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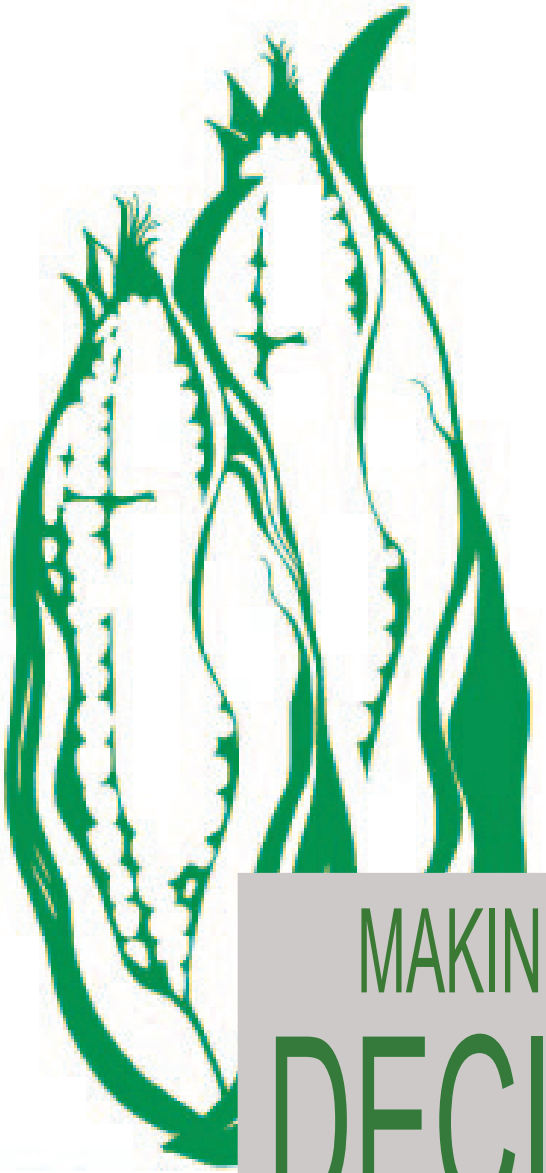
Agricultural Experiment Station

Colorado State University Crops Testing

College of Agricultural Sciences | Department of Soil and Crop Sciences | Arkansas Valley Research Center | Extension



MAKING BETTER DECISIONS

2010 Colorado Corn Variety Performance Trials

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- Burlington (Stratton) – George Stahlecker
- Haxtun (Holyoke) – Brent Adler
- Rocky Ford – Arkansas Valley Research Center
- Wiggins – Cooksey Farms
- Yuma - Larry Gardner

Research conducted by Colorado State University Crops Testing Program
Department of Soil and Crop Sciences
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Colorado Agricultural Experiment Station

