



2020

SOYBEAN

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. More detailed 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 Data in Advertisements

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

Pictured below (left to right): Adam Meier, Cade Vanvliet, Doan Schmitz, Carol Cornelious, Graydon Marzen, Ryan Budnik, Tyler Hutchinson



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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 Performance Tests 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 2020 Iowa Crop Performance Tests—Soybean

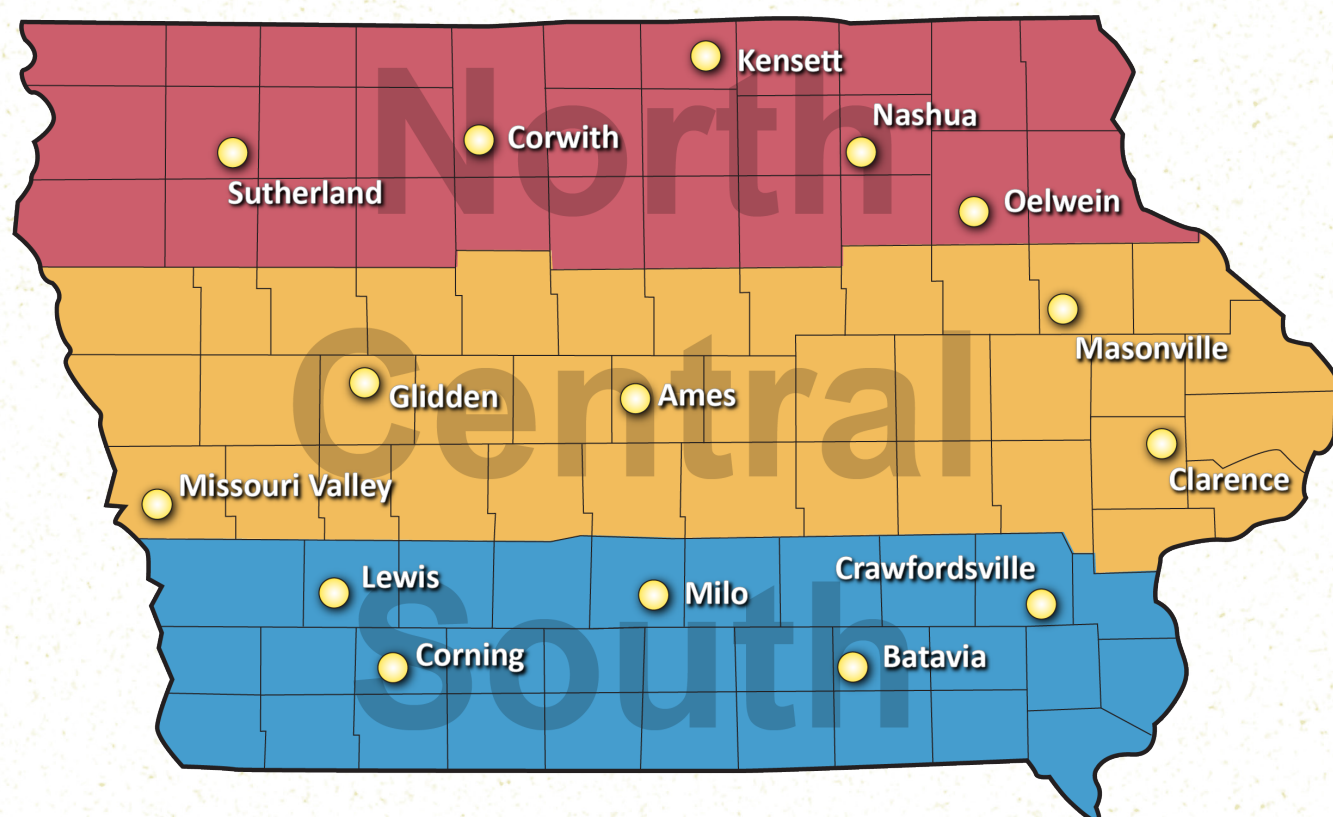


Table 1. General information for the 2020 soybean test.

Location and Cooperator	Soil Type	Planting Date	Harvest Date	Avg Yield Bu/Acre
North				
Sutherland, Terry Tuttle	Marcus/Primghar silty clay loam	4-May	30-Sep	47.2
Corwith, Norm & Jonathan Chambers	Canisteo clay loam/Kossuth silty clay loam	4-May	13-Oct	65.6
Kensett, Justin Faber	Merton loam	2-May	13-Oct	66.0
Nashua, Ken Pecinovsky	Kenyon loam	2-May	29-Sep	62.9
Oelwein, Heath Geiselman	Readlyn silt loam/Kenyon loam	4-May	13-Oct	61.5
Central				
Missouri Valley, Dean McIntosh	Kennebec silt loam	11-May	8-Oct	63.0
Glidden, David Theilen	Clarion/Nicollet loam, Webster clay loam	30-Apr	Discard	N/A
Ames, Mike Fiscus	Canisteo clay loam, Clarion/Nicollet loam	8-May	13-Oct	52.2
Masonville, Dennis Lindsay	Kenyon loam/Clyde-Floyd complex	30-Apr	14-Oct	53.4
Clarence, Dave Elijah	Tama/Muscatine silty clay loam	1-May	2-Oct	78.3
South				
Lewis, Dallas Maxwell	Marshall/Exira silty clay loam	4-May	8-Oct	70.0
Corning, Chris Gaesser	Sharpsburg silty clay loam	4-May	8-Oct	72.6
Milo, Craig & Adam Hill	Macksburg silty clay loam	29-Apr	Discard	N/A
Batavia, Pat Hammes	Grundy/Edina silt loam	29-Apr	9-Oct	55.1
Crawfordsville, Cody Schneider	Mahaska/Taintor/Nira silty clay loam	29-Apr	9-Oct	69.6

Table 2. Seed treatment and other data descriptions.

Seed Treatment		Herb Tech: Herbicide Technology	
ACL+ILVO	Acceleron Standard + ILeVO	Conv	Conventional, no herbicide traits
CM	CruiserMaxx	E3	Enlist E3
CMV	CruiserMaxx Vibrance	LLGT27	Balance GT + LL
CMV+Salt	CruiserMaxx Vibrance + Saltro	RR2X	Roundup Ready 2 Xtend
E-VIP+Salt	Elevate VIP + Saltro		
LMGN	Lumisena + Evergol Energy + L2030G + Gaucho		
Other	Eclipse Trio and N-force + Saltro		
PV+ILVO	Poncho-VOTIVO + ILeVO		
Salt	Saltro		
Spir348	Spirato IMTm 348		
Yield: Bushels per acre, adjusted to 13% moisture basis MG: Maturity group indicated by variety name AGV: Adjusted Gross Value, based on a price per bushel of \$9.75 and does not include shrinkage factors			
In 2020, we evaluated over 161 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, 2019-2020.**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 \$
NK Brand	S21-W8X	2.1	RR2X	61.7	61.4	63.1	648
Asgrow	AG22X9	2.2	RR2X	61.6	60.5	63.7	647
Pioneer	P21A28X	2.1	RR2X	61.5	60.8	62.9	646
Golden Harvest	GH2230X	2.2	RR2X	61.5	60.1	63.4	645
Asgrow	AG19X0	1.9	RR2X	61.2	59.8	63.5	642
Asgrow	AG20X9	2	RR2X	61.2	60.4	63.1	642
Credenz	CZ 2230GTLL	2.2	LLGT27	61.1	59.5	63.1	641
Iowa State	IAS19C3	1.9	Conv	60.9	60.4	62.7	639
Golden Harvest	GH1915X	1.9	RR2X	60.3	59.2	62.1	634
Dyna-Gro	S21XT49	2.1	RR2X	59.9	57.5	63.0	629
Cornelius	CB20X22	2	RR2X	59.7	58.8	61.6	627
Cornelius	CB18X80	1.8	RR2X	59.7	56.9	63.6	627
Four Star	3X192	1.9	RR2X	59.6	57.9	63.0	626
Four Star	3X201	2.2	RR2X	59.4	59.2	60.6	624
Four Star	3X221	2.2	RR2X	59.3	59.0	61.0	623
Viking	2155N	2.1	Conv	58.7	57.9	61.1	616
Asgrow	AG18X0	1.8	RR2X	58.7	57.7	61.2	616
Viking	2188AT12N	2.2	Conv	57.4	58.7	56.5	602
Viking	2018N	2	Conv	56.3	55.9	58.3	591
Experiment Mean				59.1	58.2	61.2	
LSD(0.25)				2.1	2.8	2.8	

