



2019 Corn Grain Field Crop Trials Results

Minnesota Agricultural Experiment Station and the College of Food, Agricultural and Natural Resource Sciences

The Minnesota Corn Evaluation Program was conducted by the University of Minnesota Agricultural Experiment Station to provide unbiased information for use by corn growers when they choose which brand of corn to buy and grow. The program was financed in part by entry fees from private seed companies that chose to place their entries for testing.

Test Locations

Test zones, locations and maturities are as follows:

Southern Zone:

Lamberton, Rochester and Waseca

Early Maturity Trial - 102 Relative Maturity (RM) and earlier entries.

Late Maturity Trial - 103 RM and later entries.

Central Zone:

Hutchinson, Morris and Rosemount

Early Maturity Trial - 96 RM and earlier entries.

Late Maturity Trial - 97 RM and later entries.

Northern Zone:

Crookston, Rothsay and Staples

Testing Procedure

Entries: Seed corn companies choose their entries for each zone. Entries in each trial were based on the relative maturity (RM) provided by the company. The University of Minnesota Corn Testing Committee could also choose

entries in each test. All locations tested three replications for each entry.

Presentation of Data

Yields are given for individual locations along with yields and harvest moisture contents averaged across locations for 2019.

Reported yields are adjusted to 15.5% grain moisture. Entries are ranked within a maturity group by moisture content averaged across locations for 2019.

Identification of Traits

Genetic modifications of entries will be identified using generic terms to describe the trait without identifying the specific event for genetic modification.

For example Bt will identify genetic modification for corn borer resistance but will not differentiate between the Bt 11 event, the YieldGuard corn borer event or the Herculex corn borer event.

Identifiers will be:

Bt = European corn borer resistance

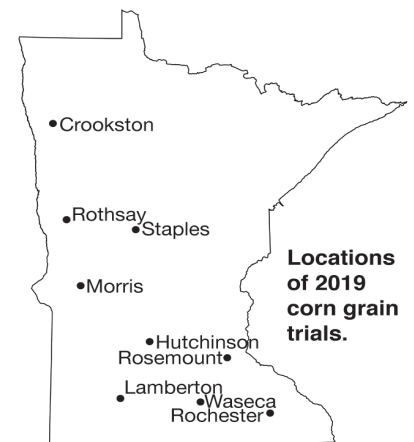
CRW = Corn rootworm resistance

Gly = Glyphosate herbicide resistance

LL = Liberty herbicide resistance

Least Significant Difference

The LSD (Least Significant Difference) figures at the bottom of the yield columns in the tables are statistical measures of variability in the trials. These values may be used to deter-



mine whether the difference between any two entries is likely to be a real difference or just natural variation.

If the yield difference between two entries is equal to or greater than the LSD, then one can be confident that the two entries probably differ in yield potential. We show LSD values with a 0.2 alpha level, which means that when two entries differ in yield by the LSD value or more one can be 80% confident that the two entries differ in yield potential. The higher-yielding one is the better entry from the yield standpoint. If the yield difference between two entries is less than the LSD, the two entries probably do not differ significantly in yield potential.

Authors and Researchers

Tom Hoverstad, Wade Ihlenfeld, Jeff Coulter, Curt Reese, Steve Quiring and Mark Hanson.

Table 1. Companies participating in the 2019 corn grain trials.

AgriGold Hybrids	5381 Akin Rd, St. Francisville, IL 62460	www.agrigold.com
Albert Lea Seed House (Viking Hybrids)	Box 127, 1414 W. Main St., Albert Lea, MN 56007	www.alseed.com
Anderson Seeds	37825 County Rd. 63, St. Peter, MN 56082	—
Blue River Hybrids	2326 230th St., Ames, IA 50014	—
Dairyland Seed Co., Inc.	Box 958, West Bend, WI 53095	www.dairylandseed.com
Dekalb (Bayer Co.)	505 150th Ave. SE, Kerkhoven, MN 56252	www.dekalb.com
Federal Hybrids	209 3rd St. NE, West Bend, IA 50597	www.federalhybrids.com
Legacy Seeds Inc.	PO Box 68, 290 Depot Street, Scandinavia, WI 54977	www.legacyseeds.com
Peterson Farms Seed	3104 164th Ave. S.E. , Harwood, ND 58092	www.petersonfarmsseed.com
Proseed	705 E Brewster St., Harvey, ND 58341	www.proseed.net
REA Hybrids	4745 6th Ave SE Aberdeen, SD 57401	www.rea-hybrids.com
Titan Pro	1301 S. 24th St., Clear Lake, IA 50428	www.titanprosci.com

Table 2. Individual trial information, 2019.