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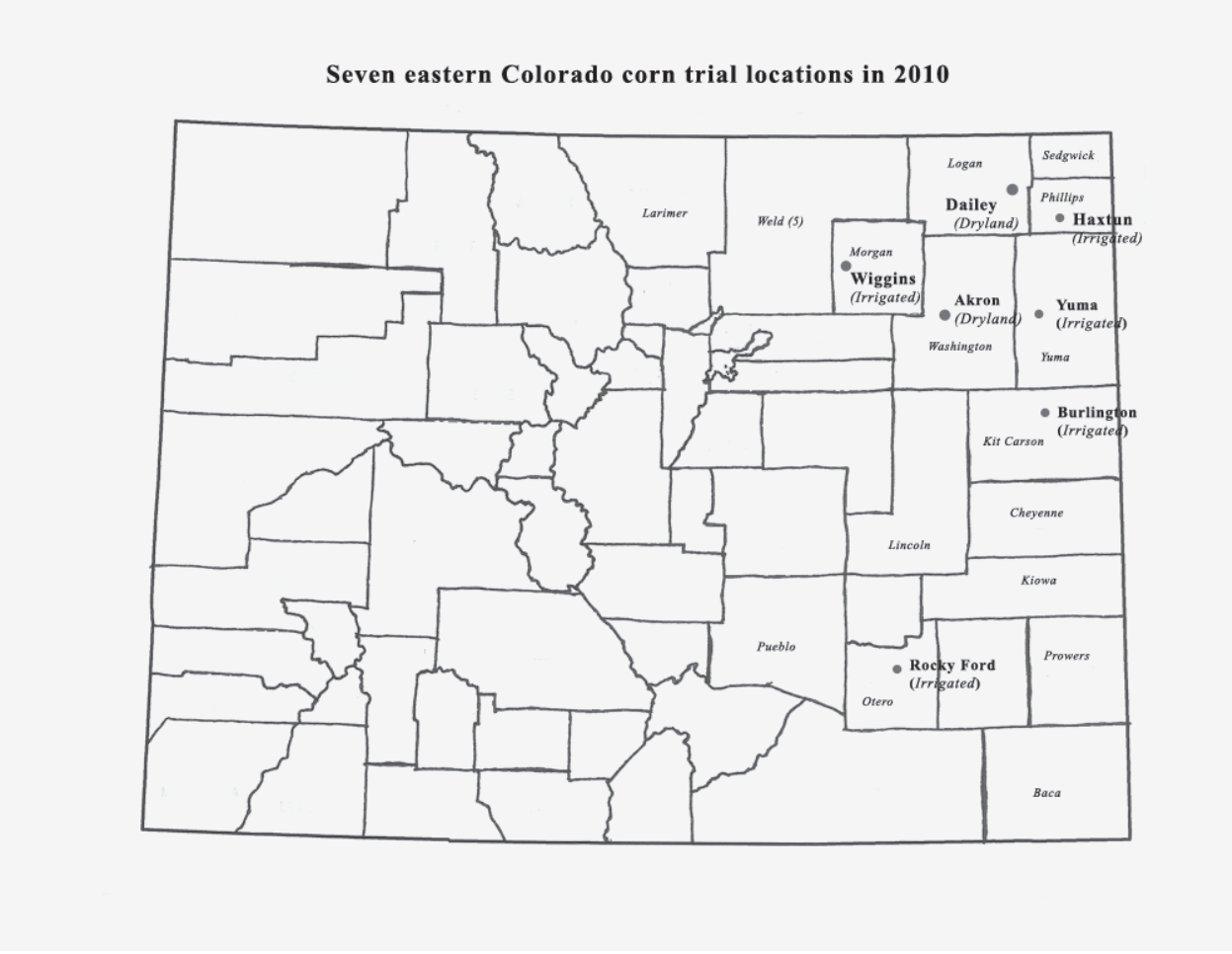
2010 Colorado Corn Hybrid Performance Trials

Introduction

Colorado State University conducts hybrid performance trials to provide unbiased and reliable information to Colorado corn producers so they can select the best hybrids for their farming conditions. Variable climatic conditions, innovations from plant breeding and biotechnology, acquisitions and mergers of seed companies, and rapid development of new hybrid lines means that unbiased crop performance information is increasingly important to Colorado corn producers.

Colorado State University personnel evaluated commercial corn hybrids under irrigation at five Eastern Colorado locations and two dryland locations in 2010. The results from these trials are presented in the following tables which are intended to be stand-alone and self-explanatory. Personnel salaries and operational costs for conducting these trials come from Colorado State University, and entry fees from seed companies.