North full-season varieties, MG > 2.2

Company	Variety	MG	Herb Tech	Yield Bu/A	NW Yield Bu/A	NE Yield Bu/A	AGV \$
Pioneer	P27A17X	2.7	RR2X	63.8	62.9	65.9	670
Cornelius	CB24X64	2.4	RR2X	62.5	60.9	65.0	656
Pioneer	P23A32X	2.3	RR2X	62.2	60.8	63.4	653
Four Star	3X241	2.4	RR2X	62.1	61.2	64.1	653
Four Star	3X271	2.7	RR2X	62.0	60.0	64.7	651
Asgrow	AG27X0	2.7	RR2X	61.9	60.1	64.2	650
Iowa State	IAS25C1	2.5	Conv	61.8	61.7	63.1	649
Golden Harvest	GH2788X	2.7	RR2X	61.2	60.3	62.9	643
Renk	RS248NX	2.4	RR2X	61.2	61.1	63.5	642
Four Star	3X262	2.6	RR2X	60.4	58.4	61.9	635
NK Brand	S27-M8X	2.7	RR2X	60.4	58.5	62.6	634
Viking	2418N	2.4	Conv	59.1	58.4	59.7	620
Viking	2340KN	2.3	Conv	58.7	57.7	60.4	617
Experiment Mean				60.5	59.2	62.7	
LSD(0.25)				2.1	2.8	2.8	

Table 4. Central district 2-year means, 2019-2020.**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 \$
Cornelius	CB27X81	2.7	RR2X	64.8	62.3	63.1	680
Dyna-Gro	S27EN89	2.7	E3	64.7	62.9	62.3	679
Four Star	3X271	2.7	RR2X	64.6	62.3	65.6	678
Dyna-Gro	S25XT99	2.5	RR2X	62.9	61.1	62.8	660
Pioneer	P27A17X	2.7	RR2X	62.4	61.6	60.9	655
Asgrow	AG27X0	2.7	RR2X	62.3	59.9	61.3	654
Golden Harvest	GH2552X	2.5	RR2X	62.3	59.9	63.4	654
Renk	RS248NX	2.4	RR2X	61.9	60.1	60.9	650
Pioneer	P23A32X	2.3	RR2X	61.3	58.7	59.6	643
NK Brand	S27-M8X	2.7	RR2X	61.2	60.9	58.4	642
Iowa State	IAS25C1	2.5	Conv	61.1	58.1	60.1	642
Four Star	3X241	2.4	RR2X	60.8	58.5	60.4	638
Cornelius	CB26X78	2.6	RR2X	60.1	56.3	62.9	631
Four Star	3X262	2.6	RR2X	60.1	56.5	61.2	631
Viking	2418N	2.4	Conv	55.8	54.5	54.6	586
Experiment Mean				61.1	59.0	60.8	
LSD(0.25)				2.5	3.6	3.1	

Central full-season varieties, MG $>$ 2.7

Company	Variety	MG	Herb Tech	Yield Bu/A	CW Yield Bu/A	CE Yield Bu/A	AGV \$
Credenz	CZ 3099GTLL	3	LLGT27	65.3	62.2	66.1	686
NK Brand	S30-M9X	3	RR2X	64.8	62.6	63.6	681
Credenz	CZ 2830GTLL	2.8	LLGT27	64.4	61.6	64.8	676
Renk	G2840E	2.8	E3	64.1	61.9	64.6	673
Golden Harvest	GH3088X	3	RR2X	64.0	62.3	63.3	672
Dyna-Gro	S28XT58	2.8	RR2X	63.9	61.6	63.0	671
Four Star	3X301	3	RR2X	63.1	61.1	63.2	662
Asgrow	AG29X9	2.9	RR2X	62.7	61.1	62.1	658
Renk	RS280NX	2.8	RR2X	62.7	60.2	62.2	658
Pioneer	P31A22X	3.1	RR2X	62.3	60.0	62.5	655
NK Brand	S29-K3X	2.9	RR2X	61.6	60.1	60.9	647
Pioneer	P29A25X	2.9	RR2X	61.3	59.0	61.3	644
Experiment Mean				62.2	59.6	62.7	
LSD(0.25)				2.5	3.6	3.1	

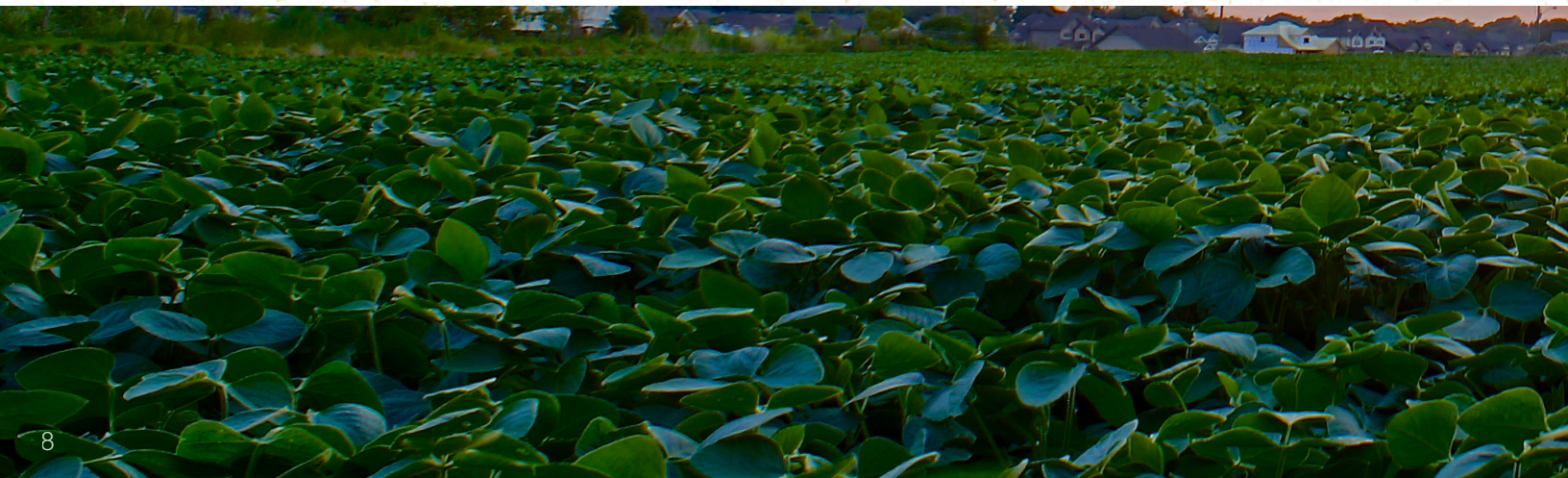


Table 5. South district 2-year means, 2019-2020.
South early-season varieties, MG $\leq$ 3.2

