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Making Better Decisions

**2012 Colorado Corn
Hybrid Performance Trials**

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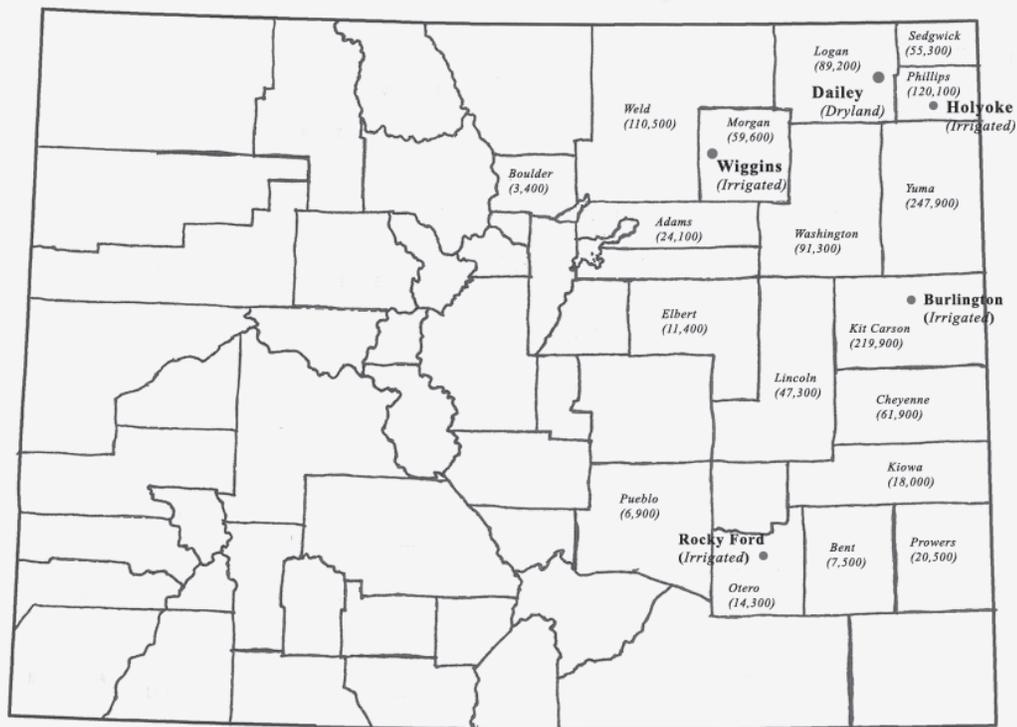
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2012 Colorado Corn Hybrid Performance Trials

Colorado State University conducts hybrid corn performance trials to provide unbiased and reliable information to Colorado corn producers so they can select the best hybrids for their production system. Variable climatic conditions, innovations from plant breeding and biotechnology, acquisitions and mergers of seed companies, and rapid development of new hybrid lines means crop performance information is increasingly important to Colorado corn producers. The corn hybrid performance trial is made possible by funding received from company entry fees and the CSU Agricultural Experiment Station.

Colorado produced approximately 172.9 million bushels of corn on 1.3 million harvested acres in 2011. The total value of production was over one billion dollars. Five irrigated and two dryland trials were planted across eastern Colorado in 2012. Irrigated locations included Burlington, Holyoke, Rocky Ford, Wiggins, and Yuma. The two dryland trials were located at Akron and Dailey. Unfortunately, we lost two trials this year, Akron was lost due to severe drought and Yuma was lost due to accidentally being harvested as a bulk crop. Fifty-seven hybrids with diverse origins, maturities, and value added traits were tested across different irrigated and dryland trial locations. Result tables for the trials are presented in the following pages. Plot sizes were approximately 150 ft². All irrigated trials were planted at 35,000 seeds per acre and both dryland trials were planted at 15,000 seeds per acre. Seed yields for all trial hybrids are reported in the tables. Yields are adjusted to 15.5% seed moisture content.