Location	Cooperators	Previous Crop	Planting Date	Harvest Date
Lamberton	Steve Quiring	Soybean	May 16	October 29
Rochester	Fritz Brietenbach	Soybean	May 14	October 31
Waseca	Tom Hoverstad	Soybean	May 7	November 1
Hutchinson	Paul Wright	Soybean	May 16	November 14
Morris	Curt Reese	Corn	May 15	October 30
Rosemount	Gerry Holz	Soybean	May 14	November 22
Crookston	Mark Hanson	Wheat	May 15	November 8
Rothsay	Troy Larson	Soybean	May 15	November 8
Staples	Ron Nelson	Soybean	May 10	November 19

Corn Grain**Planting Rate and Date**

Bushel Weight, Pounds.....56

Planting Rate, Seeds/Acre....35,000

Planting Date.....May 7-16

Table 5. Early maturity entries, central locations, 2019.

Source	Entry	Traits	Relative Maturity	Yield, Bushels/Acre at:			Average Across Locations	
				Hutchinson	Morris	Rosemount	Bu/Acre	% Moisture
94 and Earlier RM Entries:								
Viking	O.98-91	—	91	207	143	209	187	18.9
Proseed	1591	Bt, GLY	91	210	188	255	218	19.2
Viking	42-92	—	92	239	159	241	213	19.5
Proseed	1790	Bt, GLY	90	220	228	241	230	19.7
DEKALB	DKC44-80RIB	Bt, GLY	94	234	207	280	240	19.8
Anderson Seeds	742R	GLY	92	248	152	245	215	20.2
Anderson Seeds	7422	—	92	222	176	229	209	20.2
AgriGold	A624-06VT2PRO	Bt, GLY	94	233	185	249	222	20.2
Proseed	1794	Bt, GLY	94	227	167	254	216	20.4
Peterson Farms Seed	79N94	Bt, GLY	94	222	206	237	221	20.8
Blue River Organic Seed	33A16	—	92	223	132	228	194	21.2
94 RM and Earlier Averages:				226	177	242	215	20.0
95 to 97 RM Entries:								
AgriGold	A625-78VT2RIB	Bt, GLY	95	228	202	266	232	19.9
Dairyland	DS-3715AM	Bt, GLY, LL	97	221	193	270	228	20.1
Blue River Organic Seed	38G54	—	96	216	132	270	206	20.3
Dairyland	DS-3519AM	Bt, GLY, LL	96	224	217	261	234	20.4
DEKALB	DKC45-65RIB	Bt, CRW, GLY, LL	95	243	194	245	227	20.5
Anderson Seeds	795R	GLY	95	234	215	259	236	20.5
Anderson Seeds	7995	—	95	241	177	250	223	20.6
Viking	O.45-97	—	97	225	185	272	228	20.9
Dairyland	DS-3750AM	Bt, GLY, LL	97	227	183	256	222	21.0
Anderson Seeds	786VT2P	Bt, GLY	95	224	201	257	227	21.1
Viking	O.82-95	—	95	205	167	219	197	21.2
Federal Hybrids	4680 VT2 Pro	Bt, GLY	96	219	205	239	221	21.2
LEGACY SEEDS	L-3517 VT2P	Bt, GLY	95	230	184	267	227	21.3
Viking	46-96	—	96	223	147	261	210	21.6
Titan Pro SCI	91-95	—	95	237	219	261	239	21.6
Titan Pro SCI	85-96	—	96	243	160	271	225	21.7
AgriGold	A627-83VT2RIB	Bt, GLY	97	224	167	269	220	21.8
Viking	52-96	—	96	236	192	268	232	21.9
Titan Pro SCI	82-95 2P	Bt, GLY	95	242	189	265	232	21.9
DEKALB	DKC47-54RIB	Bt, CRW, GLY, LL	97	263	180	259	234	21.9
Anderson Seeds	745SRC	Bt, CRW, GLY, LL	97	218	200	240	219	22.1
Dairyland	DS-3550AM	Bt, GLY, LL	95	212	163	225	200	22.6
94 to 97 RM Averages:				229	185	257	224	21.2
Central Locations, Early Maturity Averages:				228	182	252	221	20.8
LSD (0.20)				16	23	13	10	0.5

Table 6. Late maturity entries, central locations, 2019.