Company	Variety	MG	Herb Tech	Yield Bu/A	SW Yield Bu/A	SE Yield Bu/A	AGV \$
Credenz	CZ 3099GTLL	3.0	LLGT27	69.9	71.7	66.5	734
Pioneer	P31A22X	3.1	RR2X	68.9	70.3	65.8	723
Credenz	CZ 2830GTLL	2.8	LLGT27	68.8	69.9	66.7	723
Asgrow	AG32X0	3.2	RR2X	68.6	69.4	67.6	720
Pioneer	P29A25X	2.9	RR2X	68.5	71.6	63.4	720
Asgrow	AG29X9	2.9	RR2X	68.3	70.3	66.0	717
Dyna-Gro	S28XT58	2.8	RR2X	68.1	69.7	65.7	715
Four Star	3X301	3.0	RR2X	68.0	69.4	65.3	714
Renk	RS280NX	2.8	RR2X	67.8	68.2	66.3	712
Experiment Mean				67.1	68.1	64.7	
LSD(0.25)				2.4	3.0	3.0	

South full-season varieties, MG > 3.2

Company	Variety	MG	Herb Tech	Yield Bu/A	SW Yield Bu/A	SE Yield Bu/A	AGV \$
Dyna-Gro	S35EN99	3.5	E3	73.3	74.2	70.6	770
Renk	RS357NX	3.5	RR2X	71.7	72.4	69.5	753
Asgrow	AG33X0	3.3	RR2X	71.5	71.5	70.4	750
Credenz	CZ 3480GTLL	3.4	LLGT27	71.2	72.9	68.3	748
Cornelius	CB33X17	3.3	RR2X	70.9	71.2	69.0	744
Credenz	CZ 3519GTLL	3.5	LLGT27	70.2	73.1	65.4	737
Credenz	CZ 3309GTLL	3.3	LLGT27	69.7	70.7	66.6	732
Pioneer	P37A27X	3.7	RR2X	69.7	69.2	67.7	732
Credenz	CZ 3750GTLL	3.7	LLGT27	69.5	71.4	65.1	729
Dyna-Gro	S37EN39	3.7	E3	69.1	71.5	65.2	726
Renk	RS379NSX	3.7	RR2X	68.5	67.2	68.5	720
Cornelius	CB38X89	3.8	RR2X	68.5	67.3	69.5	719
Pioneer	P33A53X	3.3	RR2X	67.9	70.4	63.8	713
Credenz	CZ 3840GTLL	3.8	LLGT27	66.4	69.0	61.1	697
Credenz	CZ 3660GTLL	3.6	LLGT27	65.9	67.9	61.0	691
Experiment Mean				69.1	70.6	66.0	
LSD(0.25)				2.4	3.0	3.0	

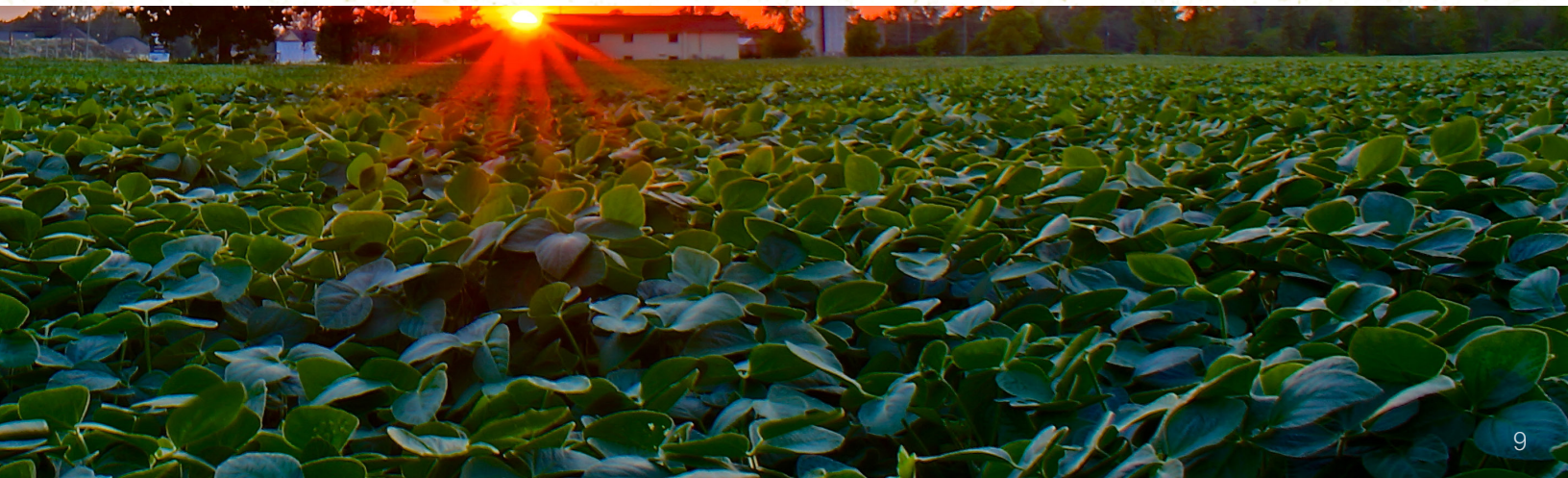


Table 6. North district, 2020 district and single-location means. Early-season test, MG ≤ 2.2.