2010 Irrigated Corn Variety Performance Trial at Burlington

Source	Hybrid	Yield[a]	Moisture	Test Weight	Plant Height	Population	Lodging
		bu/ac	percent	lb/bu	in	plants/ac	percent
Triumph Seed	1204V	248.3	24.1	55.7	97	32,912	0.6
Dekalb	DKC52-59 (VT3)	247.7	15.6	58.0	88	36,217	0.0
Producers Hybrids	7014VT3	243.5	17.5	55.8	95	34,074	0.9
Winfield Solutions	6525VT3	242.3	19.3	57.7	97	32,815	0.0
Producers Hybrids	6944VT3	239.2	18.8	56.8	98	34,170	0.0
Golden Harvest	H-9253 3000GT	233.6	19.9	56.6	97	32,228	0.0
NK Brand Seed	N61P-3000GT	233.1	17.0	57.1	102	32,138	0.0
Dekalb	DKC54-16 (VT3)	233.0	17.4	59.0	95	32,622	0.0
LG Seeds	LG2555VT3	232.7	17.6	56.9	101	34,053	0.0
Mycogen Seeds	2V732	232.4	25.4	55.7	96	33,009	0.3
Producers Hybrids	6464VT3	232.1	16.2	58.8	98	34,170	0.8
Dekalb	DKC62-63 (GENVT3P)	231.4	16.3	58.7	100	32,488	0.3
Garst	85R08-3000GT	229.4	17.8	57.9	97	34,267	1.7
Producers Hybrids	6364GT3	229.2	15.8	58.1	100	32,428	0.6
Triumph Seed	1121V	228.9	18.4	59.0	99	33,106	0.3
NK Brand Seed	N68B-3000GT	226.7	18.5	56.7	91	33,168	0.0
Producers Hybrids	7134VT3	225.9	19.2	56.5	95	32,176	4.3
Seeds 2000	104 G3	224.0	15.2	58.1	100	31,838	0.0
LG Seeds	LG2549VT3	221.8	17.8	55.5	97	33,299	0.3
Dekalb	DKC59-88 (VT3)	220.6	22.0	58.1	96	32,674	0.0
Mycogen Seeds	2A551	220.2	17.2	58.8	97	31,943	0.4
Garst	85Z64 GT/CB/LL	220.1	18.1	57.4	100	31,187	1.0
Dekalb	DKC55-24 (VT3)	219.9	14.4	59.3	94	33,493	0.0
Winfield Solutions	5757VT3	218.9	16.5	60.0	98	33,202	1.1
Mycogen Seeds	2C641	211.0	17.7	57.1	92	32,912	0.6
Mycogen Seeds	2T784	210.6	19.7	56.6	106	33,396	0.0
Golden Harvest	H-9084 GT/CB/LL	207.1	18.9	54.7	100	33,590	0.0
LG Seeds	LG2547VT3	206.7	17.1	58.0	95	32,539	0.3
Triumph Seed	1157CbRR	204.4	19.3	55.8	99	33,202	2.0
Producers Hybrids	6634VT3	203.2	15.9	58.5	94	33,202	0.6
LG Seeds	LG2544VT3	203.0	16.8	56.3	97	33,202	0.3
Winfield Solutions	4421VT3	197.7	14.1	58.6	88	32,041	0.3
Triumph Seed	5501S	195.1	15.8	57.5	102	33,493	0.9
Seeds 2000	9901 VT3	176.3	14.8	60.3	95	32,245	0.3
Average		**222.0**	**17.8**	**57.5**	**97**	**33,044**	**0.5**
[b]$LSD_{0.30}$		12.0					
$LSD_{0.05}$		23.0					

[a]Yields corrected to 15.5% moisture

[b]$LSD_{0.30}$ is most useful for producers using these results to select a variety but some collaborators find $LSD_{0.05}$ useful

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 30'

Site Information

Collaborator:	George Stahlecker
Planting Date:	5/6/2010
Harvest Date:	10/9/2010
Previous Crop:	Corn
Fertilizer:	N-P-K-S-Zn (220-60-0-15-1.25) lbs/ac
Herbicide:	Round-Up, Atrazine, and Halex
Irrigation:	Center Pivot
Soil Type:	Yuma-Kieth Silt Loam