Source	Entry	Traits	Relative Maturity	Yield, Bushels/Acre at:			Average Across Locations	
				Hutchinson	Morris	Rosemount	Bu/Acre	% Moisture
98 to 100 RM Entries:								
Viking	O.98-98	—	98	219	108	253	193	20.9
Titan Pro SCI	92-99 2P	Bt, GLY	99	243	159	268	223	21.2
Anderson Seeds	6909	—	98	220	124	249	198	21.6
Dairyland	RPM-4019AM	Bt, GLY, LL	99	215	163	250	210	21.7
Viking	44-98	—	98	210	142	259	204	21.9
LEGACY SEEDS	L-3718 DGV2P	Bt, GLY	98	255	170	275	233	22.0
AgriGold	A629-22STXRIB	Bt, CRW, GLY, LL	99	236	145	285	222	22.1
Anderson Seeds	6898	—	98	216	133	256	202	22.1
Anderson Seeds	611VT2P	Bt, GLY	100	212	160	218	197	22.1
Titan Pro SCI	91-98	—	98	210	159	247	205	22.4
Dairyland	DS-3810Q	Bt, CRW, GLY, LL	98	227	154	268	216	22.5
Anderson Seeds	611R	GLY	100	202	151	234	196	22.5
Anderson Seeds	609VT2P	Bt, GLY	98	219	158	255	211	22.5
Anderson Seeds	609R	GLY	98	233	143	272	216	22.7
LEGACY SEEDS	L-4248 VT2P	Bt, GLY	100	226	139	268	211	22.9
Titan Pro SCI	91-00	—	100	219	142	272	211	23.1
Anderson Seeds	6811	—	100	206	151	257	205	23.4
AgriGold	A629-12VT2PRO	Bt, GLY	99	229	184	271	228	23.6
DEKALB	DKC49-44RIB	Bt, CRW, GLY, LL	99	234	129	239	201	23.8
DEKALB	DKC50-08RIB	Bt, CRW, GLY, LL	100	236	150	293	226	24.3
Anderson Seeds	611SRC	Bt, CRW, GLY, LL	100	205	131	237	191	25.2
98 to 100 RM and Earlier Averages:				222	147	258	209	22.6
Later Than 100 RM Entries:								
Peterson Farms Seed	73P01	Bt, GLY	101	241	165	269	225	22.3
Anderson Seeds	5303	—	103	223	142	232	199	22.5
Proseed	19102	—	102	225	129	233	196	22.6
Peterson Farms Seed	87A01	Bt, CRW, GLY	101	246	145	255	216	22.7
Viking	O.46-02	—	102	245	171	260	225	23.5
Titan Pro SCI	84-03 2P	Bt, GLY	103	231	168	282	227	23.6
Dairyland	DS-4310Q	Bt, CRW, GLY, LL	103	239	167	252	219	23.6
LEGACY SEEDS	L-5217 VT2P	Bt, GLY	103	244	172	274	230	23.7
Dairyland	RPM-4018AM	Bt, GLY, LL	101	234	153	239	209	23.7
Peterson Farms Seed	88B03	Bt, CRW, GLY	103	240	149	271	220	23.8
Titan Pro SCI	84-01	—	101	251	172	282	235	24.4
DEKALB	DKC52-34RIB	Bt, CRW, GLY, LL	101	238	148	258	215	24.5
Titan Pro SCI	82-04 2P	Bt, GLY	104	222	149	257	209	24.5
DEKALB	DKC54-38RIB	Bt, CRW, GLY, LL	104	228	160	261	217	25.4
DEKALB	DKC55-53RIB	Bt, CRW, GLY, LL	105	228	149	236	205	25.4
Dairyland	DS-9804RA	Bt, CRW, GLY, LL	103	197	142	262	200	25.4
DEKALB	DKC54-64RIB	Bt, CRW, GLY, LL	105	229	153	265	216	26.0
Titan Pro SCI	91-02	—	102	217	131	271	206	26.4
Titan Pro SCI	TP 40-03	—	103	242	156	249	216	26.5
Anderson Seeds	6581	—	101	241	138	262	214	26.6
AgriGold	A635-54VT2RIB	Bt, GLY	105	254	174	283	237	26.7
Anderson Seeds	5904	—	104	240	136	273	216	27.3
DEKALB	DKC53-27RIB	Bt, CRW, GLY, LL	103	231	148	240	206	28.4
Later Than 100 RM Averages:				234	153	259	216	24.8
Central Locations, Late Maturity Averages:				229	150	259	213	23.7
LSD (0.20)				19	22	21	12	0.7