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Department of
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Western Colorado
Research Center

Arkansas Valley
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Extension



MAKING BETTER DECISIONS

2006 Colorado Corn
Variety Performance Trials

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AUTHORS and INFORMATION RESOURCES

Dr. Jerry Johnson - Research Scientist/Extension Specialist/Crop Production, Colorado State University, Department of Soil and Crop Sciences, C11 Plant Science Building, Fort Collins, CO 80523-1170; telephone 970-491-1454; fax 970-491-2758; e-mail jerry.johnson@colostate.edu.

Alicia Davisson - Research Associate/Crops Testing Program, Colorado State University, Department of Soil and Crop Sciences, C03 Plant Science Building, Fort Collins, CO 80523-1170; telephone 970-491-1914; fax 970-491-2758; e-mail cas_csucroptesting@mail.colostate.edu.

Jim Hain - Research Associate/Crops Testing Program, Colorado State University, Department of Soil and Crop Sciences, Central Great Plains Research Station, 40335 County Road GG, Akron, CO 80720; telephone 970-554-0980; fax 970-345-2088.

Dr. Calvin Pearson - Professor/Extension Specialist/New & Alternative Crops, Colorado State University, Western Colorado Research Center, 1910 L Road, Fruita, CO 81521; telephone 970-858-3629; fax 970-858-0461; e-mail calvin.pearson@colostate.edu.

Dr. Abdel Berrada - Superintendent/Research Scientist, Colorado State University, Arkansas Valley Research Center, 27901 Road 21, Rocky Ford, CO 81067; telephone 719-254-6312; fax 719-254-6312; e-mail abdel.berrada@colostate.edu.