2010 Irrigated Corn Variety Performance Trial at Rocky Ford

Source	Hybrid	Yield[a]	Moisture	Test Weight	Plant Height	Population
		bu/ac	percent	lb/bu	in	plants/ac
Dekalb	DKC64-83 (GENVT3P)	243.2	17.8	59.1	88	36,300
Garst	83P07 GT/CB/LL	235.2	24.8	51.2	99	30,129
Dekalb	DKC64-69 (GENVT3P)	232.9	18.7	55.7	80	28,677
LG Seeds	LG2642VT3	220.9	22.0	54.1	91	31,581
Triumph Seeds	1420X	217.7	21.3	54.9	90	29,403
Dekalb	DKC62-97 (GENVT3P)	213.6	18.9	56.1	90	31,218
Garst	83E90-3000GT	212.2	22.6	53.5	98	27,951
LG Seeds	LG2555VT3	210.3	17.4	55.8	98	33,759
Mycogen Seeds	2V732	209.8	20.2	55.7	94	29,766
Croplan Genetics	6818VT3	208.5	21.2	55.3	88	28,314
NK Brand Seed	N68B-3000GT	207.8	17.7	55.3	87	32,307
Golden Harvest	H-9084 GT/CB/LL	206.5	18.9	54.5	93	31,581
Mycogen Seeds	X20785	204.5	21.1	54.0	87	27,225
Dekalb	DKC62-63 (GENVT3P)	200.9	20.7	55.7	94	29,766
LG Seeds	LG2616VT3	199.5	16.7	55.5	97	30,855
Golden Harvest	H-9173 3000GT	197.9	21.7	53.1	97	30,492
Triumph Seeds	1326X	196.8	18.6	56.7	84	28,677
Triumph Seeds	7514S	195.1	22.3	53.9	97	29,040
Mycogen Seeds	2T784	190.5	20.2	54.5	92	25,410
LG Seeds	LG2620VT3	187.1	15.7	57.1	99	32,307
NK Brand Seed	N74C-3000GT	185.7	19.7	54.8	97	27,225
Dekalb	DKC63-84 (VT3)	183.8	21.3	54.9	94	33,396
Croplan Genetics	5757VT3	169.5	17.0	58.9	90	27,225
Croplan Genetics	4421VT3	168.2	13.8	56.6	82	34,122
Average		**204.1**	**19.6**	**55.3**	**92**	**30,280**
[b]$LSD_{0.30}$		16.8				
$LSD_{0.05}$		32.3				

[a]Yields corrected to 15.5% moisture

[b]$LSD_{0.30}$ is most useful for producers using these results to select a variety but some collaborators find $LSD_{0.05}$ useful

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 30'

Site Information

Collaborator: Arkansas Valley Research Center
Planting Date: 4/30/2010
Harvest Date: 10/11/2010 and 10/12/2010
Previous Crop: Alfalfa
Fertilizer: N-P-K (186-104-0) lbs/ac
Herbicide: 32 oz./ac of glyphosate and 8 oz./ac of Banvel
Irrigation: Furrow
Soil Type: Rocky Ford Silty Clay Loam

Note: Some plot variability was due to isolated soil compaction and irrigation issues.

2010 Irrigated Corn Variety Performance Trial at Wiggins

Source	Hybrid	Yield[a]	Moisture	Test Weight	Plant Height	Population	Lodging
		bu/ac	percent	lb/bu	in	plants/ac	percent
Mycogen Seeds	2C641	251.3	14.0	60.4	86	31,944	0.9
Golden Harvest	H-8577 3000GT	234.7	12.8	57.9	97	32,718	0.9
Dekalb	DKC54-16 (VT3)	229.6	13.7	61.1	89	32,912	0.3
Producers Hybrids	6634VT3	228.5	13.8	59.9	86	31,869	2.8
Producers Hybrids	6364GT3	222.6	15.2	60.0	94	31,750	2.4
LG Seeds	LG2525RR	212.7	15.6	61.8	91	32,417	2.5
Producers Hybrids	6464VT3	208.1	14.3	60.7	95	32,525	3.6
Triumph Seeds	3212X	205.4	15.1	61.3	90	29,407	0.7
Dekalb	DKC55-24 (VT3)	205.2	13.3	60.9	87	31,460	0.0
Garst	86G35-3000GT	204.3	15.0	60.4	90	30,589	0.0
Dekalb	DKC62-63 (GENVT3P)	203.8	13.6	60.8	90	31,066	6.2
Dekalb	DKC59-88 (VT3)	203.0	16.1	60.3	85	32,997	5.1
NK Brand Seed	N53W-3000GT	202.0	14.3	59.3	93	30,998	1.8
Triumph Seeds	9811X	201.8	13.6	61.8	94	30,104	1.0
LG Seeds	LG2509GT3	200.3	14.7	60.0	98	32,234	1.8
Dekalb	DKC52-59 (VT3)	199.9	12.7	58.7	83	32,048	2.5
Triumph Seeds	5501S	195.1	15.4	60.2	91	31,116	5.4
Triumph Seeds	TRX 01024S	194.5	15.9	59.6	92	29,533	0.3
Mycogen Seeds	2P612	192.6	16.7	59.5	88	29,771	5.4
LG Seeds	LG2478STX	188.4	12.3	59.6	87	31,670	1.3
Garst	87T18-3000GT	184.5	16.1	64.7	84	28,122	0.0
Golden Harvest	H-7949 3000GT	184.3	13.0	58.3	97	30,948	7.2
Seeds 2000	104 G3	181.1	14.4	59.7	93	29,642	2.1
Seeds 2000	9901 VT3	180.1	11.8	60.8	85	31,727	1.2
Mycogen Seeds	2H523	178.8	14.8	61.0	91	33,541	4.4
Mycogen Seeds	2A551	175.4	15.4	61.5	88	31,329	1.8
NK Brand Seed	N47V-3000GT	168.4	15.1	59.7	83	32,359	0.9
Average		**201.4**	**14.4**	**60.4**	**90**	**31,363**	**2.3**
[b]$LSD_{0.30}$		17.2					
$LSD_{0.05}$		32.9					