Eastern Colorado Corn Trial Locations in 2012



Area Harvested (in Acres) for some Eastern Colorado counties in 2011

2012 Irrigated Corn Hybrid Performance Trial at Burlington

Source	Hybrid	Yield ^a	Test		Plant		Lodging	Ear Drop
			Moisture	Weight	Height	Population		
		bu/ac	percent	lb/bu	in	plants/ac	percent	percent
DEKALB	DKC49-30 (GENVT3P)	196.2	13.8	60.4	79	27,007	2.2	1.1
DEKALB	DKC52-04 (GENVT3P)	190.5	14.2	60.3	78	28,750	9.1	1.5
DEKALB	DKC62-97 (GENVT3P)	187.0	15.0	60.2	85	29,774	3.0	0.0
Producers Hybrids	XP6104 VT3P	174.4	13.9	60.6	75	29,476	1.0	0.0
Triumph	1002S	171.8	15.4	59.3	85	28,479	25.5	4.4
Mycogen	2V676	168.6	15.6	60.0	84	28,277	23.9	3.7
Producers Hybrids	6624 VT3P	166.5	15.0	57.6	81	29,040	1.0	4.0
NuTech	5B-604	165.0	13.4	57.4	83	26,862	2.2	1.1
G2 Genetics	5X-502™	158.6	13.1	58.0	85	27,443	3.7	1.5
G2 Genetics	5H-0504™	157.0	15.7	60.1	84	27,878	1.6	3.8
DEKALB	DKC56-55 (GENVT3P)	153.7	14.7	61.6	84	27,614	9.2	6.5
Triumph	1217S	151.3	17.2	59.7	90	28,750	8.6	6.3
G2 Genetics	5H-806™	148.3	15.8	61.0	88	29,208	3.1	3.6
DEKALB	DKC59-88 (VT3)	146.6	16.5	61.3	85	29,911	26.2	4.4
Triumph	4401X	143.1	16.1	61.5	90	28,604	29.9	2.0
Producers Hybrids	6884 VT3P	142.5	15.1	61.2	86	27,152	2.1	1.6
Mycogen	2V707	141.1	17.0	59.8	86	30,637	5.7	2.4
Producers Hybrids	6424 VT3P	138.3	13.5	59.2	86	26,136	1.1	0.5
Mycogen	2V715	137.1	16.2	59.1	86	30,928	24.4	9.8
Mycogen	2V738	131.3	18.1	60.8	85	30,202	15.3	9.2
Triumph	1157X	127.4	15.7	59.6	89	29,756	29.1	14.6
G2 Genetics	5H-903™	126.7	14.4	58.6	83	27,878	2.1	11.5
Average		155.6	15.2	59.8	84	28,626	10.4	4.2

^bLSD (P<0.30)

26.5

^aYields corrected to 15.5% moisture.

^bIf the difference between two hybrid yields equals or exceeds the LSD value, there is a 70% chance the difference is statistically significant.

Plot size: 5' x 30'

Site Information

Collaborator: Tim Stahlecker
 Planting Date: 5/3/2012
 Harvest Date: 10/23/2012
 Previous Crop: Corn
 Fertilizer: N-P-K-S-Zn (220-60-0-15-1.5) lb/ac
 Herbicide: Roundup PowerMax and Atrazine
 Insecticide: Brigade and dimethoate
 Soil Type: Yuma-Keith silt loam

2012 Irrigated Corn Hybrid Performance Trial at Holyoke

Source	Hybrid	Yield ^a bu/ac	Moisture percent	Test	Plant	Lodging percent	Ear Drop percent	
				Weight lb/bu	Height in			Population plants/ac
NuTech	5B-604	211.5	12.8	56.5	84	28,017	4.2	2.2
DEKALB	DKC52-04 (GENVT3P)	204.0	14.1	60.1	91	27,878	6.5	0.3
DEKALB	DKC62-97 (GENVT3P)	203.6	13.6	59.2	92	27,434	6.7	0.4
G2 Genetics	5H-0504™	200.0	15.7	59.7	99	27,252	1.5	3.6
DEKALB	DKC49-30 (GENVT3P)	199.6	13.1	59.7	89	29,594	1.7	1.0
Producers Hybrids	7224 VT3P	195.8	13.4	56.9	94	28,330	13.9	2.5
Mycogen	2R547	194.1	15.2	58.9	91	26,250	4.6	1.5
G2 Genetics	5X-0004™	192.9	13.0	56.4	90	28,763	1.3	0.7
Triumph	9946S	190.1	13.8	60.0	90	28,266	0.0	0.6
Producers Hybrids	7014 VT3	189.8	14.7	56.3	96	26,228	10.7	2.6
NuTech	5N-001	185.0	12.7	56.9	89	27,975	16.9	0.4
Producers Hybrids	6424 VT3P	181.4	13.1	58.2	96	27,742	1.8	1.4
G2 Genetics	5H-806™	181.0	14.2	58.0	95	27,364	5.1	4.1
G2 Genetics	5X-502™	179.2	13.7	58.0	93	29,068	14.7	1.9
DEKALB	DKC63-07 (GENVT3P)	178.7	15.8	59.3	89	27,789	20.1	0.7
Mycogen	2V676	176.1	15.0	58.9	94	28,411	32.3	0.7
G2 Genetics	5H-501™	175.7	14.2	60.3	96	26,858	16.6	1.9
Triumph	4401X	174.8	15.6	59.5	97	28,524	17.2	4.9
Triumph	1002S	172.3	14.6	59.2	99	29,101	41.3	1.7
DEKALB	DKC56-55 (GENVT3P)	169.5	14.4	60.4	92	28,276	9.8	1.0
Mycogen	2V707	167.0	15.7	57.4	97	28,943	31.3	4.0
G2 Genetics	5H-903™	159.9	14.0	57.7	91	27,449	3.2	1.8
Mycogen	2K757	147.0	13.5	56.9	99	28,912	18.7	5.3
G2 Genetics	5H-202™	143.7	15.6	61.7	96	27,318	11.5	3.0
Producers Hybrids	6624 VT3P	116.4	13.3	56.9	96	27,975	8.0	8.4
Producers Hybrids	6884 VT3P	93.4	14.3	59.4	99	26,627	4.4	11.9
Average		176.2	14.2	58.6	94	27,936	11.7	2.6