2006 COLORADO CORN HYBRID PERFORMANCE TRIALS

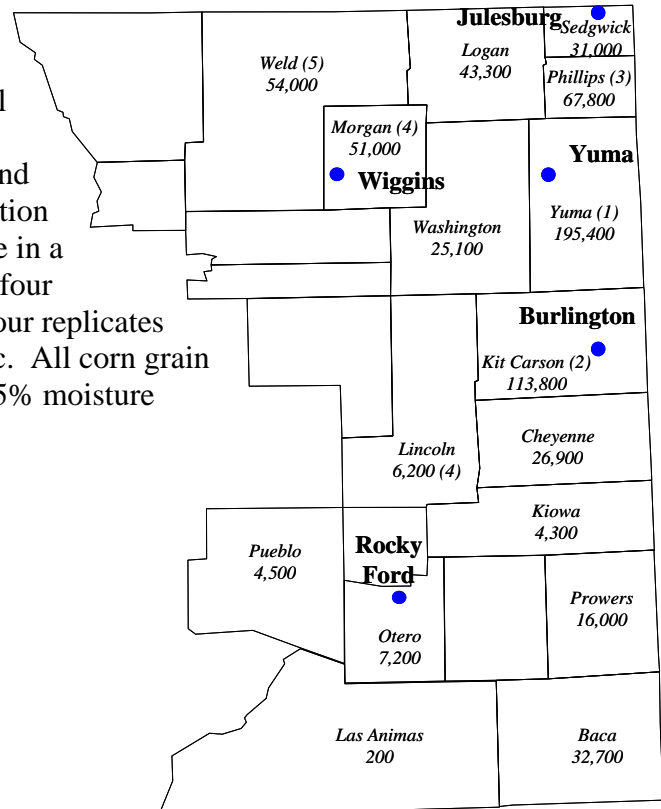
Introduction

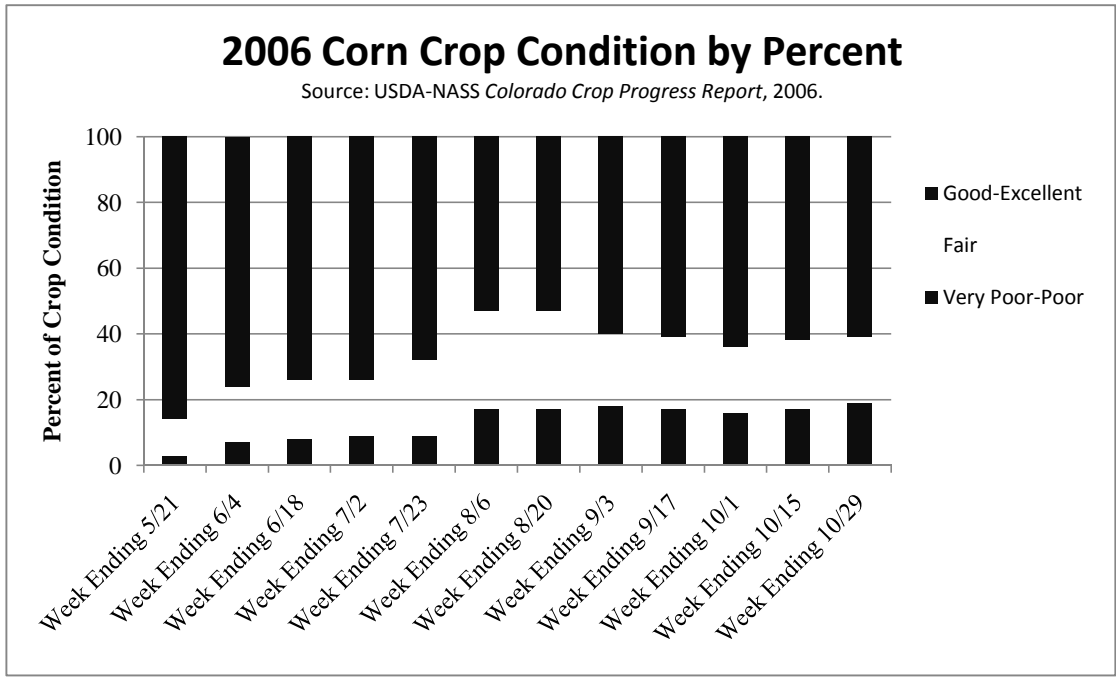
CSU conducts hybrid performance trials to provide unbiased and reliable information to Colorado producers so they can select the best hybrids for their farming conditions. Variable climatic conditions, innovations from biotechnology, acquisitions and mergers of seed companies, and rapid evolution of 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 Western Slope locations. A randomized complete block field design with three replicates was used at all Eastern Colorado irrigated trials and four replicates for the dryland trials. Irrigated trial plots were 36 feet long and planted at 34,000 seeds/ac. The 2006

dryland corn variety trial compared two locations in Colorado and two in Nebraska. All varieties were planted in full row and skip row configurations (blocks) at each location. Dryland trial plots were 36 feet long and a target population of 15,000 plants/ac. All plots were 4 rows wide in a split block (full and skip row) trial design with four replicates. Western Slope trials were planted four replicates and plots were 50 feet long and 35,890 seeds/ac. All corn grain yields are reported in bu/ac and adjusted to 15.5% moisture content.

Five eastern Colorado irrigated corn trial locations in 2006 with 2005 acreage harvested in sixteen important corn producing counties of Colorado.





The chart above shows the corn crop condition by percent every two weeks during the 2006 growing season. There are three categories used for rating the crop condition, very poor to poor, fair and good to excellent.

Summary of insect pressure in eastern Colorado for 2006

- European corn borer: Below average
- Spider mites: Well above average in some areas
- Western bean cutworm: Low to average
- Western corn rootworm adults: Below average

Eastern Colorado Irrigated Grain Corn Performance Data

Table 1. Irrigated corn variety performance at Burlington¹.

