.7	RR2X	63.0	60.7	62.2	63.0	64.9	54.1	65.5	67.1
LG Seeds	LGS2759RX	2.7	RR2X	61.9	57.7	60.5	68.3	59.4	45.4	64.2	71.9
Iowa State	IA2102	2.7	Conv	54.6	54.8	52.1	59.5	58.2	46.6	51.2	58.5
Iowa State	IA2112RA12	2.7	Conv	50.0	49.8	47.8	60.3	46.3	42.9	45.0	55.5
<b>Experiment Mean</b>				<b>61.1</b>			<b>63.8</b>	<b>61.7</b>	<b>52.4</b>	<b>59.9</b>	<b>67.6</b>
<b>Minimum Mean</b>				<b>50.0</b>			<b>58.9</b>	<b>46.3</b>	<b>42.3</b>	<b>42.6</b>	<b>55.5</b>
<b>Maximum Mean</b>				<b>66.7</b>			<b>70.8</b>	<b>70.3</b>	<b>61.5</b>	<b>71.4</b>	<b>77.2</b>
<b>LSD(0.25)</b>				<b>3.0</b>			<b>2.9</b>	<b>4.5</b>	<b>4.9</b>	<b>3.7</b>	<b>3.0</b>
<b>Coefficient of Variability</b>				<b>6.8</b>			<b>5.5</b>	<b>9.0</b>	<b>11.4</b>	<b>7.7</b>	<b>5.3</b>





**Table 9. Central district, 2018 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
LG Seeds	C2888RX	2.8	RR2X	66.8	64.3	66.0	69.8	65.4	57.8	71.1	69.0
Titan Pro	TP-28X47	2.8	RR2X	66.5	64.8	63.4	72.6	68.8	52.9	67.5	69.7
Dyna-Gro	S28XT58	2.8	RR2X	64.3	62.8	62.7	69.8	63.0	55.6	62.2	70.4
Cornelius	CB28R58	2.8	RR2Y	63.6	60.8	64.9	59.9	63.4	59.0	63.5	72.1
LG Seeds	LGS2821RX	2.8	RR2X	63.0	60.3	63.9	59.3	63.4	58.1	65.2	68.3
Renk	RS288NX	2.8	RR2X	62.9	61.2	60.7	68.1	63.9	51.5	58.9	71.6
Asgrow	AG28X9	2.8	RR2X	61.0	60.0	60.7	63.8	60.0	56.2	58.1	67.8
Pioneer	P28T08R	2.8	RR1	57.8	53.2	58.8	57.5	54.7	47.5	61.4	67.5
Roeschley	2982CRX	2.8	RR2X	56.9	58.2	54.3	63.6	58.4	52.7	47.3	62.9
Iowa State	IA2102RA12	2.8	Conv	50.9	49.4	52.2	53.9	44.5	49.7	44.3	62.7
Credenz	CZ 2915 LL	2.9	LL	64.2	62.3	63.8	63.9	66.7	56.3	65.0	70.0
Cornelius	CB29X90	2.9	RR2X	63.7	62.5	62.5	68.0	62.9	56.6	63.7	67.1
Credenz	CZ 2928 LL	2.9	LL	62.8	60.8	62.0	66.9	61.6	53.8	64.1	68.2
Asgrow	AG29X9	2.9	RR2X	61.7	61.7	59.4	67.9	62.9	54.4	56.0	67.7
Mycogen	MY290L5	2.9	LL	61.7	58.1	62.4	60.6	60.2	53.4	66.0	67.7
Cornelius	CB29R69	2.9	RR2Y	61.1	58.2	61.1	60.2	61.8	52.8	65.1	65.5
Dairyland	DSR-2909/R2Y	2.9	RR2Y	58.8	58.0	58.8	59.0	58.1	56.8	55.5	63.9
Four Star	3X290	2.9	RR2X	54.2	57.0	49.8	64.4	57.3	49.3	41.5	58.7
Asgrow	AG30X9	3.0	RR2X	60.4	59.4	58.3	66.0	61.8	50.4	56.3	68.4
Four Star	EX312	3.0	RR2X	55.7	53.6	51.0	65.7	56.9	38.1	51.3	63.6
Dairyland	DSR-3028/R2Y	3.0	RR2Y	55.3	56.7	52.6	58.0	61.0	51.3	51.6	54.9
Renk	RS309NSX	3.0	RR2X	54.8	55.0	52.6	63.8	52.8	48.5	50.8	58.6
Pioneer	P31A22X	3.1	RR2X	63.7	59.5	65.3	64.4	59.5	54.5	64.4	76.9
Cornelius	CB31X25	3.1	RR2X	63.2	60.1	63.7	65.8	59.6	55.1	68.6	67.4
LG Seeds	LGS3140RX	3.1	RR2X	61.4	58.9	60.6	63.2	62.3	51.2	64.3	66.3
Mycogen	MY310L5	3.1	LL	60.7	57.4	61.1	60.7	59.1	52.2	62.1	68.9
Credenz	CZ 3118 LL	3.1	LL	59.9	57.0	59.8	57.9	61.6	51.5	61.8	66.1
Dyna-Gro	S31XT59	3.1	RR2X	55.4	55.0	52.8	60.0	58.9	46.0	50.4	62.1
LG Seeds	LG3297RX	3.2	RR2X	62.0	59.7	62.6	66.4	56.1	56.7	59.8	71.3
Asgrow	AG32X8	3.2	RR2X	57.3	59.3	53.6	67.5	58.3	51.9	45.7	63.3
Dairyland	DSR-3250/R2Y	3.2	RR2Y	56.6	58.1	54.9	58.6	58.9	56.8	45.9	62.0
Renk	RS328NX	3.2	RR2X	56.5	52.1	58.5	55.1	51.7	49.4	57.7	68.3
<b>Experiment Mean</b>				<b>60.1</b>			<b>63.2</b>	<b>59.9</b>	<b>52.7</b>	<b>58.3</b>	<b>66.5</b>
<b>Minimum Mean</b>				<b>50.9</b>			<b>53.9</b>	<b>44.5</b>	<b>38.1</b>	<b>41.5</b>	<b>54.9</b>
<b>Maximum Mean</b>				<b>66.8</b>			<b>72.6</b>	<b>68.8</b>	<b>59.0</b>	<b>71.1</b>	<b>76.9</b>
<b>LSD(0.25)</b>				<b>3.0</b>			<b>2.9</b>	<b>4.5</b>	<b>4.9</b>	<b>3.7</b>	<b>3.0</b>
<b>Coefficient of Variability</b>				<b>6.8</b>			<b>5.5</b>	<b>9.0</b>	<b>11.4</b>	<b>7.7</b>	<b>5.3</b>