^bLSD (P<0.30)

15.0

^aYields corrected to 15.5% moisture.

^bIf the difference between two hybrid yields equals or exceeds the LSD value, there is a 70% chance the difference is statistically significant.

Plot size: 5' x 30'

Site Information

Collaborator: Brent Adler
 Planting Date: 5/2/2012
 Harvest Date: 10/22/2012
 Previous Crop: Corn
 Fertilizer: N-P-K-S-Zn at 230-75-73-40-1.5 lb/ac
 Herbicide: Roundup, Status, and Dual
 Insecticide: Brigade
 Fungicide: Quilt
 Soil Type: Valent sand

2012 Irrigated Corn Hybrid Performance Trial at Rocky Ford

Source	Hybrid	Yield ^a bu/ac	Moisture percent	Test Weight lb/bu	Plant Height in	Silk Date days after planting	Population plants/ac
DEKALB	DKC62-09 (GENVT3P)	270.0	17.5	57.8	98	69	36,881
LG Seeds	LG2636 VT3Pro	263.6	20.1	54.7	103	68	36,590
DEKALB	DKC63-07 (GENVT3P)	263.6	18.0	57.3	95	67	33,106
LG Seeds	2642 VT3	261.9	21.6	54.0	96	67	35,138
DEKALB	DKC61-17 (GENVT3P)	261.6	17.7	56.6	93	67	36,881
Triumph	1366H	260.9	21.1	54.2	103	71	31,944
Triumph	1329H	255.6	19.7	53.6	102	69	32,234
DEKALB	DKC64-69 (GENVT3P)	252.2	18.2	58.1	94	67	36,300
DEKALB	DKC62-97 (GENVT3P)	251.2	18.5	57.2	98	66	38,333
LG Seeds	LG5630 VT3Pro	246.3	20.6	53.1	103	68	31,654
Mycogen	2A787	244.4	20.8	54.6	96	67	36,881
LG Seeds	LG2602 VT3Pro	240.4	19.2	55.0	102	69	34,848
Mycogen	2V738	227.4	18.5	56.4	103	70	35,138
Mycogen	2T784	218.9	20.1	55.4	102	70	39,204
Mycogen	2V707	207.8	19.2	55.2	100	70	32,815
Triumph	1217S	189.4	18.4	56.2	96	70	37,752
Average		244.7	19.3	55.6	99	68	35,356

^bLSD (P<0.30)

20.4

^aYields corrected to 15.5% moisture.

^bIf the difference between two hybrid yields equals or exceeds the LSD value, there is a 70% chance the difference is statistically significant.

Plot size: 5' x 31'

Site Information

Collaborators: Arkansas Valley Research Center

Planting Date: 5/1/2012

Harvest Date: 10/9/2012

Previous Crop: Alfalfa

Fertilizer: Pre-plant: N-P at 123-60 lb/ac applied dry using 18-48-0 and 82-0-0.

Post-plant: N at 90 lb/ac applied as liquid using 28-0-0.

Irrigation: Furrow (24 inches applied over 6 irrigations)