Hybrid	Grain		Test	Plant	Density	Lodging	Ear
	Yield	Moisture	Weight	Height			Drop
	bu/ac	%	lb/bu	in	plants/ac	%	%
Fontanelle 8K389 (YG/RR2)	251.9	18.2	56.1	86	30600	0.4	0.4
NK Brand N68-B8 (Bt/LL)	240.0	18.4	55.0	74	30007	1.4	0.4
DEKALB DKC60-18 (RR2/YGPL)	228.9	16.8	57.6	81	30803	2.4	0.3
Dyna-Gro 56P07 (RR/YGCB)	228.0	16.7	57.6	82	29799	2.2	0.0
NK Brand N70-C7 (GT/Bt/LL)	227.4	18.7	55.9	84	29247	3.5	0.0
DEKALB DKC64-81 (YGCB)	226.7	19.3	56.2	81	30596	2.4	1.3
Dyna-Gro 57P93 (RR/YGCB)	224.5	18.6	55.7	80	30124	3.6	1.7
Dyna-Gro 57P46 (RR/YGCB)	222.6	17.7	56.0	86	29208	2.6	1.1
NK Brand N67-D6 (GT/Bt/LL)	221.7	18.2	55.3	78	31050	4.0	1.0
Fontanelle 7951 (YGCB)	221.4	18.4	54.5	90	29245	2.2	0.4
Dyna-Gro 57F37 (YGCB)	221.1	17.7	57.0	87	30153	6.9	2.2
Producers Hybrids 7361 (YGCB)	219.0	19.5	54.6	89	30775	4.9	1.7
LG Seeds LG 2619 (BT/RR)	218.8	17.2	56.9	79	31633	1.7	0.0
DEKALB DKC61-68 (RR2/YGRW)	218.1	17.0	56.6	89	29732	3.5	1.1
Dyna-Gro 57X97 (HXI/LL)	217.2	19.1	54.3	87	30181	10.3	3.8
DEKALB DKC58-19 (RR2)	217.0	15.6	57.1	84	30651	1.4	4.6
NK Brand N72-B2 (Bt/LL)	215.3	17.2	56.2	85	28992	3.8	1.1
Dyna-Gro 57P69 (YGCB/RR)	213.8	18.0	55.5	88	30907	5.7	1.0
NK Brand NX6965 (GT)	213.0	16.7	58.1	87	30907	2.0	1.7
DEKALB DKC54-46 (RR2/YGPL)	211.1	14.5	58.9	88	30285	1.4	0.0
NK Brand NX5995 (Bt/LL)	211.1	17.2	53.7	84	29837	2.2	1.1
Producers Hybrids 7373 (YGCB/RR)	210.9	20.6	53.7	88	30907	5.0	1.3
DEKALB DKC52-40 (RR2/YGPL)	209.2	14.5	57.9	87	30256	0.7	0.0
ASGROW RX655 (RR2)	208.1	16.3	59.4	80	30077	2.1	3.2
Producers Hybrids 7073 (YGCB)	207.4	16.2	55.6	82	29955	3.5	1.4
LG Seeds LG 2600 (BT)	204.8	16.7	54.7	82	30285	5.4	3.1
Dyna-Gro 57F06 (YGCB)	203.3	16.6	55.9	90	30803	1.0	2.7
Mycogen 2P722 (HXI)	201.2	17.1	55.5	81	28550	1.1	1.1
Fontanelle 6N523 (YGCB/RR)	199.1	15.4	59.0	83	29134	2.0	1.2
Mycogen 2K717 (HXI)	197.4	20.6	54.0	81	29486	2.5	0.7
Dyna-Gro 56P22 (RR/YGCB)	195.5	15.5	58.5	80	30627	1.0	1.4
Mycogen 2T780 (HXI)	192.1	19.0	55.1	86	30982	4.4	1.4
Triumph 1416 (BT/YGCB)	190.1	18.0	55.1	87	29467	1.8	1.1
NK Brand N76-D3 (Bt/LL)	184.7	20.7	53.6	77	30492	3.5	0.7
Average	213.9	17.6	56.1	84	30169	3.0	1.3
LSD _(0.30)	19.0						

¹Trial conducted on the Don Sircy farm; seeded 4/29 and harvested 11/14.

*Excellent growing conditions; dry soil at planting time; poor emergence until water applied 2 weeks later; two dates of emergence.

Site Information

Plot Size: 5' x 28' with 30" row spacing; conventional till
 Experimental Design: randomized complete block, 3 replications
 Seeding Rate: approximately 34,000 seeds/acre
 Previous Crop: pinto beans
 Irrigation: sprinkler
 Growing Degree Days: 2834 (2006 GDD); 2673 (Long Term Ave GDD)
 Soil Type: Weld silt loam
 Fertilization: 200 lbs N acre⁻¹; 20 lbs P₂O₅ acre⁻¹; 10 lbs K₂O acre⁻¹; 2 lbs Zn acre⁻¹
 Herbicide: Marksman

Table 2. 2-yr average irrigated corn variety performance at Burlington in 2005-06.

Hybrid	Grain		Test
	Yield	Moisture	Weight
	bu/ac	%	lb/bu
Dyna-Gro 57P93 (RR/YGCB)	213	20.7	55.8
Dyna-Gro 57P46 (RR/YGCB)	211	18.8	55.9
Fontanelle 7951 (YGCB)	210	18.5	55.2
Dyna-Gro 57P69 (YGCB/RR)	201	17.9	55.8
Triumph 1416 (BT/YGCB)	198	17.4	55.6
Average	206	18.7	55.7

Table 3. Irrigated corn variety performance at Julesburg¹.