**Table 10. South district, 2018 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
Titan Pro	TP-28X47	2.8	RR2X	62.7	58.1	62.8	68.2	56.5	49.8	71.4	67.2
LG Seeds	C2888RX	2.8	RR2X	60.3	54.8	59.5	67.3	54.4	42.6	70.0	65.7
Dyna-Gro	S28XT58	2.8	RR2X	60.2	56.1	60.3	67.4	54.1	46.9	68.9	65.2
Cornelius	CB28R58	2.8	RR2Y	60.0	54.9	59.7	63.3	57.7	43.5	69.8	65.8
Renk	RS288NX	2.8	RR2X	58.9	54.0	57.7	66.7	55.6	39.6	70.4	63.1
Merschman	Sioux 1628LL	2.8	LL	56.7	51.4	58.1	56.7	53.0	44.5	70.4	59.4
LG Seeds	LGS2821RX	2.8	RR2X	56.3	50.9	58.1	57.0	50.3	45.3	67.4	61.5
Pioneer	P28T08R	2.8	RR1	54.8	48.7	54.7	58.3	49.1	38.6	67.0	58.6
Iowa State	IA2102RA12	2.8	Conv	47.8	42.4	48.1	54.5	40.2	32.6	60.9	50.7
Cornelius	CB29X90	2.9	RR2X	60.4	54.9	60.2	64.6	57.9	42.1	72.3	66.1
Asgrow	AG29X9	2.9	RR2X	59.9	55.3	60.4	63.9	53.9	48.0	69.2	63.9
Mycogen	MY290L5	2.9	LL	58.3	53.0	59.5	59.8	54.0	45.3	70.9	62.3
Credenz	CZ 2915 LL	2.9	LL	56.2	50.3	57.0	57.8	51.6	41.4	67.3	62.4
Four Star	3X290	2.9	RR2X	54.0	49.4	52.8	61.2	50.8	36.3	64.6	57.6
Credenz	CZ 2928 LL	2.9	LL	53.4	48.0	53.4	55.6	50.4	37.9	61.8	60.5
Asgrow	AG30X9	3.0	RR2X	57.5	52.9	57.7	59.4	53.9	45.5	64.4	63.2
Willcross	WXR7306	3.0	RR1	57.5	51.6	57.4	61.5	54.5	38.9	73.3	60.1
Four Star	EX312	3.0	RR2X	56.3	52.0	54.5	63.2	53.9	38.9	64.2	60.3
Renk	RS309NSX	3.0	RR2X	54.8	51.0	52.9	60.0	54.8	38.2	64.3	56.2
Cornelius	CB31X25	3.1	RR2X	60.2	57.2	60.2	64.5	57.2	49.9	67.9	62.8
Pioneer	P31A22X	3.1	RR2X	58.6	53.8	59.4	59.0	55.8	46.6	69.4	62.2
LG Seeds	LGS3140RX	3.1	RR2X	58.4	54.0	58.1	63.2	52.8	46.0	64.6	63.8
Mycogen	MY310L5	3.1	LL	57.4	52.7	56.5	63.0	54.7	40.4	69.4	59.6
Hoegemeyer	HPT LL3181 N	3.1	LL	57.0	50.9	56.7	64.7	51.5	36.5	69.4	64.2
Merschman	McKinley 1931LL	3.1	LL	56.5	50.9	57.4	55.9	53.4	43.4	68.1	60.7
Dyna-Gro	S31XT59	3.1	RR2X	53.7	49.0	52.1	65.5	46.7	34.8	64.1	57.5
LG Seeds	LG3297RX	3.2	RR2X	60.1	54.9	60.4	64.6	55.2	45.0	71.3	65.1
Asgrow	AG32X8	3.2	RR2X	57.7	54.3	57.4	66.0	51.4	45.4	63.1	63.7
Titan Pro	TP 32X58	3.2	RR2X	56.5	53.1	55.8	62.7	52.3	44.3	62.5	60.6
Renk	RS328NX	3.2	RR2X	56.0	52.2	56.7	57.6	53.4	45.7	65.2	59.2
<b>Experiment Mean</b>				<b>57.3</b>			<b>61.8</b>	<b>53.0</b>	<b>42.5</b>	<b>67.5</b>	<b>61.6</b>
<b>Minimum Mean</b>				<b>47.8</b>			<b>54.5</b>	<b>40.2</b>	<b>32.6</b>	<b>60.9</b>	<b>50.7</b>
<b>Maximum Mean</b>				<b>62.7</b>			<b>68.2</b>	<b>57.9</b>	<b>49.9</b>	<b>73.3</b>	<b>67.2</b>
<b>LSD(0.25)</b>				<b>2.0</b>			<b>2.7</b>	<b>3.1</b>	<b>2.9</b>	<b>3.5</b>	<b>2.5</b>
<b>Coefficient of Variability</b>				<b>5.8</b>			<b>5.3</b>	<b>7.0</b>	<b>8.2</b>	<b>6.3</b>	<b>5.0</b>