Soil Type: Rocky Ford silty clay loam

2012 Irrigated Corn Hybrid Performance Trial at Wiggins

Source	Hybrid	Yield ^a bu/ac	Moisture percent	Test Plant		Population plants/ac	Lodging percent	Ear Drop percent
				Weight lb/bu	Height in			
G2 Genetics	5X-0004™	163.8	14.0	59.1	76	29,493	3.5	2.4
DEKALB	DKC46-20 (GENVT3P)	152.2	13.4	59.4	74	28,943	5.8	3.6
DEKALB	DKC52-04 (GENVT3P)	151.1	13.5	59.3	76	28,943	3.7	1.4
NuTech	5B-604	148.2	12.6	56.6	76	30,395	28.9	2.4
DEKALB	DKC49-30 (GENVT3P)	146.8	13.2	59.8	75	29,427	2.1	0.3
Producers Hybrids	7014 VT3	139.3	14.0	58.3	79	30,105	61.0	*
Triumph	9946S	135.7	13.2	59.3	82	28,072	7.0	9.8
DEKALB	DKC56-55 (GENVT3P)	135.5	13.9	60.7	85	29,420	14.5	6.1
LG Seeds	LG2478 VT3Pro	135.0	13.7	60.2	77	27,560	15.3	4.3
Triumph	1002S	130.2	15.0	60.3	80	29,330	65.7	*
G2 Genetics	5H-0504™	129.6	13.5	59.2	80	28,929	3.1	7.2
Producers Hybrids	XP6104 VT3P	127.0	13.6	59.7	78	30,492	5.1	5.3
Producers Hybrids	6424 VT3P	125.6	13.8	59.9	85	28,829	5.2	11.5
Producers Hybrids	6624 VT3P	121.5	13.0	56.7	80	29,220	13.1	3.4
G2 Genetics	5H-501™	120.6	13.8	60.4	77	29,040	10.4	14.0
Producers Hybrids	6884 VT3P	119.1	14.4	61.3	84	29,040	5.0	10.3
G2 Genetics	5X-502™	117.6	12.3	55.6	79	29,487	9.8	4.2
Mycogen	2K594	112.5	14.8	59.5	84	29,330	58.4	*
Mycogen	2V676	111.9	14.8	60.3	78	29,330	68.9	*
Triumph	3212S	109.5	14.8	61.9	82	28,335	14.7	16.4
LG Seeds	LG5550 VT3Pro	104.6	13.5	58.1	77	28,846	6.7	8.4
NuTech	5N-001	104.0	13.0	56.6	77	29,191	21.5	4.2
LG Seeds	LG5533 VT3Pro	102.7	14.0	60.7	86	30,061	4.6	15.0
Mycogen	2T496	100.4	14.2	59.9	81	28,556	7.6	12.7
DEKALB	DKC59-88 (VT3)	99.4	15.0	61.1	76	29,524	50.5	*
G2 Genetics	5H-806™	99.0	14.4	60.1	85	28,750	4.7	11.8
LG Seeds	LG5522 VT3	98.5	13.9	59.9	84	29,088	5.2	10.8
Mycogen	2R547	95.8	14.9	59.7	86	29,040	22.7	8.3
G2 Genetics	5H-903™	89.1	13.7	57.2	85	30,122	9.3	9.5
G2 Genetics	5H-202™	86.8	13.4	59.8	81	29,814	8.3	12.3
Triumph	4401X	81.5	16.9	61.5	78	29,330	33.1	6.0
Triumph	9934S	61.8	14.5	59.4	87	29,137	18.2	16.7
Average		117.4	14.0	59.4	80	29,224	18.6	8.1

^aYields corrected to 15.5% moisture.

*Ear drop data could not be collected for hybrids with a high amount of lodging.

Data Analysis: Yield trial data could not be interpreted due to the high degree of field variability caused by severe lodging and ear drop due to a windstorm in mid-October. The yield results should not be used by farmers for selecting superior hybrids for planting.

Plot size: 5' x 30'

Site Information

Collaborator: Cooksey Farms

Planting Date: 5/1/2012

Harvest Date: 10/24/2012

2012 Dryland Corn Hybrid Performance Trial at Dailey

Source	Hybrid	Yield ^a bu/ac	Moisture percent	Test Weight lb/bu	Ear Height in	Population plants/ac
DEKALB	DKC46-20 (GENVT3P)	41.6	11.7	57.1	29	13,588
DEKALB	DKC49-30 (GENVT3P)	35.6	10.5	53.8	21	14,946
DEKALB	DKC43-10 (GENVT2P)	33.3	13.1	60.4	22	13,464
DEKALB	DKC43-27 (VT3)	27.3	12.9	59.0	23	14,543
Triumph	9946S	25.1	11.4	57.9	25	14,614
Triumph	9969S	14.4	12.7	59.7	24	14,614
Average		29.5	12.0	58.0	24	14,295
^b LSD (P<0.30)		11.8				

^aYields corrected to 15.5% moisture.

^bIf the difference between two hybrid yields equals or exceeds the LSD value, there is a 70% chance the difference is statistically significant.

Plot size: 5' x 30'

Site Information

Collaborators: Mark & Neal Lambert
 Planting Date: 5/10/2012
 Harvest Date: 10/3/2012
 Previous Crop: Wheat
 Tillage: No-till
 Fertilizer: Pre-plant: composted manure applied at 1.5 tons/ac
 Planting: N-P at 18-48 lb/ac
 Herbicides: Roundup PowerMax, Laudis, and atrazine
 Soil Type: Haxton sandy loam

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A handwritten signature in black ink, appearing to read "Jerry Johnson". The signature is written in a cursive style.

Jerry Johnson, Extension Specialist Crop Production