Hybrid	Grain		Test	Plant		Ear	
	Yield	Moisture	Weight	Height	Density	Lodging	Drop
	bu/ac	%	lb/bu	in	plants/ac	%	%
DEKALB DKC60-18 (RR2/YGPL)	223.7	15.7	57.8	78	32131	0.0	0.0
DEKALB DKC61-68 (RR2/YGRW)	223.6	15.7	57.6	82	32552	2.1	0.3
Fontanelle 8K389 (YG/RR2)	218.8	17.6	56.3	90	31458	3.3	0.6
ASGROW RX655 (RR2)	216.6	16.4	57.8	82	31245	0.9	0.3
Mycogen 2C727 (HXI)	213.9	16.3	55.5	80	31164	0.0	0.0
Dyna-Gro 57F06 (YGCB)	212.9	15.5	55.1	85	31757	0.6	0.3
Dyna-Gro 57P46 (RR/YGCB)	211.8	16.9	56.1	85	30108	0.3	1.0
Crows 7532Z (BT/RR)	210.4	16.2	57.2	87	32562	0.0	0.0
NK Brand N67-D6 (GT/Bt/LL)	209.2	16.4	56.8	83	31865	0.4	2.1
Fontanelle 7951 (YGCB)	208.2	18.3	55.1	84	32125	0.0	0.0
DEKALB DKC64-81 (YGCB)	206.9	17.9	57.7	82	32774	0.3	0.6
LG Seeds LG 2545 (BT)	206.0	15.2	55.9	76	32131	4.7	1.5
Fontanelle 6N523 (YGCB/RR)	204.4	14.4	58.7	84	30570	2.3	0.0
NK Brand NX5995 (Bt/LL)	204.2	16.0	53.7	82	29117	0.7	0.7
Mycogen 2P722 (HXI)	203.1	16.1	56.3	81	31549	1.2	0.3
DEKALB DKC54-46 (RR2/YGPL)	203.0	14.3	58.4	85	31892	0.9	0.3
NK Brand N65-C5 (Bt/LL)	203.0	15.1	56.9	81	31195	1.2	0.6
Dyna-Gro 56P22 (RR/YGCB)	201.1	14.7	57.7	82	31237	0.3	0.7
Dyna-Gro 57P69 (RR/YGCB)	200.6	16.6	55.8	85	30164	0.9	0.6
DEKALB DKC52-40 (RR2/YGPL)	199.1	13.1	56.8	78	31490	0.0	0.0
Dyna-Gro 57F37 (YGCB)	198.6	17.3	57.2	85	32319	2.0	0.6
Dyna-Gro 55B65 (RR/YGPL)	195.9	14.5	58.2	86	31280	0.3	0.0
Dyna-Gro 56X95 (HXI/LL)	193.3	16.9	55.9	83	32506	6.6	2.6
Mycogen 2K717 (HXI)	192.4	16.5	56.1	85	31495	0.0	0.0
Trisler T-2850 (RR2CB)	191.6	15.4	57.3	79	30832	0.6	0.0
Trisler T-2375 (RR2CB)	191.4	14.2	58.1	80	29484	0.6	0.0
DEKALB DKC58-19 (RR2)	191.4	15.7	56.9	78	30706	1.5	0.6
Trisler T-2390 (HX)	190.6	13.8	56.7	83	30724	0.0	0.0
Dyna-Gro 56P07 (RR/YGCB)	189.9	15.4	57.1	78	29273	0.3	0.3
Crows 3935T (RR/YGPL)	189.4	14.6	57.1	82	33156	0.6	0.0
Average	203.5	15.7	56.8	82	31362	1.1	0.5
LSD _(0.30)	12.4						

¹Trial conducted on the Gene Bauerle farm; seeded 5/4 and harvested 11/11.

*Below normal growing season rainfall; plentiful irrigation water available; excellent growing conditions.

Site Information

Plot Size: 5' x 31' with 30" row spacing

Experimental Design: randomized complete block; 3 replications

Seeding Rate: approximately 34,000 seeds/acre

Previous Crop: corn

Irrigation: sprinkler

Growing Degree Days: 2914 (2006 GDD); 2752 (Long Term Ave GDD)

Soil Type: Keith, Goshen, Kuma, silt loam

Fertilization: 150 lbs N acre⁻¹; 50 lbs P₂O₅ acre⁻¹; 33 lbs Zn acre⁻¹; 5 lbs S acre⁻¹

Herbicide: Define, Balance Pro, Atrazine

Insecticide: Pencap M

Table 4. 2-yr average irrigated corn variety performance at Julesburg in 2005-06.

Hybrid	Grain		Test
	Yield	Moisture	Weight
	bu/ac	%	lb/bu
LG Seeds LG 2545 (BT)	186	14.9	55.7
Fontanelle 7951 (YGCB)	182	16.7	55.4
Average	184	15.8	55.5

Table 5. Irrigated corn variety performance at Rocky Ford¹.