**Table 11. South district, 2018 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
LG Seeds	LGS3357RX	3.3	RR2X	60.2	55.1	60.2	63.8	55.7	45.8	71.7	63.2
Dyna-Gro	S33XT79	3.3	RR2X	59.1	54.8	58.7	62.8	56.9	44.8	69.7	61.7
Willcross	WXX3349N	3.3	RR2X	58.0	54.0	57.3	62.2	56.2	43.7	65.7	62.5
MorSoy	MS 3357 RXT	3.3	RR2X	56.3	51.8	57.5	55.1	53.7	46.6	67.8	58.2
Titan Pro	TP-34X86	3.4	RR2X	62.0	57.3	61.7	64.1	59.9	47.9	71.1	66.2
LG Seeds	LGS3411RX	3.4	RR2X	59.9	55.6	60.4	61.5	56.1	49.3	68.8	63.2
Dyna-Gro	S34XT69	3.4	RR2X	58.9	54.1	58.3	64.7	52.8	44.9	68.6	61.3
Renk	RS348NX	3.4	RR2X	55.8	51.8	54.6	62.7	53.0	39.7	63.0	61.0
LG Seeds	C3550RX	3.5	RR2X	61.5	57.0	61.5	65.0	57.8	48.3	73.7	62.6
Credenz	CZ 3548 LL	3.5	LL	59.8	54.4	60.6	62.9	55.1	45.0	72.8	63.9
Mycogen	MY350L4	3.5	LL	59.8	55.7	59.3	63.3	56.4	47.3	67.9	62.8
Dyna-Gro	S35XT97	3.5	RR2X	58.9	54.3	59.4	64.1	52.7	46.0	69.7	62.4
Renk	RS357NX	3.5	RR2X	57.7	54.3	57.9	61.9	53.3	47.6	62.4	63.7
Miller	3570CBGT	3.5	B-GT	57.2	54.5	55.4	65.8	55.4	42.3	67.5	56.4
Dairyland	DSR-3555/R2Y	3.5	RR2Y	57.0	51.7	56.7	61.2	53.1	40.9	67.4	61.8
Merschman	Monroe 1736LL	3.6	LL	58.7	54.3	57.3	62.1	58.5	42.3	69.3	60.3
MorSoy	MS 3611 RXT	3.6	RR2X	58.7	54.5	57.8	65.1	55.9	42.5	66.1	64.8
Credenz	CZ 3601 LL	3.6	LL	58.2	51.5	59.4	56.6	54.3	43.7	74.2	60.4
Pioneer	P36A18X	3.6	RR2X	57.4	52.1	56.1	60.6	56.8	39.0	70.0	59.5
Prairie Brand	PB-3648R2	3.6	RR2Y	56.9	52.3	55.9	66.4	52.1	38.5	68.5	60.6
Asgrow	AG36X6	3.6	RR2X	56.6	53.1	55.0	61.0	56.1	42.3	63.5	59.1
Hoegemeyer	HPT 3679 NX	3.6	RR2X	56.1	50.7	56.1	60.1	51.5	40.6	68.1	59.7
MorSoy	MS 3678 RXT	3.6	RR2X	56.1	52.0	57.0	59.1	52.2	44.8	67.0	59.2
Pioneer	P36T36X	3.6	RR2X	56.0	50.4	56.8	60.8	49.4	40.9	69.3	60.2