Company	Variety	MG	Herb Tech	District Means			Single Location Yield				
				Yield Bu/A	NW Yield	NE Yield	Sutherland	Corwith	Kensett	Nashua	Oelwein
Dyna-Gro	S21EN81	2.1	E3	65.1	64.2	68.6	50.8	68.7	73.0	66.0	66.8
NK Brand	S21-W8X	2.1	RR2X	63.6	62.4	67.3	50.8	65.4	71.2	66.7	64.0
Credenz	CZ 2121GTLL	2.1	LLGT27	63.2	61.2	66.5	55.2	61.2	67.2	68.9	63.5
Renk	G2190GL	2.1	LLGT27	63.2	63.6	66.1	54.3	65.5	71.1	64.2	63.1
Pioneer	P21A28X	2.1	RR2X	63.2	62.7	64.6	50.3	70.3	67.6	63.3	62.9
Golden Harvest	GH2230X	2.2	RR2X	63.0	61.5	66.0	53.7	65.4	65.3	68.1	64.7
Asgrow	AG22X9	2.2	RR2X	63.0	63.2	64.6	52.8	69.9	67.0	65.0	61.9
Iowa State	IAS19C3	1.9	Conv	62.1	62.1	64.1	49.4	68.5	68.2	66.2	58.0
Dyna-Gro	S21XT49	2.1	RR2X	62.0	58.3	66.7	49.0	60.5	65.4	66.6	67.9
Credenz	CZ 1660GTLL	1.6	LLGT27	61.8	61.8	64.5	53.6	62.3	69.7	64.8	58.9
Golden Harvest	GH1915X	1.9	RR2X	61.7	60.1	65.2	50.8	61.3	68.1	67.3	60.1
Titan Pro	22E8	2.2	E3	61.6	60.5	65.1	49.5	63.3	68.8	66.2	60.3
Asgrow	AG19X0	1.9	RR2X	61.3	59.7	64.7	51.7	62.2	65.3	64.2	64.5
Titan Pro	21E0	2.1	E3	61.3	61.6	65.3	43.4	67.1	74.3	64.9	56.7
Iowa State	IAS19C2	1.9	Conv	61.2	60.3	63.4	48.4	67.0	65.5	61.5	63.3
Credenz	CZ 2230GTLL	2.2	LLGT27	61.1	60.9	61.9	48.9	71.3	62.5	63.1	60.1
Asgrow	AG20X9	2.0	RR2X	60.8	59.6	64.7	43.7	65.7	69.4	66.5	58.2
NuTech/G2 Genetics	20N04E	2.0	E3	60.8	59.1	64.1	46.2	65.9	65.3	63.7	63.2
Four Star	3X201	2.2	RR2X	60.7	60.7	62.4	47.4	69.9	64.8	58.7	63.6
Cornelius	CB20X22	2.0	RR2X	60.7	60.3	62.9	50.5	65.7	64.8	62.4	61.4
Blue River	22DC6	2.2	Conv	60.6	59.0	63.6	46.9	65.5	64.6	60.9	65.4
Four Star	3X221	2.2	RR2X	60.3	61.6	63.2	46.2	65.5	73.1	59.9	56.5
NuTech/G2 Genetics	22N02E	2.2	E3	60.2	60.3	62.6	44.6	69.1	67.1	62.4	58.2
Dyna-Gro	S19EN21	1.9	E3	60.1	58.6	62.3	50.9	62.4	62.7	62.8	61.4
Four Star	3X192	1.9	RR2X	60.0	58.6	64.0	50.0	58.9	66.9	65.5	59.5
P3 Genetics	2121E	2.1	E3	60.0	58.2	64.5	38.9	66.1	69.7	61.8	62.1
Renk	G2150E	2.1	E3	59.9	56.6	64.3	42.9	63.3	63.7	67.1	62.0
P3 Genetics	2119E	1.9	E3	59.5	58.8	63.0	45.0	64.7	66.7	62.7	59.5
Cornelius	CB18X80	1.8	RR2X	59.4	56.6	64.2	46.4	57.4	66.1	67.1	59.3
Iowa State	IAS19C1	1.9	Conv	59.3	57.4	62.6	51.3	58.9	62.0	64.1	61.6
NK Brand	S16-K2X	1.6	RR2X	59.3	57.0	62.9	51.5	57.7	61.7	65.0	62.1
Titan Pro	20E9	2.0	E3	58.9	57.9	61.6	47.1	62.4	64.2	57.8	62.9
Credenz	CZ 2040GTLL	2.0	LLGT27	58.9	57.9	60.7	44.9	66.0	62.9	63.1	56.1
Viking	2155N	2.1	Conv	58.4	56.5	62.3	45.3	56.3	67.9	57.2	61.9
Credenz	CZ 1850GTLL	1.8	LLGT27	58.3	60.3	59.1	51.3	62.6	67.1	61.1	49.2
Asgrow	AG18X0	1.8	RR2X	57.9	58.2	61.1	44.5	61.5	68.7	62.3	52.4
P3 Genetics	2021E	2.1	E3	57.8	56.9	60.1	44.4	63.9	62.3	59.9	58.0
Viking	2188AT12N	2.2	Conv	57.5	59.1	58.1	48.7	65.1	63.6	52.7	58.0
Titan Pro	19E0	1.9	E3	57.1	55.8	60.1	45.1	60.4	61.9	61.6	56.8
NuTech/G2 Genetics	16N03E	1.6	E3	56.1	56.9	58.5	46.5	57.5	66.7	58.3	50.3
Viking	O.e1993	1.9	Conv	55.9	54.2	57.6	48.4	58.2	56.0	60.7	56.0
Iowa State	IAR1903SCN	1.8	Conv	55.8	56.1	58.3	44.1	59.8	64.3	54.3	56.5
Viking	1940KN	1.9	Conv	53.7	52.6	56.8	44.7	53.6	59.4	58.9	52.0
NuTech/G2 Genetics	20N03E	2.0	E3	53.0	54.6	54.9	40.2	58.6	64.9	57.5	42.5
Viking	2018N	2.0	Conv	52.7	53.5	55.0	42.8	55.8	61.8	52.4	51.0
Experiment Mean				59.8			47.8	63.3	66.0	62.6	59.4
Minimum Mean				52.7			38.9	53.6	56.0	52.4	42.5
Maximum Mean				65.1			55.2	71.3	74.3	68.9	67.9
LSD(0.25)				2.5			3.5	3.7	4.1	2.8	3.5
Coefficient of Variability				6.4			7.6	6.2	6.7	4.9	6.4

Table 7. North district, 2020 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
Pioneer	P27A17X	2.7	RR2X	65.5	63.4	68.8	47.4	72.4	70.3	70.2	65.9
Golden Harvest	GH2788X	2.7	RR2X	64.7	65.2	65.9	54.2	70.9	70.4	65.1	62.2
Golden Harvest	GH2329X	2.3	RR2X	64.6	62.8	68.5	48.7	68.2	71.7	68.6	65.2
Credenz	CZ 2760GTLL	2.7	LLGT27	64.3	63.1	65.9	47.9	76.4	64.9	66.0	66.8
Cornelius	CB24X64	2.4	RR2X	63.9	62.3	66.3	51.6	68.2	67.0	67.4	64.5
Titan Pro	25E0	2.5	E3	63.7	61.9	68.4	40.5	73.3	71.8	65.0	68.2
Cornelius	CB26X78	2.6	RR2X	63.5	60.7	67.6	43.8	71.3	67.1	65.5	70.3
Four Star	3X241	2.4	RR2X	63.5	62.5	66.9	48.0	70.4	69.0	63.0	68.6
NK Brand	S23-G5X	2.3	RR2X	63.4	62.5	67.9	50.3	64.7	72.3	65.4	66.1
Iowa State	IAS25C1	2.5	Conv	63.3	63.5	65.2	50.4	70.4	69.5	64.3	61.9
Four Star	3X262	2.6	RR2X	63.3	59.8	65.2	49.9	70.4	59.2	68.6	68.0
Asgrow	AG27X0	2.7	RR2X	62.8	60.7	65.4	45.6	71.9	64.5	65.0	66.6
Pioneer	P23A32X	2.3	RR2X	62.7	60.5	64.7	47.0	72.8	61.7	65.5	66.7
NK Brand	S27-M8X	2.7	RR2X	62.6	60.9	66.0	48.3	68.5	65.9	68.3	63.8
Four Star	3X271	2.7	RR2X	62.4	59.9	65.6	46.3	66.5	66.9	65.1	64.8
Blue River	24DC3	2.4	Conv	62.1	62.0	64.7	46.1	70.1	69.8	60.2	64.1
NuTech/G2 Genetics	26N04E	2.6	E3	61.9	60.2	65.1	43.8	69.9	66.8	62.6	65.9
NuTech/G2 Genetics	24N04E	2.4	E3	61.9	60.9	64.1	43.9	72.5	66.4	61.1	64.8
Renk	G2550E	2.5	E3	61.7	60.9	64.4	47.0	70.1	65.7	63.5	63.8
Renk	RS248NX	2.4	RR2X	61.7	62.0	64.7	45.3	68.6	72.2	63.3	58.5
Xitavo	XO 2501E	2.5	E3	61.6	59.7	65.1	46.6	66.3	66.1	64.8	64.5
P3 Genetics	2126E	2.6	E3	61.4	59.9	63.4	45.9	69.6	64.3	58.6	67.2
Renk	G2350E	2.3	E3	60.3	58.1	64.6	47.7	60.1	66.4	64.1	63.2
NuTech/G2 Genetics	24N02E	2.4	E3	60.2	59.8	63.5	48.5	62.2	68.8	59.8	61.7
Iowa State	IAS23HS2	2.3	Conv	59.7	58.4	61.0	48.4	66.8	60.0	61.5	61.3
Asgrow	AG26X0	2.6	RR2X	59.7	57.7	62.7	44.6	65.0	63.6	63.2	61.4
P3 Genetics	1924E	2.4	E3	59.5	59.0	62.5	47.2	62.8	67.0	62.6	58.1
Viking	2340KN	2.3	Conv	59.4	58.2	61.6	43.2	68.6	62.7	57.7	64.6
Xitavo	XO 2391E	2.3	E3	59.2	57.9	62.4	43.9	64.2	65.6	61.2	60.3
P3 Genetics	2023E	2.3	E3	58.2	58.4	61.1	46.2	61.7	67.4	58.9	56.9
Pioneer	P25A27X	2.5	RR2X	58.2	57.0	61.0	38.7	69.8	62.6	59.6	60.8
Dyna-Gro	S24EN50	2.4	E3	58.0	55.6	61.6	44.0	60.3	62.4	61.8	60.6
Dyna-Gro	SX20723EN	2.3	E3	58.0	56.2	61.1	50.0	56.3	62.4	62.1	58.7
Viking	2418N	2.4	Conv	57.9	58.1	58.5	45.9	68.2	60.3	57.7	57.6
Xitavo	XO 2711E	2.7	E3	57.3	55.4	59.5	43.6	65.1	57.5	58.6	62.4
Experiment Mean				61.5			46.6	67.8	66.0	63.3	63.6
Minimum Mean				57.3			38.7	56.3	57.5	57.7	56.9
Maximum Mean				65.5			54.2	76.4	72.3	70.2	70.3
LSD(0.25)				2.5			3.5	3.7	4.1	2.8	3.5
Coefficient of Variability				6.4			7.6	6.2	6.7	4.9	6.4