Hybrid	Grain		Test	Plant	Density	Lodging	Silking ²
	Yield	Moisture	Weight	Height			
	bu/ac	%	lb/bu	in	plants/ac	%	date
Triumph 1536CbRR (YGCB/RR)	241.3	17.4	55.5	88	28949	5.7	196
Mycogen 2T828 (YGCB/LG/RW/RR)	235.7	18.3	55.7	91	29857	4.9	197
Producers Hybrids 7373 (YGCB/BT/RR)	235.2	17.4	56.0	92	28768	2.9	196
Producers Hybrids 7361 (YGCB/BT)	232.4	18.0	55.6	90	28949	1.7	194
Crows 7532Z (BT/RR)	229.7	16.5	57.0	88	29040	0.9	195
NK Brand N68-B8 (Bt/LL)	228.3	15.7	56.2	84	28314	7.9	195
Mycogen 2T780 (HXI)	227.6	16.2	55.7	93	27951	4.1	197
NK Brand N76-D3 (Bt/LL)	219.1	17.5	56.0	87	27225	4.1	198
Dyna-Gro 57P93 (YGCB/RR)	217.4	17.0	56.1	88	25410	1.3	198
NK Brand N72-B2 (Bt/LL)	214.3	16.3	56.1	90	28496	2.7	197
Triumph 1756CbRR (YGCB/RR)	213.2	18.1	54.0	92	28586	13.9	199
Producers Hybrids 7073 (YGCB/BT)	211.9	14.6	56.5	81	26045	0.4	194
NK Brand N67-D6 (GT/Bt/LL)	211.5	16.2	56.6	85	28859	0.6	192
NK Brand N70-C7 (GT/Bt/LL)	204.5	17.0	55.9	87	27497	5.4	193
Average	223.0	16.9	55.9	88	28139	4.0	196
LSD _(0.30)	16.5						

¹Trial conducted at the Arkansas Valley Research Center; seeded 4/27 and harvested 11/1 and 11/2.

²Julian date, 70% silking.

Site Information

Plot Size: 5' x 32' with 30" row spacing

Experimental Design: randomized complete block, 3 replications

Seeding Rate: 32,000 to 33,000 seeds/acre

Previous Crop: onions

Irrigation: furrow

Growing Degree Days: 2948 (2006 GDD); 2837 (Long Term Ave GDD)

Soil Type: Rocky Ford silty clay (fine-silty, mixed, calcareous, mesic Ustic Torriorthents)

Fertilization: 200 lbs of 11-52-0 acre⁻¹; 300 lbs Urea (46-0-0) acre⁻¹

Herbicide: Dual II Magnum at 1.43 ai/acre plus glyphosate at 1.0 lb ai/acre in 18 gal/a

Bactericide: none other than as seed treatment

Insecticide: none other than as seed treatment

Table 6. 2-yr irrigated corn variety performance at Rocky Ford in 2005-06.

Hybrid	Grain		Test
	Yield	Moisture	Weight
	bu/ac	%	lb/bu
Triumph 1536CbRR (YGCB/RR)	222	19.7	56.5
Producers Hybrids 7361 (YGCB/BT)	221	18.8	56.2
Producers Hybrids 7373 (YGCB/BT/RR)	217	18.3	56.7
Dyna-Gro 57P93 (YGCB/RR)	216	17.9	56.6
Mycogen 2T780 (HXI)	209	18.4	56.2
Average	217	18.6	56.4

Table 7. Irrigated corn variety performance at Wiggins¹.

Hybrid	Grain		Test	Plant	Density	Lodging
	Yield	Moisture	Weight	Height		
	bu/ac	%	lb/bu	in	plants/ac	%
DEKALB DKC54-46 (RR2/YGPL)	221.4	14.6	57.8	101	32683	93.6
Mycogen 2P722 (HXI)	219.1	15.6	55.6	101	32868	81.1
NK Brand N67-D6 (GT/Bt/LL)	218.4	16.8	56.1	103	32693	86.5
Dyna-Gro 57P46 (RR/YGCB)	218.1	17.6	55.2	105	33624	86.4
Dyna-Gro 56P22 (RR/YGCB)	217.4	15.7	56.2	102	31944	84.0
Dyna-Gro 56X95 (HXI/LL)	212.4	15.6	56.8	103	32600	91.1
DEKALB DKC61-68 (RR2/YGRW)	211.5	14.5	56.3	97	33487	82.4
Dyna-Gro 57F37 (YGCB)	211.3	17.3	55.7	107	31465	84.4
DEKALB DKC60-18 (RR2/YGPL)	210.3	15.2	56.6	96	32881	55.4
DEKALB DKC58-19 (RR2)	209.6	14.8	56.9	96	33818	83.0
NK Brand NX5995 (Bt/LL)	209.0	15.8	53.4	105	31738	90.7
Dyna-Gro 56P07 (RR/YGCB)	198.3	14.8	57.3	96	32258	50.2
Dyna-Gro 55P86 (RR/YGCB)	194.0	15.6	56.7	101	30492	77.5
Dyna-Gro 57P69 (YGCB/RR)	193.3	16.0	55.4	103	31476	90.2
Mycogen 2J525	191.0	14.7	58.0	100	33504	78.9
Dyna-Gro 57F06 (YGCB)	186.7	14.0	55.2	102	32082	79.9
DEKALB DKC52-40 (RR2/YGPL)	183.7	13.5	56.9	96	31850	37.4
LG Seeds LG 2517 (BT)	182.3	14.8	55.0	92	31891	70.2
ASGROW RX655 (RR2)	180.0	15.2	58.1	101	32304	39.2
NK Brand N41-P1 (GT/Bt/LL)	179.5	15.0	56.5	94	33137	75.6
Triumph TRX6221CbRR (YGCB/RR)	155.8	14.1	56.1	98	32787	83.3
Dyna-Gro 55B02 (RR/YGPL)	150.0	12.8	55.6	97	32131	63.9
Dyna-Gro 55B65 (RR/YGPL)	133.1	13.6	55.5	104	31895	72.4
Average	195.0	15.1	56.2	100	32418	75.5
LSD _(0.30)	12.6					