MorSoy	MS 3708 RXT	3.7	RR2X	62.0	56.5	61.1	67.7	57.4	44.5	75.2	63.8
LG Seeds	LGS3777RX	3.7	RR2X	57.6	52.1	56.6	62.2	56.2	37.9	66.5	65.3
Mycogen	MY371L5	3.7	LL	57.3	51.5	56.0	64.7	53.1	36.6	68.8	62.7
Credenz	CZ 3738 LL	3.7	LL	57.2	53.7	56.3	62.6	55.5	42.9	66.2	59.7
Asgrow	AG37X9	3.7	RR2X	56.6	52.6	56.4	60.1	53.9	43.9	66.6	58.7
Dyna-Gro	S37XT28	3.7	RR2X	55.8	51.1	55.9	59.2	51.6	42.5	64.1	61.2
Hoegemeyer	HPT LL3722 N	3.7	LL	55.4	53.3	52.7	60.5	58.3	41.0	61.1	56.0
Renk	RS379NX	3.7	RR2X	55.4	50.1	54.4	63.5	49.9	36.9	64.0	62.4
Hoegemeyer	HPT 3871 NX	3.8	RR2X	58.7	55.7	57.4	63.7	59.3	44.1	67.0	61.0
Merschman	Truman 1438LL	3.8	LL	57.0	51.3	56.9	57.0	58.0	38.8	70.4	61.5
MorSoy	MS 3806 RXT	3.8	RR2X	55.1	52.6	52.8	61.7	55.3	40.9	60.8	56.7
Hoegemeyer	HPT LL3813 N	3.8	LL	55.0	50.9	54.5	59.9	53.4	39.3	65.5	58.5
MorSoy	MS 3858 RXT	3.8	RR2X	51.7	48.0	48.3	60.2	51.8	32.0	60.9	52.0
Asgrow	AG39X7	3.9	RR2X	57.7	52.4	57.3	64.3	53.0	40.0	67.9	64.0
MorSoy	MS 3907 RXT	3.9	RR2X	56.3	50.9	55.1	61.0	54.9	36.9	67.7	60.7
Hoegemeyer	HPT 3916 NX	3.9	RR2X	55.6	51.9	54.0	61.3	55.4	39.1	65.9	57.0
Willcross	WXR7398N	3.9	RR1	54.3	49.8	51.6	60.6	55.7	33.1	62.5	59.2
Renk	RS398NX	3.9	RR2X	52.6	48.3	50.0	58.2	54.7	32.1	57.7	60.3
<b>Experiment Mean</b>				<b>57.3</b>			<b>61.9</b>	<b>54.8</b>	<b>41.8</b>	<b>67.2</b>	<b>60.8</b>
<b>Minimum Mean</b>				<b>51.7</b>			<b>55.1</b>	<b>49.4</b>	<b>32.0</b>	<b>57.7</b>	<b>52.0</b>
<b>Maximum Mean</b>				<b>62.0</b>			<b>67.7</b>	<b>59.9</b>	<b>49.3</b>	<b>75.2</b>	<b>66.2</b>
<b>LSD(0.25)</b>				<b>2.0</b>			<b>2.7</b>	<b>3.1</b>	<b>2.9</b>	<b>3.5</b>	<b>2.5</b>
<b>Coefficient of Variability</b>				<b>5.8</b>			<b>5.3</b>	<b>7.0</b>	<b>8.2</b>	<b>6.3</b>	<b>5.0</b>