Table 8. Central district, 2020 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	Mason-ville	Clarence
Cornelius	CB27X81	2.7	RR2X	63.0	58.3	62.7	69.0	This test was discarded.	47.7	58.9	81.4
Dyna-Gro	S25XT99	2.5	RR2X	61.9	60.9	67.1	61.6		60.1	53.4	87.7
NK Brand	S27-M8X	2.7	RR2X	61.6	59.2	60.7	65.7		52.7	47.1	82.3
Four Star	3X271	2.7	RR2X	61.6	63.9	67.0	64.2		63.7	55.6	81.8
Pioneer	P27A17X	2.7	RR2X	61.2	59.4	63.0	66.6		52.2	54.7	82.2
Renk	G2550E	2.5	E3	60.7	61.4	64.3	64.4		58.3	53.5	81.2
Dyna-Gro	S27EN89	2.7	E3	60.7	57.4	60.3	66.9		47.9	53.1	79.9
Credenz	CZ 2550GTLL	2.5	LLGT27	60.2	57.1	64.1	59.0		55.1	57.8	79.3
Credenz	CZ 2760GTLL	2.7	LLGT27	60.1	60.2	63.8	66.7		53.7	54.9	82.9
Xitavo	XO 2501E	2.5	E3	60.0	56.3	63.2	62.0		50.6	54.2	84.8
Dyna-Gro	SX20723EN	2.3	E3	59.8	59.2	61.0	64.0		54.3	50.4	78.2
Renk	RS248NX	2.4	RR2X	59.6	57.6	59.4	64.0		51.1	49.4	77.6
Asgrow	AG27X0	2.7	RR2X	59.5	58.3	61.9	66.4		50.3	54.2	81.2
Pioneer	P23A32X	2.3	RR2X	59.5	55.8	59.2	65.2		46.5	50.1	80.9
Golden Harvest	GH2552X	2.5	RR2X	59.4	61.6	64.5	64.2		59.0	58.4	76.0
Asgrow	AG26X0	2.6	RR2X	59.3	61.5	60.8	69.0		53.9	51.6	76.8
Titan Pro	25E0	2.5	E3	58.8	58.1	64.1	61.6		54.6	56.6	81.1
NuTech/G2 Genetics	24N02E	2.4	E3	58.3	58.7	62.2	60.0		57.4	53.3	76.1
Iowa State	IAS25C1	2.5	Conv	58.1	52.1	59.4	61.7		42.5	56.2	79.3
Cornelius	CB24X64	2.4	RR2X	58.1	56.0	58.3	65.2		46.7	49.2	79.1
NK Brand	S23-G5X	2.3	RR2X	58.0	58.6	61.1	63.9		53.3	51.9	78.3
P3 Genetics	1924E	2.4	E3	58.0	55.7	59.6	58.1		53.3	50.4	75.3
Four Star	3X241	2.4	RR2X	57.8	58.6	59.2	64.5		52.6	47.6	77.3
NuTech/G2 Genetics	26N04E	2.6	E3	57.8	54.2	63.1	55.5		53.0	53.5	82.7
NuTech/G2 Genetics	24N04E	2.4	E3	57.5	58.1	63.1	59.8		56.3	56.7	76.1
Four Star	3X262	2.6	RR2X	57.4	55.7	61.6	59.8		51.7	54.1	78.9
P3 Genetics	2126E	2.6	E3	56.8	54.1	58.8	60.0		48.2	52.8	75.5
Xitavo	XO 2391E	2.3	E3	56.7	54.8	59.0	60.7		48.8	50.4	77.6
Pioneer	P25A27X	2.5	RR2X	56.4	53.9	57.0	62.3		45.6	51.1	74.4
Viking	O.2702	2.7	Conv	56.1	55.1	57.4	62.2		47.9	49.6	74.7
Golden Harvest	GH2329X	2.3	RR2X	56.1	56.2	56.9	64.5		48.0	52.2	70.5
Cornelius	CB26X78	2.6	RR2X	55.8	53.9	62.1	56.6		51.1	57.3	77.8
Blue River	24DC3	2.4	Conv	54.6	53.1	58.0	52.8		53.4	50.9	69.8
Iowa State	IAS23HS2	2.3	Conv	54.4	47.2	56.0	55.2		39.2	52.7	76.1
Xitavo	XO 2711E	2.7	E3	53.9	53.8	57.8	53.5		54.0	49.8	69.5
Dyna-Gro	S24EN50	2.4	E3	51.8	51.5	53.1	58.3		44.6	44.2	70.5
Viking	2418N	2.4	Conv	48.6	48.1	49.7	54.6		41.7	46.9	60.6
Experiment Mean				58.1			61.9		51.4	52.6	77.7
Minimum Mean				48.6			52.8		39.2	44.2	60.6
Maximum Mean				63.0			69.0		63.7	58.9	87.7
LSD(0.25)				3.0			4.2		5.1	2.9	3.5
Coefficient of Variability				9.9			7.3		9.6	5.9	4.8