[a]Yields corrected to 15.5% moisture

[b]$LSD_{0.30}$ is most useful for producers using these results to select a variety but some collaborators find $LSD_{0.05}$ useful

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 30'

Site Information

Collaborator: Cooksey Farms
Planting Date: 5/5/2010
Harvest Date: 11/6/2010
Previous Crop: Pumpkins
Fertilizer: N-P-K (200-40-10) lbs/ac
Herbicide: Lumax
Irrigation: Sprinkler
Soil Type: Clay Loam

2010 Irrigated Corn Variety Performance Trial at Haxtun

Source	Hybrid	Yield[a]	Moisture	Test Weight	Plant Height	Population
		bu/ac	percent	lb/bu	in	plants/ac
Mycogen Seeds	2C641	254.2	15.2	59.3	90	31,868
Dekalb	DKC54-16 (VT3)	248.8	14.2	60.3	91	34,461
Mycogen Seeds	2P612	246.0	14.1	57.7	94	34,074
LG Seeds	LG2525RR	245.7	14.4	60.2	97	31,911
Golden Harvest	H-8577 3000GT	242.0	13.9	57.6	97	33,963
NK Brand Seed	N68B-3000GT	240.5	16.3	58.0	90	33,493
Dekalb	DKC55-24 (VT3)	233.3	13.1	59.8	92	32,943
Garst	86T82-3000GT	232.5	13.7	58.6	97	33,009
Garst	85R08-3000GT	232.2	15.2	58.7	97	32,204
Dekalb	DKC62-63 (GENVT3P)	230.6	14.5	59.5	94	33,157
LG Seeds	LG2547VT3	230.2	15.2	58.9	90	31,523
LG Seeds	LG2509GT3	228.1	13.0	58.6	99	32,805
NK Brand Seed	N49J-3000GT	227.1	13.3	58.2	99	33,880
Triumph Seeds	1023S	226.8	16.4	58.7	104	32,001
Triumph Seeds	3212X	226.2	12.9	58.8	96	32,291
LG Seeds	LG2544VT3	225.3	14.1	57.3	98	31,460
Dekalb	DKC59-88 (VT3)	221.8	15.6	58.8	89	31,664
Mycogen Seeds	2H523	218.9	13.0	59.1	93	31,230
Seeds 2000	104 G3	217.0	13.6	58.3	101	32,041
Triumph Seeds	9811X	216.4	13.9	60.5	96	33,299
Triumph Seeds	5501S	214.6	12.9	58.6	96	31,737
Dekalb	DKC52-59 (VT3)	214.6	13.2	58.4	92	33,456
Mycogen Seeds	2A551	211.4	13.2	59.2	93	32,299
Seeds 2000	9901 VT3	210.9	13.1	60.3	87	33,299
Golden Harvest	H-7647 3000GT	200.1	13.5	58.2	89	32,413
Average		**227.8**	**14.0**	**58.9**	**94**	**32,659**
[b]$LSD_{0.30}$		16.9				
$LSD_{0.05}$		32.4				

[a]Yields corrected to 15.5% moisture

[b]$LSD_{0.30}$ is most useful for producers using these results to select a variety but some collaborators find $LSD_{0.05}$ useful

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 30'