**Table 12. Entrant Information.**
**Asgrow: Monsanto, St. Louis, MO**
[www.asgrowanddekalb.com](http://www.asgrowanddekalb.com)
**(800) 768-6387**

Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
AG18X9	RR2X	ACL	Yes	X					
AG20X9	RR2X	ACL	Yes	X					
AG22X9	RR2X	ACL	Yes	X					
AG23X9	RR2X	ACL	Yes		X	X			
AG24X9	RR2X	ACL	Yes		X	X			
AG25X9	RR2X	ACL	Yes		X	X			
AG26X8	RR2X	ACL	Yes			X			
AG27X9	RR2X	ACL	Yes			X			
AG28X9	RR2X	ACL	Yes				X		
AG29X9	RR2X	ACL	Yes				X	X	
AG30X9	RR2X	ACL	Yes				X	X	
AG32X8	RR2X	ACL	Yes				X	X	
AG36X6	RR2X	ACL	Yes						X
AG37X9	RR2X	ACL	Yes						X
AG39X7	RR2X	ACL	Yes						X

**Cornelius: Cornelius Seed, Bellevue, IA**
[www.corneliusseed.com](http://www.corneliusseed.com)
**(800) 218-1862**

Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
CB18X80	RR2X	CMV+ILVO	Yes	X					
CB19R71	RR2Y	CMV+ILVO	Yes	X					
CB20R44	RR2Y	CMV+ILVO	Yes	X					
CB20X56	RR2X	CMV+ILVO	Yes	X					
CB21X55	RR2X	CMV+ILVO	Yes	X					
CB22R88	RR2Y	CMV+ILVO	Yes		X	X			
CB22X32	RR2X	CMV+ILVO	Yes	X					
CB23X00	RR2X	CMV+ILVO	Yes		X	X			
CB24R82	RR2Y	CMV+ILVO	Yes		X	X			
CB24X64	RR2X	CMV+ILVO	Yes		X	X			
CB26X67	RR2X	CMV+ILVO			X	X			
CB27X81	RR2X	CMV+ILVO	Yes		X	X			
CB28R58	RR2Y	CMV+ILVO	Yes				X	X	
CB29R69	RR2Y	CMV+ILVO	Yes				X		
CB29X90	RR2X	CMV+ILVO	Yes				X	X	
CB31X25	RR2X	CMV+ILVO	Yes				X	X	

**Credenz: Bayer CropScience, RTP, NC**
[www.cropscience.bayer.com](http://www.cropscience.bayer.com)
**(870) 351-0390**

Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
CZ 1738 LL	LL	PV+ILVO	Yes	X					
CZ 2312 LL	LL	PV+ILVO	Yes		X	X			
CZ 2408 LL	LL	PV+ILVO	Yes		X	X			
CZ 2601 LL	LL	PV+ILVO	Yes		X	X			
CZ 2915 LL	LL	PV+ILVO	Yes				X	X	
CZ 2928 LL	LL	PV+ILVO	Yes				X	X	
CZ 3118 LL	LL	PV+ILVO	Yes				X		
CZ 3548 LL	LL	PV+ILVO	Yes						X
CZ 3601 LL	LL	PV+ILVO	Yes						X
CZ 3738 LL	LL	PV+ILVO	Yes						X



**Table 12. Entrant Information. Continued**

<b>Dairyland: Dairyland Seed Co., Inc., West Bend, WI</b>				<b>www.dairylandseed.com</b>				<b>(800) 236-0163</b>	
Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
DSR-1950/R2Y	RR2Y	CM	Yes	X					
DSR-2110/R2Y	RR2Y	CM		X					
DSR-2197/R2Y	RR2Y	CM		X					
DSR-2330/R2Y	RR2Y	CM			X				
DSR-2616/R2Y	RR2Y	CM			X				
DSR-2909/R2Y	RR2Y	CM					X		
DSR-3028/R2Y	RR2Y	CM					X		
DSR-3250/R2Y	RR2Y	CM					X		
DSR-3555/R2Y	RR2Y	CM							X
<b>Dyna-Gro: Crop Production Services, Wall Lake, IA</b>				<b>www.dynagroseed.com</b>				<b>(712) 664-2444</b>	
Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
S21XT49	RR2X	E-VIP	Yes	X					
S21XT77	RR2X	E-VIP	Yes	X					
S23XT78	RR2X	E-VIP	Yes		X	X			
S24LL98	LL	E-VIP	Yes		X	X			
S24XT08	RR2X	E-VIP	Yes		X				
S25XT99	RR2X	E-VIP	Yes		X	X			
S28XT58	RR2X	E-VIP	Yes				X	X	
S31XT59	RR2X	E-VIP	Yes				X	X	
S33XT79	RR2X	E-VIP	Yes						X
S34XT69	RR2X	E-VIP	Yes						X
S35XT97	RR2X	E-VIP	Yes						X
S37XT28	RR2X	E-VIP	Yes						X