Table 9. Central district, 2020 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
Credenz	CZ 3099GTLL	3.0	LLGT27	62.8	62.6	66.2	69.7	This test was discarded.	55.5	60.8	82.4
Xitavo	XO 3131E	3.1	E3	62.4	64.6	68.7	67.1		62.2	59.6	84.2
Cornelius	CB29X33	2.9	RR2X	62.4	58.1	64.2	65.7		50.6	58.5	83.5
Titan Pro	28E8	2.8	E3	61.0	55.6	63.8	58.6		52.6	56.5	82.3
Renk	RS301NX	3.0	RR2X	60.3	58.7	63.4	63.9		53.5	56.3	80.3
Renk	G2840E	2.8	E3	60.3	59.5	65.6	58.1		61.0	52.7	83.0
Renk	RS280NX	2.8	RR2X	60.3	56.7	63.0	65.3		48.1	58.9	82.0
Four Star	3X301	3.0	RR2X	60.2	61.1	61.5	72.0		50.1	56.5	77.8
Dyna-Gro	S28XT58	2.8	RR2X	59.8	59.1	61.1	68.5		49.7	54.2	79.6
Blue River	32DC8	3.2	Conv	59.8	62.9	62.8	68.6		57.2	53.3	77.9
NK Brand	S30-M9X	3.0	RR2X	59.6	58.1	60.7	65.1		51.2	53.6	77.2
Golden Harvest	GH3088X	3.0	RR2X	59.3	60.4	61.7	68.4		52.3	55.7	76.9
Pioneer	P31A22X	3.1	RR2X	59.3	59.2	61.7	66.7		51.7	55.1	78.3
P3 Genetics	1928E	2.8	E3	59.0	58.5	61.1	64.0		53.0	51.3	79.0
Titan Pro	30E9	3.0	E3	59.0	61.0	62.4	64.0		58.1	53.1	75.9
Credenz	CZ 2830GTLL	2.8	LLGT27	58.9	57.1	62.2	61.3		53.0	56.8	76.9
Blue River	29DC5	2.9	Conv	58.9	57.7	62.8	62.4		53.0	55.5	80.1
Asgrow	AG29X9	2.9	RR2X	58.8	61.1	61.4	66.5		55.7	51.4	77.2
Xitavo	XO 2921E	2.9	E3	58.8	63.5	63.3	70.1		56.8	50.8	82.2
Dyna-Gro	S32XS71	3.2	RR2X	58.5	55.8	60.7	62.6		49.0	56.0	77.2
Dyna-Gro	S32EN01	3.2	E3	58.4	61.4	61.2	65.2		57.5	55.7	70.3
Asgrow	AG32X0	3.2	RR2X	58.4	59.2	62.5	65.8		52.6	54.2	80.6
Golden Harvest	GH2981X	2.9	RR2X	58.4	51.7	58.6	59.3		44.2	55.6	76.1
NuTech/G2 Genetics	31N06E	3.1	E3	58.3	60.8	64.1	62.0		59.6	52.4	80.3
NuTech/G2 Genetics	30N05E	3.0	E3	58.0	60.8	61.6	68.4		53.3	53.9	77.8
Iowa State	IAS31C1	3.1	Conv	57.8	59.7	62.6	62.6		56.8	53.6	77.4
NK Brand	S29-K3X	2.9	RR2X	57.7	55.4	59.2	61.5		49.3	54.7	73.6
P3 Genetics	2131E	3.1	E3	57.6	58.2	61.1	63.4		52.9	51.9	78.5
P3 Genetics	2029E	2.9	E3	57.6	58.8	60.3	66.9		50.8	53.3	76.8
NuTech/G2 Genetics	30N03E	3.0	E3	57.3	58.6	61.3	60.4		56.9	46.9	80.0
Renk	G3040E	3.0	E3	57.0	57.1	62.4	60.1		54.1	54.0	79.2
Dyna-Gro	S30EN70	3.0	E3	56.9	58.5	61.0	66.1		50.9	51.9	80.1
NuTech/G2 Genetics	28N02E	2.8	E3	56.5	55.1	61.8	58.8		51.5	50.1	83.8
Pioneer	P29A25X	2.9	RR2X	56.4	57.4	59.8	64.3		50.5	52.7	76.3
Iowa State	IAS29H01	2.9	Conv	49.9	44.5	53.3	50.9		38.2	48.6	73.2
Experiment Mean				58.7			64.1		52.9	54.2	78.8
Minimum Mean				49.9			50.9		38.2	46.9	70.3
Maximum Mean				62.8			72.0		62.2	60.8	84.2
LSD(0.25)				3.0			4.2		5.1	2.9	3.5
Coefficient of Variability				9.9			7.3		9.6	5.9	4.8

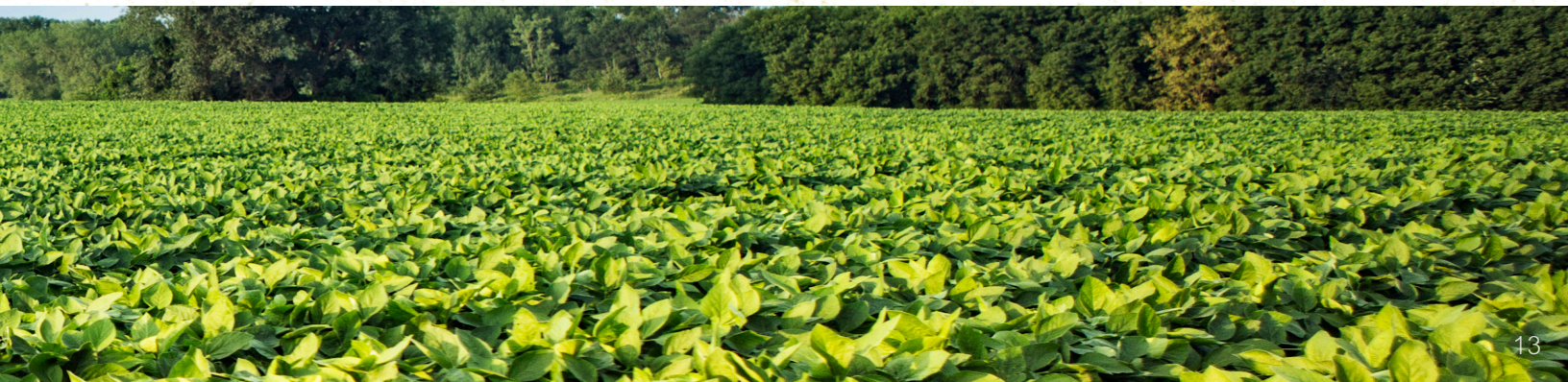


Table 10. South district, 2020 district and single-location means. Early-season test, MG $\leq$ 3.2.

Company	Variety	MG	Herb Tech	District Means			Single Location Yield				
				Yield Bu/A	SW Yield	SE Yield	Lewis	Corning	Milo	Batavia	Crawfordsville
Xitavo	XO 3131E	3.1	E3	68.7	71.7	65.9	71.3	72.1	This test was discarded.	59.4	72.5
Credenz	CZ 3099GTLL	3.0	LLGT27	68.2	72.7	64.0	73.8	71.6		56.5	71.4
NuTech/G2 Genetics	31N06E	3.1	E3	68.1	69.3	67.1	69.3	69.4		57.1	77.2
Pioneer	P31A22X	3.1	RR2X	67.6	72.8	62.3	70.4	75.3		54.9	69.7
Renk	RS301NX	3.0	RR2X	67.4	71.0	63.6	66.3	75.7		56.3	70.9
Four Star	3X301	3.0	RR2X	67.3	72.2	62.6	70.5	73.9		53.7	71.4
NK Brand	S30-E3	3.0	E3	66.8	70.3	62.8	67.9	72.7		56.8	68.7
NuTech/G2 Genetics	30N05E	3.0	E3	66.8	70.2	63.5	68.6	71.8		56.0	71.1
NuTech/G2 Genetics	28N02E	2.8	E3	66.5	69.6	63.2	65.9	73.2		55.4	71.0
Asgrow	AG32X0	3.2	RR2X	66.5	70.2	62.9	68.4	72.0		54.0	71.8
Dyna-Gro	S32EN01	3.2	E3	66.4	73.8	58.5	72.3	75.3		54.1	62.9
Pioneer	P29A25X	2.9	RR2X	66.0	73.6	58.5	73.5	73.7		54.4	62.6
Renk	RS280NX	2.8	RR2X	65.7	68.1	63.0	65.6	70.5		58.5	67.5
Credenz	CZ 2830GTLL	2.8	LLGT27	65.6	68.5	62.8	66.6	70.4		51.2	74.5
Asgrow	AG29X9	2.9	RR2X	65.5	70.3	60.9	71.1	69.5		53.4	68.4
Dyna-Gro	S32XS71	3.2	RR2X	65.4	66.6	64.5	65.8	67.4		55.8	73.2
Renk	G3040E	3.0	E3	65.1	71.3	59.3	69.7	73.0		52.5	66.2
Titan Pro	28E8	2.8	E3	65.1	68.0	62.2	67.3	68.8		57.6	66.9
Dyna-Gro	S28XT58	2.8	RR2X	64.6	68.0	61.4	67.5	68.5		55.7	67.0
NK Brand	S28-E3	2.8	E3	64.1	66.8	61.7	68.8	64.9		55.1	68.3
Blue River	32DC8	3.2	Conv	63.9	69.4	57.8	68.2	70.6		54.2	61.3
Iowa State	IAS31C1	3.1	Conv	63.3	69.9	56.8	71.2	68.5		50.6	63.0
Dyna-Gro	S30EN70	3.0	E3	63.0	67.6	58.4	64.7	70.5		51.2	65.5
NuTech/G2 Genetics	30N03E	3.0	E3	62.3	65.7	58.9	64.4	67.0		53.8	64.0
Xitavo	XO 2921E	2.9	E3	61.9	66.4	57.3	65.2	67.6		51.5	63.0
Iowa State	IAS29HO1	2.9	Conv	61.7	67.1	56.7	69.1	65.2		51.6	61.8
Experiment Mean				65.5			68.6	70.7		54.7	68.1
Minimum Mean				61.7			64.4	64.9		50.6	61.3
Maximum Mean				68.7			73.8	75.7		59.4	77.2
LSD(0.25)				2.5			3.1	2.7		2.8	3.1
Coefficient of Variability				4.9			4.8	4.2		5.7	4.8