Site Information

Collaborator:	Brent Adler
Planting Date:	5/10/2010
Harvest Date:	10/21/2010
Previous Crop:	Pinto Beans
Fertilizer:	N-P-K-S-Zn (240-65-40-30-1.5) lbs/ac
Herbicide:	Round-Up Weather Max and Dual
Irrigation:	Sprinkler
Soil Type:	Valent Sand

2010 Irrigated Corn Variety Performance Trial at Yuma

Source	Hybrid	Yield[a]	Moisture	Test Weight	Plant Height	Population	Lodging
		bu/ac	percent	lb/bu	in	plants/ac	percent
Triumph Seeds	1204V	272.3	24.0	55.6	91	33,493	0.9
Mycogen Seeds	2V732	261.2	24.3	55.1	92	32,667	0.6
Triumph Seeds	1157CbRR	255.1	22.7	54.7	91	32,525	0.3
Golden Harvest	H-9173 3000GT	254.0	21.2	53.5	93	31,317	1.2
Mycogen Seeds	2T784	250.0	21.6	54.0	96	28,696	0.3
Producers Hybrids	6944VT3	246.8	20.2	55.2	91	33,009	1.5
Dekalb	DKC55-24 (VT3)	243.9	18.1	58.9	89	31,241	0.4
Golden Harvest	H-8577 3000GT	231.7	18.9	55.1	98	31,391	7.5
Producers Hybrids	7014VT3	230.7	20.9	53.5	90	33,009	2.4
LG Seeds	LG2552VT3	230.4	19.9	54.8	91	32,041	3.1
NK Brand Seed	N68B-3000GT	230.1	22.0	53.9	86	32,163	1.7
Triumph Seeds	1121V	228.8	20.8	59.0	90	33,009	0.9
LG Seeds	LG2544VT3	219.8	21.6	53.6	93	31,578	2.7
Dekalb	DKC62-63 (GENVT3P)	216.1	21.2	56.2	90	30,279	6.6
Dekalb	DKC52-59 (VT3)	215.9	17.6	57.1	90	32,622	2.4
Triumph Seeds	1023S	214.2	20.8	56.0	93	30,270	2.0
Producers Hybrids	6464VT3	210.7	17.6	58.9	97	31,591	1.0
Garst	83E90-3000GT	210.1	22.2	53.7	92	32,097	7.2
Producers Hybrids	6364GT3	206.6	18.8	58.1	92	32,158	0.9
Mycogen Seeds	2C641	205.9	18.6	58.8	88	33,106	2.6
Producers Hybrids	6634VT3	203.3	19.2	57.8	88	31,170	0.0
Seeds 2000	104 G3	196.2	18.9	57.4	93	31,654	0.0
Dekalb	DKC59-88 (VT3)	194.3	21.3	56.2	87	31,882	0.3
Garst	86G35-3000GT	190.4	18.2	59.0	88	32,138	0.6
LG Seeds	LG2547VT3	187.5	18.6	59.0	87	30,418	0.7
Dekalb	DKC54-16 (VT3)	185.0	18.7	57.9	90	32,718	2.8
LG Seeds	LG2525RR	184.2	18.5	58.5	92	32,912	5.5
NK Brand Seed	N49J-3000GT	182.1	16.2	57.9	94	31,363	0.6
Mycogen Seeds	2A551	179.3	18.7	57.2	91	32,525	0.3
Seeds 2000	9901 VT3	165.7	17.0	60.0	86	32,138	0.6
Average		**216.7**	**19.9**	**56.6**	**91**	**31,906**	**1.9**
[b]$LSD_{0.30}$		21.2					
$LSD_{0.05}$		40.5					

[a]Yields corrected to 15.5% moisture

[b]$LSD_{0.30}$ is most useful for producers using these results to select a variety but some collaborators find $LSD_{0.05}$ useful

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 30'

Site Information

Collaborator:	Larry Gardner
Planting Date:	5/11/2010
Harvest Date:	10/12/2010
Previous Crop:	Rye Pasture
Fertilizer:	N-P-K-S-Zn-Fe-Mg (165-47-22-22-1.5-.8-.8) lbs/ac
Herbicide:	Round-Up and Atrazine
Irrigation:	Center Pivot
Soil Type:	Julesburg Loamy Sand