**Table 12. Entrant Information. *Continued***
**Four Star: Four Star Seed Co., Logan, IA**
[www.4starseed.com](http://www.4starseed.com)
**(712) 644-1400**

Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
3X190	RR2X	ACL	Yes	X					
3X221	RR2X	ACL	Yes	X					
3X241	RR2X	ACL	Yes		X	X			
3X271	RR2X	ACL	Yes		X	X			
3X290	RR2X	ACL	Yes				X	X	
EX260	RR2X	ACL			X	X			
EX312	RR2X	ACL	Yes				X	X	

**Hoegemeyer: Hoegemeyer Hybrids, Hooper, NE**
[www.therightseed.com](http://www.therightseed.com)
**(800) 245-4631**

Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
HPT 3679 NX	RR2X	Other	Yes						X
HPT 3871 NX	RR2X	Other	Yes						X
HPT 3916 NX	RR2X	Other	Yes						X
HPT LL3181 N	LL	Other	Yes					X	
HPT LL3722 N	LL	Other	Yes						X
HPT LL3813 N	LL	Other	Yes						X
LL2579 N	LL	CM	Yes			X			





**Table 12. Entrant Information. Continued**
**Iowa State: Iowa State University, Ames, IA** **www.CAD.iastate.edu** **(515) 294-9442**

Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
AR15-158072	Conv	CM	Yes	X					
IA2102	Conv	None	Yes		X	X			
IA2102RA12	Conv	None	Yes				X	X	
IA2112RA12	Conv	None	Yes		X	X			

**LG Seeds: LG Seeds, Westfield, IN** **www.lgseeds.com** **(888) 675-3190**

Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
C2888RX	RR2X	AGSHLD+ILVO	Yes				X	X	
C3550RX	RR2X	AGSHLD+ILVO	Yes						X
LG3297RX	RR2X	AGSHLD+ILVO	Yes				X	X	
LGS1635RX	RR2X	AGSHLD+ILVO	Yes	X					
LGS2007RX	RR2X	AGSHLD+ILVO	Yes	X					
LGS2239RX	RR2X	AGSHLD+ILVO	Yes	X					
LGS2417RX	RR2X	AGSHLD+ILVO	Yes		X	X			
LGS2444RX	RR2X	AGSHLD+ILVO	Yes		X	X			
LGS2680RX	RR2X	AGSHLD+ILVO			X	X			
LGS2759RX	RR2X	AGSHLD+ILVO	Yes		X	X			
LGS2821RX	RR2X	AGSHLD+ILVO	Yes				X	X	
LGS3140RX	RR2X	AGSHLD+ILVO	Yes				X	X	
LGS3357RX	RR2X	AGSHLD+ILVO	Yes						X
LGS3411RX	RR2X	AGSHLD+ILVO	Yes						X
LGS3777RX	RR2X	AGSHLD+ILVO	Yes						X

**Merschman: Merschman Seeds, Inc., West Point, IA** **www.merschmanseeds.com** **(800) 848-7333**

Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
McKinley 1931LL	LL	BC+ILVO	Yes					X	
Monroe 1736LL	LL	BC+ILVO	Yes						X
Sioux 1628LL	LL	BC+ILVO	Yes					X	
Truman 1438LL	LL	BC+ILVO	Yes						X