¹Trial conducted on the Rod Graves farm; seeded 5/3 and harvested 11/15.

*Excellent growing conditions. Plots had the potential to be one of the best at this location. Sever wind storm Nov. 14 (one day before harvest) caused severe lodging.

Site Information

Plot Size: 5' x 31' with 30" row spacing
 Experimental Design: randomized complete block, 3 replications
 Seeding Rate: approximately 34,000 seeds/acre
 Previous Crop: corn
 Irrigation: sprinkler

Growing Degree Days: 2706 (2006 GDD); 2667 (Long Term Ave GDD)
 Soil Type: Bijou loamy sand
 Fertilization: 220 lbs N acre⁻¹; 25 lbs P₂O₅ acre⁻¹; 55 lbs K₂O acre⁻¹; 1 lbs Zn acre⁻¹
 Herbicide: Lumax

Table 8. 2-yr irrigated corn variety performance at Wiggins in 2005-06.

Hybrid	Grain		Test
	Yield	Moisture	Weight
	bu/ac	%	lb/bu
Mycogen 2J525	158	14.9	58.0

Table 9. Irrigated corn variety performance at Yuma¹.

Hybrid	Grain		Test	Plant	Density	Lodging	Ear
	Yield	Moisture	Weight	Height			Drop
	bu/ac	%	lb/bu	in	plants/ac	%	%
Producers Hybrids 7373 (YGCB/RR)	266.2	21.2	54.5	97	32225	0.0	0.0
Dyna-Gro 57P46 (RR/YGCB)	265.1	19.1	53.9	97	32931	0.3	0.3
LG Seeds LG 2619 (BT/RR)	262.2	21.2	54.3	100	33162	0.3	0.0
Trisler T-5257 (PLRR2)	260.4	20.0	54.9	99	33255	0.0	0.0
Fontanelle 7951 (YGCB)	258.3	20.9	54.1	95	33023	0.3	0.0
NK Brand N76-D3 (Bt/LL)	250.9	22.0	54.6	97	33068	0.0	0.0
Dyna-Gro 57X97 (HXI/LL)	250.2	20.2	55.1	98	31251	0.7	0.0
Triumph 1416 (BT/YGCB)	249.6	18.5	55.2	99	33537	0.0	0.0
Mycogen 2P722 (HXI)	248.8	17.8	55.6	90	32680	0.0	0.0
NK Brand N70-C7 (GT/Bt/LL)	248.8	19.1	55.8	97	32861	1.1	0.3
NK Brand N67-D6 (GT/Bt/LL)	247.5	18.4	57.0	92	33537	0.0	0.0
Mycogen 2T780 (HXI)	246.9	20.5	54.8	95	33068	0.0	0.0
Grand Valley 23B08 (RR/BT)	245.4	21.1	55.7	95	32486	0.3	0.0
Dyna-Gro 57P69 (YGCB/RR)	243.9	18.7	56.1	96	32338	0.0	0.0
LG Seeds LG 2600 (BT)	243.4	19.0	55.1	94	33443	0.0	0.0
DEKALB DKC64-81 (YGCB)	242.7	20.0	57.5	88	32974	0.0	0.0
Trisler T-5244 (RR2CB)	239.3	19.0	56.1	95	32506	0.0	0.0
Trisler T-5175 (RR2CB)	238.7	17.2	56.5	100	32584	0.0	0.0