2010 Dryland Corn Variety Performance Trial at Akron

Source	Hybrid	Yield[a]	Moisture	Test Weight	Ear Height	Population
		bu/ac	percent	lb/bu	in	plants/ac
Dekalb	DKC52-59 (VT3)	52.3	15.3	56.6	30	11,326
Dekalb	DKC43-27 (VT3)	50.4	14.2	57.4	27	10,672
Dekalb	DKC42-72 (VT3)	50.1	14.0	56.7	25	11,253
Seeds 2000	104 G3	47.9	14.5	55.9	29	10,309
Golden Harvest	N39Z-3000GT	47.0	13.2	54.2	26	13,649
Dekalb	DKC45-52 (GENVT3P)	45.2	13.3	57.1	28	11,761
Garst	85R08-3000GT	44.6	16.9	57.3	33	10,963
Seeds 2000	9901 VT3	44.0	15.0	58.3	26	7,986
Golden Harvest	H-7122 3000GT	43.1	13.6	56.4	27	9,946
Garst	85V88-3000GT	42.3	14.9	54.6	35	10,454
Golden Harvest	H-8254 3000GT	41.3	16.4	57.0	28	9,293
Golden Harvest	N49J-3000GT	39.4	16.8	57.3	31	9,293
Average		**45.6**	**14.8**	**56.6**	**28**	**10,575**
[b]$LSD_{0.30}$		3.7				
$LSD_{0.05}$		7.2				

[a]Yields corrected to 15.5% moisture

[b]$LSD_{0.30}$ is most useful for producers using these results to select a variety but some collaborators find $LSD_{0.05}$ useful

Experimental Design: randomized complete block design with four replications

Plot size: 5' x 30'

Site Information

Collaborator: Central Great Plains Research Station
Planting Date: 5/18/2010
Harvest Date: 10/14/2010
Previous Crop: Millet
Fertilizer: N-P-K (35-0-0) lbs/ac
Herbicide: Round-Up and Atrazine
Soil Type: Platner Loam

2010 Dryland Corn Variety Performance Trial at Dailey

Source	Hybrid	Yield[a]	Moisture	Test Weight	Ear Height	Population
		bu/ac	percent	lb/bu	in	plants/ac
Dekalb	DKC45-52 (GENVT3P)	115.2	14.7	58.4	36	16,045
Dekalb	DKC52-59 (VT3)	109.0	16.0	57.5	39	15,028
Seeds 2000	9901 VT3	103.2	16.4	60.4	35	14,520
Dekalb	DKC42-72 (VT3)	101.9	14.4	57.9	34	17,279
Seeds 2000	104 G3	101.6	17.3	57.8	39	14,447
NK Brand Seed	N37D-3000GT	101.0	15.2	58.5	36	14,665
Golden Harvest	H-8254 3000GT	100.6	19.3	57.5	38	13,358
Golden Harvest	H-8211 3000GT	100.2	18.3	57.9	41	14,012
Dekalb	DKC43-27 (VT3)	98.4	15.5	58.8	34	15,464
Garst	86J49-3000GT	95.6	16.8	57.6	43	15,028
NK Brand Seed	N31M-GT	93.0	13.3	56.8	37	15,972
Garst	88B37-3000GT	90.4	15.6	57.4	36	15,246
Average		**100.8**	**16.1**	**58.0**	**37**	**15,089**
[b]$LSD_{0.30}$		6.0				
$LSD_{0.05}$		11.6				

[a]Yields corrected to 15.5% moisture

[b]$LSD_{0.30}$ is most useful for producers using these results to select a variety but some collaborators find $LSD_{0.05}$ useful

Experimental Design: randomized complete block design with four replications

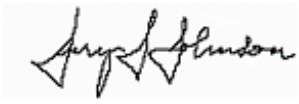
Plot size: 5' x 30'

Site Information

Collaborator: Mark and Neil Lambert
Planting Date: 5/18/2010
Harvest Date: 10/13/2010
Previous Crop: Wheat
Fertilizer: N-P-K (85-47-0) lbs/ac
Herbicide: Round-Up and Atrazine
Soil Type: Haxtun Sandy Loam

Colorado State University

Crops Testing



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