**Miller: Miller Hybrids, Inc., Kalona, IA** **www.millerhybrids.com** **(319) 656-2532**

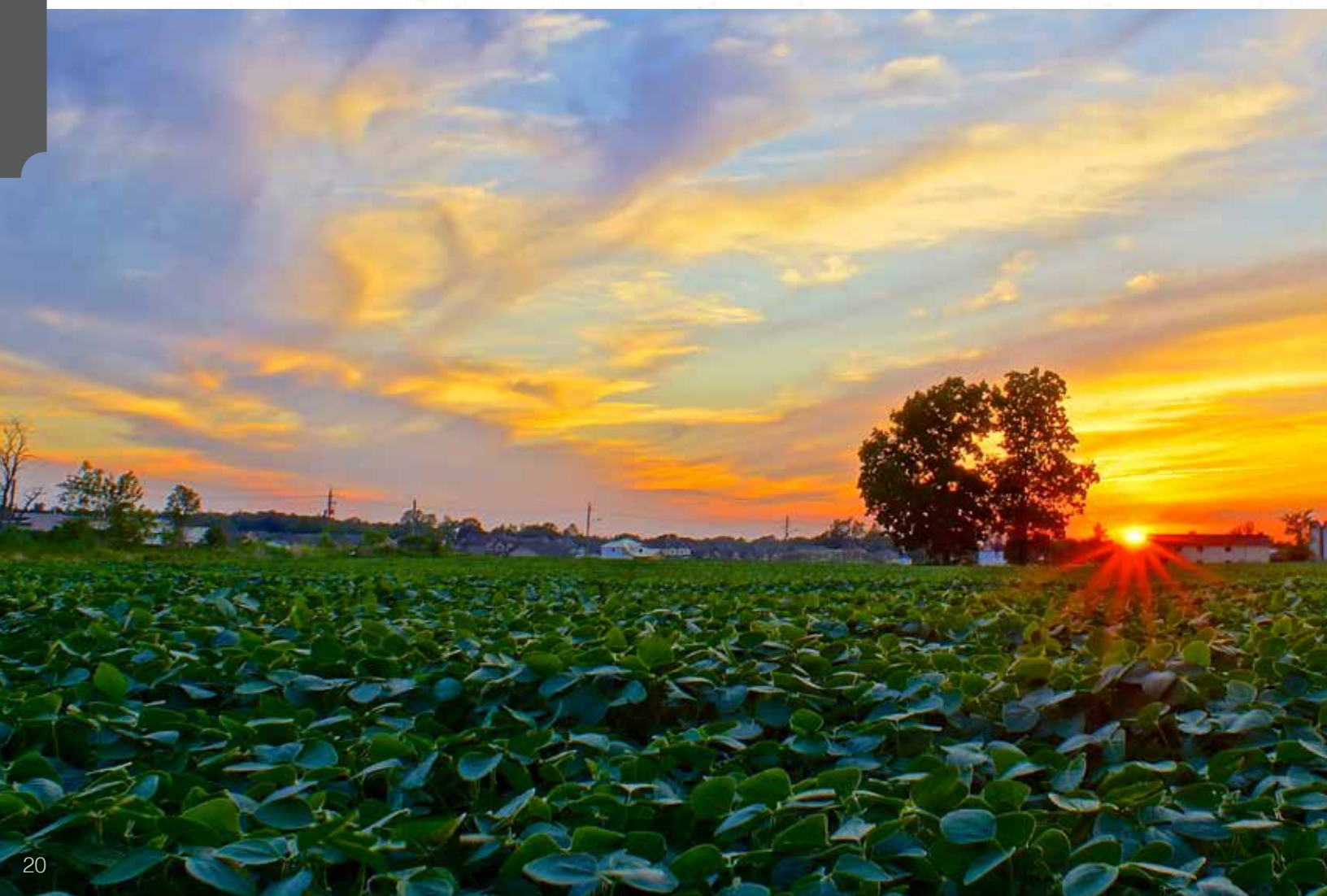
Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
25179LL	LL	MSC	Yes		X				
2659CLL	LL	MSC	Yes			X			
3570CBGT	B-GT	MSC	Yes						X

**Table 12. Entrant Information. Continued**
**MorSoy: MFA Inc., Columbia, MO**
[www.morsoy.com](http://www.morsoy.com)
**(573) 876-5285**

Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
MS 3357 RXT	RR2X	CMV	Yes						X
MS 3611 RXT	RR2X	CMV	Yes						X
MS 3678 RXT	RR2X	CMV	Yes						X
MS 3708 RXT	RR2X	CMV	Yes						X
MS 3806 RXT	RR2X	CMV	Yes						X
MS 3858 RXT	RR2X	CMV	Yes						X
MS 3907 RXT	RR2X	CMV	Yes						X

**Mycogen: Mycogen Seeds, Indianapolis, IN**
[www.mycogen.com](http://www.mycogen.com)
**(800) MYCOGEN**

Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
5N194R2	RR2Y	CCB	Yes	X					
5N206R2	RR2Y	CCB	Yes	X					
5N211R2	RR2Y	CCB	Yes	X					
5N245R2	RR2Y	CCB	Yes			X			
MY210L5	LL	LUM+ILVO	Yes	X					
MY260L4	LL	LUM+ILVO	Yes			X			
MY290L5	LL	LUM+ILVO	Yes				X	X	
MY310L5	LL	LUM+ILVO	Yes				X	X	
MY350L4	LL	LUM+ILVO	Yes						X
MY371L5	LL	LUM+ILVO	Yes						X