Producers Hybrids 7073 (YGCB)	238.6	17.7	55.7	92	31660	0.0	0.0
Producers Hybrids 7361 (YGCB)	233.7	20.1	55.3	99	33537	0.8	0.3
NK Brand N65-C5 (Bt/LL)	232.8	18.1	57.2	87	31711	0.0	0.0
NK Brand N68-B8 (Bt/LL)	232.3	19.1	55.6	81	32255	0.0	0.0
LG Seeds LG 2545 (BT)	231.8	17.9	55.1	90	32565	0.0	0.0
DEKALB DKC52-40 (RR2/YGPL)	231.4	14.7	58.5	92	33053	0.3	0.0
DEKALB DKC60-18 (RR2/YGPL)	230.4	17.2	57.3	89	31292	0.3	0.0
Fontanelle 8K389 (YG/RR2)	230.4	20.0	56.2	93	31776	0.0	0.0
DEKALB DKC58-19 (RR2)	230.1	15.3	57.7	90	32449	0.3	0.0
Dyna-Gro 57F37 (YGCB)	230.0	18.2	55.8	95	31893	0.6	0.3
Grand Valley 23P03 (RR/BT/CRW)	229.8	18.4	57.0	96	33068	0.9	0.0
DEKALB DKC61-68 (RR2/YGRW)	229.6	15.6	57.8	96	33443	1.7	0.0
NK Brand NX5995 (Bt/LL)	228.1	16.8	54.4	92	31561	1.2	0.3
Dyna-Gro 57P93 (RR/YGCB)	227.9	19.9	55.0	94	32038	0.0	0.0
NK Brand N72-B2 (Bt/LL)	227.4	19.4	55.2	96	34748	0.0	0.0
Dyna-Gro 56P07 (RR/YGCB)	227.2	17.0	57.4	95	32600	0.0	0.0
Grand Valley 22R83 (RR)	226.5	17.3	59.6	87	32866	0.3	0.3
Dyna-Gro 56X95 (HXI/LL)	226.5	18.5	56.9	97	32038	0.0	0.0
ASGROW RX655 (RR2)	226.3	16.4	59.9	92	32787	0.0	0.0
Dyna-Gro 57F06 (YGCB)	225.0	17.6	55.3	96	32672	0.0	0.0
Dyna-Gro 56P22 (RR/YGCB)	223.8	16.1	58.5	93	32644	2.0	0.0
DEKALB DKC54-46 (RR2/YGPL)	218.9	15.1	58.5	95	33016	0.0	0.0
Trisler T-2850 (RR2CB)	218.3	16.8	58.7	89	32364	0.9	0.0
Dyna-Gro 55B65 (RR/YGPL)	207.5	15.8	58.8	91	32110	0.0	0.0
Mycogen 2K717 (HXI)	206.1	20.0	56.1	98	32595	0.7	0.3
Fontanelle 6N523 (YGCB/RR)	193.8	16.3	58.8	88	32469	0.6	0.3
Average	235.7	18.4	56.3	94	32639	0.3	0.1
LSD _(0.30)	14.2						

¹Trial conducted on the Larry Gardner farm; seeded 5/12 and harvested 11/3.

*Excellent growing conditions.

Site InformationPlot Size: 5' x 31' with 30" row spacing; strip tilled
Experimental Design: randomized complete block, 3 replications

Seeding Rate: approximately 34,000 seeds/acre

Previous Crop: potatoes

Irrigation: sprinkler

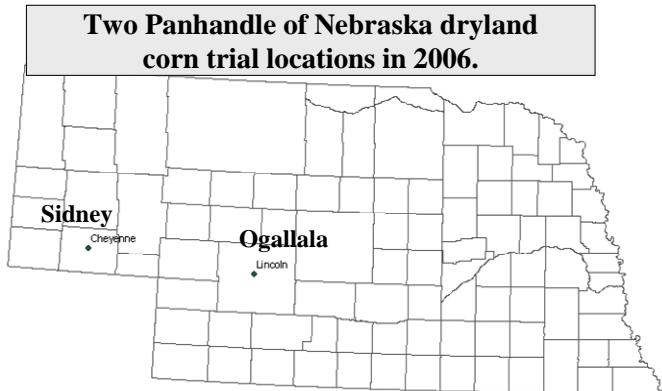
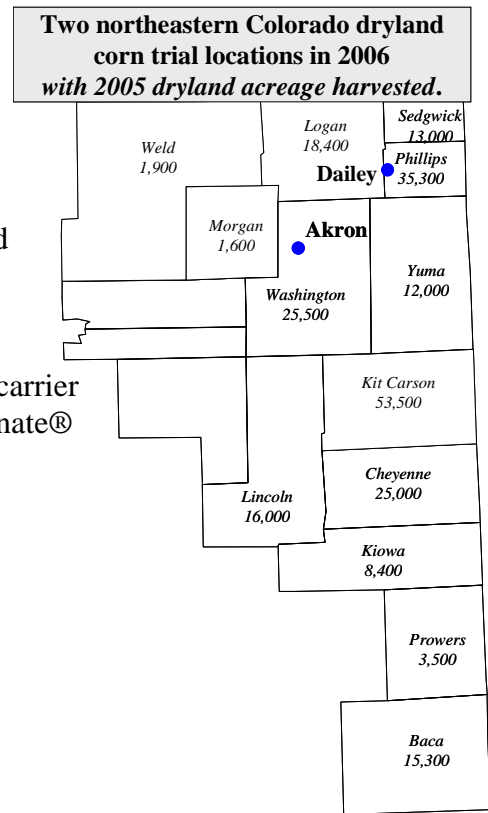
Growing Degree Days: 2941 (2006 GDD); 2615 (Long Term Ave GDD)