Table 11. South district, 2020 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
Dyna-Gro	S35EN99	3.5	E3	73.1	76.7	69.3	76.2	77.2	This test was discarded.	60.2	78.4
P3 Genetics	2034E	3.4	E3	72.0	76.4	67.3	74.2	78.6		58.3	76.4
NK Brand	S39-G2X	3.9	RR2X	71.5	75.2	68.1	72.4	78.1		58.9	77.3
Asgrow	AG33X0	3.3	RR2X	71.4	73.3	69.2	71.3	75.3		59.8	78.5
NuTech/G2 Genetics	35N03E	3.5	E3	71.4	74.8	67.9	73.3	76.3		60.3	75.4
P3 Genetics	2136E	3.6	E3	71.4	75.2	67.4	72.8	77.7		59.7	75.2
NK Brand	S35-E3	3.5	E3	71.3	75.9	66.3	73.1	78.8		58.7	74.0
Xitavo	XO 3651E	3.6	E3	71.2	74.3	67.8	75.4	73.3		61.5	74.1
Credenz	CZ 3480GTLL	3.4	LLGT27	70.2	75.8	64.5	72.8	78.9		55.5	73.4
Cornelius	CB33X17	3.3	RR2X	70.1	72.9	67.6	70.0	75.7		60.3	74.9
Pioneer	P37A27X	3.7	RR2X	69.8	73.8	65.8	74.0	73.5		58.5	73.2
Credenz	CZ 3750GTLL	3.7	LLGT27	69.7	76.7	63.2	76.9	76.6		56.0	70.4
Renk	RS357NX	3.5	RR2X	69.7	74.6	64.5	75.0	74.2		58.3	70.7
Cornelius	CB38X89	3.8	RR2X	69.4	70.0	69.2	67.5	72.5		61.8	76.6
Credenz	CZ 3309GTLL	3.3	LLGT27	68.8	72.7	64.9	67.6	77.8		55.6	74.1
Credenz	CZ 3519GTLL	3.5	LLGT27	68.6	73.9	63.3	72.2	75.6		56.5	70.1
NuTech/G2 Genetics	39N05E	3.9	E3	68.3	74.1	62.2	74.1	74.1		55.8	68.7
Dyna-Gro	S36XT91	3.6	RR2X	68.2	70.2	65.9	67.7	72.8		54.2	77.6
Renk	RS379NSX	3.7	RR2X	68.1	67.8	67.7	62.9	72.8		60.7	74.7
NuTech/G2 Genetics	36N03E	3.6	E3	67.9	73.7	62.4	72.8	74.7		52.6	72.1
Renk	G3350E	3.3	E3	67.6	75.1	59.9	76.3	73.9		52.3	67.5
Dyna-Gro	S37EN39	3.7	E3	67.3	73.1	61.4	69.7	76.6		52.7	70.1
NuTech/G2 Genetics	39N04E	3.9	E3	67.2	69.3	65.1	70.4	68.3		55.9	74.3
P3 Genetics	2039E	3.9	E3	67.0	72.7	61.3	72.2	73.2		56.9	65.7
Credenz	CZ 3840GTLL	3.8	LLGT27	66.8	75.5	58.3	75.3	75.7		51.2	65.5
Cornelius	CB36X22	3.6	RR2X	66.5	69.1	63.9	67.6	70.6		53.5	74.3
Titan Pro	33E0	3.3	E3	66.4	73.4	59.4	72.3	74.5		52.3	66.4
Xitavo	XO 3341E	3.3	E3	66.4	74.2	58.5	73.6	74.8		51.2	65.8
Titan Pro	37E9	3.7	E3	66.4	71.6	61.0	69.6	73.5		55.6	66.5
Blue River	35DC2	3.5	Conv	66.2	72.5	60.1	69.3	75.7		52.6	67.5
Pioneer	P33A53X	3.3	RR2X	65.6	72.8	58.7	71.4	74.3		45.0	72.3
Credenz	CZ 3660GTLL	3.6	LLGT27	65.5	72.7	57.8	70.1	75.3		56.7	58.9
Credenz	CZ 3930GTLL	3.9	LLGT27	64.8	69.5	60.0	68.3	70.6		54.2	65.7
Dyna-Gro	S36ES70	3.6	E3	64.7	68.7	60.7	66.1	71.4		52.8	68.6
NuTech/G2 Genetics	34N06E	3.4	E3	64.2	69.9	58.2	67.0	72.8		52.8	63.6
NuTech/G2 Genetics	35N02E	3.5	E3	63.9	68.4	59.5	66.2	70.5		52.1	66.8
Blue River	34A7	3.4	Conv	62.3	71.9	53.0	72.8	71.0		45.4	60.5
Experiment Mean				68.1			71.4	74.5		55.6	71.0
Minimum Mean				62.3			62.9	68.3		45.0	58.9
Maximum Mean				73.1			76.9	78.9		61.8	78.5
LSD(0.25)				2.5			3.1	2.7		2.8	3.1
Coefficient of Variability				4.9			4.8	4.2		5.7	4.8

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	ACL+ILVO	X					
AG19X0	RR2X	ACL+ILVO	X					
AG20X9	RR2X	ACL+ILVO	X					
AG22X9	RR2X	ACL+ILVO	X					
AG26X0	RR2X	ACL+ILVO		X	X			
AG27X0	RR2X	ACL+ILVO		X	X			
AG29X9	RR2X	ACL+ILVO				X	X	
AG32X0	RR2X	ACL+ILVO				X	X	
AG33X0	RR2X	ACL+ILVO						X

Blue River: Blue River Hybrids, Ames, IA**www.blueriverorgseed.com (800) 370-7979**

Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
22DC6	Conv	None	X					
24DC3	Conv	None		X	X			
29DC5	Conv	None				X		
32DC8	Conv	None				X	X	
34A7	Conv	None						X
35DC2	Conv	None						X



Table 12. Entrant Information. *Continued*

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+Salt	X					
CB20X22	RR2X	CMV+Salt	X					
CB24X64	RR2X	CMV+Salt		X	X			
CB26X78	RR2X	CMV+Salt		X	X			
CB27X81	RR2X	CMV+Salt			X			
CB29X33	RR2X	CMV+Salt				X		
CB33X17	RR2X	CMV+Salt						X
CB36X22	RR2X	CMV+Salt						X
CB38X89	RR2X	CMV+Salt						X