**Table 12. Entrant Information. Continued**

<b>Pioneer: DuPont Pioneer, Johnston, IA</b>				<b>www.pioneer.com</b>				<b>(800) 772-2721</b>	
Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
P21A28X	RR2X	PPST	Yes	X					
P22T73R	RR1	PPST+ILVO	Yes	X					
P24T93R	RR2X	PPST	Yes		X	X			
P25A70R	RR1	PPST	Yes		X	X			
P28T08R	RR1	PPST+ILVO	Yes				X	X	
P31A22X	RR2X	PPST	Yes				X	X	
P36A18X	RR2X	PPST	Yes						X
P36T36X	RR2X	PPST	Yes						X

<b>Prairie Brand: Prairie Brand Seeds, Story City, IA</b>								<b>(800) 544-8751</b>	
Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
PB-3648R2	RR2Y	CM	Yes						X

<b>Renk: Renk Seed Co., Sun Prairie, WI</b>				<b>www.renkseed.com</b>				<b>(800) BUY RENK</b>	
Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
RS207NX	RR2X	CM	Yes	X					
RS219NX	RR2X	CM	Yes	X					
RS239NX	RR2X	CM	Yes		X	X			
RS248NX	RR2X	CM	Yes		X	X			
RS269X	RR2X	CM			X	X			
RS288NX	RR2X	CM	Yes				X	X	
RS309NSX	RR2X	CM	Yes				X	X	
RS328NX	RR2X	CM	Yes				X	X	
RS348NX	RR2X	CM	Yes						X
RS357NX	RR2X	CM	Yes						X
RS379NX	RR2X	CM	Yes						X
RS398NX	RR2X	CM	Yes						X

<b>Roeschley: Miller Hybrids, Inc., Kalona, IA</b>				<b>www.millerhybrids.com</b>				<b>(319) 656-2532</b>	
Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
2162CRX	RR2X	MSC	Yes	X					
2982CRX	RR2X	MSC	Yes				X		

<b>Titan Pro: Titan Pro SCI, Inc., Clear Lake, IA</b>				<b>www.titanprosci.com</b>				<b>(641) 357-7283</b>	
Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
26X37	RR2X	INT-STE+ILVO			X	X			
TP 16L86	LL	INT-STE+ILVO	Yes	X					
TP 20X98	RR2X	INT-STE+ILVO	Yes	X					
TP 22X68	RR2X	INT-STE+ILVO	Yes	X					
TP 32X58	RR2X	INT-STE+ILVO	Yes				X	X	
TP-21L15	LL	INT-STE+ILVO	Yes	X					
TP-24L27	LL	INT-STE+ILVO	Yes		X	X			
TP-24X87	RR2X	INT-STE+ILVO	Yes		X	X			
TP-28X47	RR2X	INT-STE+ILVO	Yes				X	X	
TP-34X86	RR2X	INT-STE+ILVO	Yes						X

**Table 12. Entrant Information. *Continued***

<b>Viking: Albert Lea Seed House, Albert Lea, MN</b>				<b>www.alseed.com</b>				<b>(800) 352-5247</b>	
Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
2018N	Conv	CM	Yes	X					
2155N	Conv	CM	Yes	X					
2188AT12N	Conv	CM	Yes	X					
2299N	Conv	CM	Yes	X					
2340KN	Conv	CM	Yes		X				
2418N	Conv	CM	Yes		X				

<b>Willcross Seeds: NeCo Seeds, Garden City, MO</b>				<b>www.willcrossseed.com</b>				<b>(816) 862-8203</b>	
Variety	Herb Tech	IST	SCN	North Early	North Full	Central Early	Central Full	South Early	South Full
WXR7306	RR1	CM						X	
WXR7398N	RR1	CM	Yes						X
WXX3349N	RR2X	CM	Yes						X





# Do Your Homework



We provide Iowa corn and soybean growers the information they need to make the best seed choices for their farms. Look it up – it's FREE!

[croptesting.iastate.edu](http://croptesting.iastate.edu)



**IOWA STATE UNIVERSITY**  
**Department of Agronomy**

©2018 Iowa Crop Improvement Association. All Rights Reserved.



# IOWA STATE UNIVERSITY

## Department of Agronomy

*A summary of replicated research by Iowa Crop Improvement Association, Iowa's Official Variety Trials.*