Credenz: BASF, Griswold, IA			www.agriculture.basf.com				(402) 960-8174	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
CZ 1660GTLL	LLGT27	PV+ILVO	X					
CZ 1850GTLL	LLGT27	PV+ILVO	X					
CZ 2040GTLL	LLGT27	PV+ILVO	X					
CZ 2121GTLL	LLGT27	PV+ILVO	X					
CZ 2230GTLL	LLGT27	PV+ILVO	X					
CZ 2550GTLL	LLGT27	PV+ILVO			X			
CZ 2760GTLL	LLGT27	PV+ILVO		X	X			
CZ 2830GTLL	LLGT27	PV+ILVO				X	X	
CZ 3099GTLL	LLGT27	PV+ILVO				X	X	
CZ 3309GTLL	LLGT27	PV+ILVO						X
CZ 3480GTLL	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 3930GTLL	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
S19EN21	E3	E-VIP+Salt	X					
S21EN81	E3	E-VIP+Salt	X					
S21XT49	RR2X	E-VIP+Salt	X					
S24EN50	E3	E-VIP+Salt		X	X			
S25XT99	RR2X	E-VIP+Salt			X			
S27EN89	E3	E-VIP+Salt			X			
S28XT58	RR2X	E-VIP+Salt				X	X	
S30EN70	E3	E-VIP+Salt				X	X	
S32EN01	E3	E-VIP+Salt				X	X	
S32XS71	RR2X	E-VIP+Salt				X	X	
S35EN99	E3	E-VIP+Salt						X
S36ES70	E3	E-VIP+Salt						X
S36XT91	RR2X	E-VIP+Salt						X
S37EN39	E3	E-VIP+Salt						X
SX20723EN	E3	E-VIP+Salt		X	X			

Table 12. Entrant Information. *Continued*

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
3X192	RR2X	Spir348	X					
3X201	RR2X	Spir348	X					
3X221	RR2X	Spir348	X					
3X241	RR2X	Spir348		X	X			
3X262	RR2X	Spir348		X	X			
3X271	RR2X	Spir348		X	X			
3X301	RR2X	Spir348				X	X	
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
GH1915X	RR2X	CMV+Salt	X					
GH2230X	RR2X	CMV+Salt	X					
GH2329X	RR2X	CMV+Salt		X	X			
GH2552X	RR2X	CMV+Salt			X			
GH2788X	RR2X	CMV+Salt		X				
GH2981X	RR2X	CMV+Salt				X		
GH3088X	RR2X	CMV+Salt				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
IAR1903SCN	Conv	CMV	X					
IAS19C1	Conv	CMV	X					
IAS19C2	Conv	CMV	X					
IAS19C3	Conv	CMV	X					
IAS23HS2	Conv	CMV		X	X			
IAS25C1	Conv	CMV		X	X			
IAS29HO1	Conv	CMV				X	X	
IAS31C1	Conv	CMV				X	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
S16-K2X	RR2X	CMV+Salt	X					
S21-W8X	RR2X	CMV+Salt	X					
S23-G5X	RR2X	CMV+Salt		X	X			
S27-M8X	RR2X	CMV+Salt		X	X			
S28-E3	E3	CMV+Salt					X	
S29-K3X	RR2X	CMV+Salt				X		
S30-E3	E3	CMV+Salt					X	
S30-M9X	RR2X	CMV+Salt				X		
S35-E3	E3	CMV+Salt						X
S39-G2X	RR2X	CMV+Salt						X

Table 12. Entrant Information. *Continued*

NuTech/G2 Genetics: NuTech Seed, LLC, Ames, IA			www.nutechseed.com				(515) 232-1997	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
16N03E	E3	LMGN	X					
20N03E	E3	LMGN	X					
20N04E	E3	LMGN	X					
22N02E	E3	LMGN	X					
24N02E	E3	LMGN		X	X			
24N04E	E3	LMGN		X	X			
26N04E	E3	LMGN		X	X			
28N02E	E3	LMGN				X	X	
30N03E	E3	LMGN				X	X	
30N05E	E3	LMGN				X	X	
31N06E	E3	LMGN				X	X	
34N06E	E3	LMGN						X
35N02E	E3	LMGN						X
35N03E	E3	LMGN						X
36N03E	E3	LMGN						X
39N04E	E3	LMGN						X
39N05E	E3	LMGN						X



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
1924E	E3	CMV+Salt		X	X			
1928E	E3	CMV+Salt				X		
2021E	E3	CMV+Salt	X					
2023E	E3	CMV+Salt		X				
2029E	E3	CMV+Salt				X		
2034E	E3	CMV+Salt						X
2039E	E3	CMV+Salt						X
2119E	E3	CMV+Salt	X					
2121E	E3	CMV+Salt	X					
2126E	E3	CMV+Salt		X	X			
2131E	E3	CMV+Salt				X		
2136E	E3	CMV+Salt						X



Table 12. Entrant Information. *Continued***Pioneer: Corteva, 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	LMGN	X					
P23A32X	RR2X	LMGN		X	X			
P25A27X	RR2X	CMV		X	X			
P27A17X	RR2X	LMGN		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
G2150E	E3	Other	X					
G2190GL	LLGT27	Other	X					
G2350E	E3	Other		X				
G2550E	E3	Other		X	X			
G2840E	E3	Other				X		
G3040E	E3	Other				X	X	
G3350E	E3	Other						X
RS248NX	RR2X	Other		X	X			
RS280NX	RR2X	Other				X	X	
RS301NX	RR2X	Other				X	X	
RS357NX	RR2X	Other						X
RS379NSX	RR2X	Other						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
19E0	E3	Salt	X					
20E9	E3	Salt	X					
21E0	E3	Salt	X					
22E8	E3	Salt	X					
25E0	E3	Salt		X	X			
28E8	E3	Salt				X	X	
30E9	E3	Salt				X		
33E0	E3	Salt						X
37E9	E3	Salt						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
1940KN	Conv	None	X					
2018N	Conv	CM	X					
2155N	Conv	CM	X					
2188AT12N	Conv	CM	X					
2340KN	Conv	CM		X				
2418N	Conv	CM		X	X			
O.2702	Conv	None			X			
O.e1993	Conv	None	X					

Xitavo: M.S. Technologies, LLC, West Point, IA			www.xitavosoybeanseed.com				(800) 362-2510	
Variety	Herb Tech	Seed Treatment	North Early	North Full	Central Early	Central Full	South Early	South Full
XO 2391E	E3	PV+ILVO		X	X			
XO 2501E	E3	PV+ILVO		X	X			
XO 2711E	E3	PV+ILVO		X	X			
XO 2921E	E3	PV+ILVO				X	X	
XO 3131E	E3	PV+ILVO				X	X	
XO 3341E	E3	PV+ILVO						X
XO 3651E	E3	PV+ILVO						X



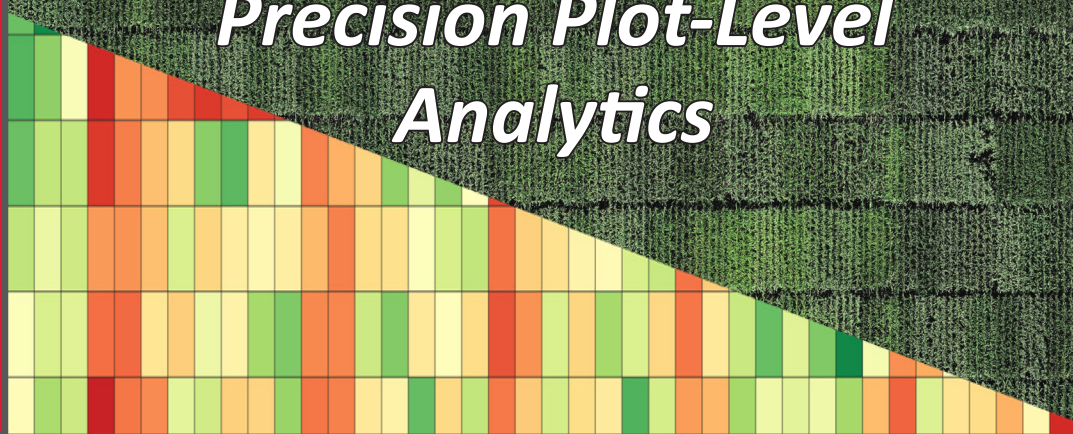
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