Table 10. 2-yr average irrigated corn variety performance at Yuma in 2005-06.

Hybrid	Yield bu/ac	Grain Test	
		Moisture %	Weight lb/bu
LG Seeds LG 2600 (BT)	241	18.9	55.0
Triumph 1416 (BT/YGCB)	238	19.8	55.6
Trisler T-5244 (RR2CB)	226	19.3	55.9
Grand Valley 23P03 (RR/BT/CRW)	216	18.9	56.7
Dyna-Gro 57P93 (RR/YGCB)	212	21.9	55.0
Average	227	19.8	55.6

Eastern Colorado Dryland Grain Corn Performance Data

The 2006 dryland corn variety trial compared two locations in Colorado and two in Nebraska. All varieties were planted in full row and skip row configurations (blocks) at each location. Dryland trial plots were 36 feet long and a target population of 15,000 plants/ac. All plots were 4 rows wide in a split block (full and skip row) trial design with four replicates. The dryland corn trial also included three rates of a seed treatment, Myconate®¹. In the following tables, Myc 1x is the application of the recommended level of Myconate®, Myc 2x is applying two times the recommended level and Myc carrier is a seed coating carrier for Myconate® without any Myconate® being applied.



¹See Myconate® description on page 13.

Table 11. Dryland corn conventional 4-row variety performance at Akron¹ in 2006.

Hybrid	Grain		Test		Lodging	Ear Drop
	Yield	Moisture	Weight	Density		
	bu/ac	%	lb/bu	plants/ac	%	%
DKC52-40 (TMI AZ06)	36.6	12.6	50.4	17274	4.2	0.0
DKC52-40 (Myc 1x)	34.9	18.0	58.3	18196	4.7	0.4
DEKALB DKC48-53 (RR2/YGCB)	34.5	14.5	58.5	17223	4.2	1.2
DEKALB DKC38-33 (RR2/YGCB)	28.4	15.7	57.8	18478	7.3	0.0
DEKALB DKC52-40 (RR2/YGPL)	28.0	17.3	58.5	18258	3.5	0.8
Triumph TRX6221CbRR (YGCB/RR)	27.5	16.5	57.0	19391	2.9	0.0
DKC52-40 (Myc 2x)	27.3	14.2	58.4	19672	3.8	0.0
Trisler T-2850 (RR2CB)	24.6	18.8	58.9	19461	1.5	0.0
HPALC 5	23.5	14.7	0.0	14823	2.9	0.0
DKC52-40 (Myc carrier)	22.8	18.1	57.5	18337	0.4	0.4
Average	28.8	16.0	51.5	18111	3.5	0.3
LSD _(0.30)	8.2	3.1	2.7	1218	3.0	0.7

¹Trial conducted at the Central Great Plains Field Station; seeded 5/15 and harvested 11/6.

*Dry top soil at planting. Drought and high temperatures during June and July.

Site Information

Plot Size: 10' x 31 with 30 inch row spacing; no-till
 Experimental Design: randomized complete block, 4 replications
 Previous Crop: wheat
 Planted: 18,500 seeds/ac intending to thin to 15,000 plants/ac but plots were not thinned.

Growing Degree Days: 2720 (2006 GDD); 2493 (Long Term Ave GDD)
 Precipitation: May 4 - September 30, 11.69 inches, 84 % of normal
 Soil Type: Rago silt loam
 Fertilization: none
 Herbicide: Round-up

Table 12. Dryland corn skip row block variety performance at Akron¹ in 2006.

Hybrid	Grain		Test		Lodging	Ear Drop
	Yield	Moisture	Weight	Density		
	bu/ac	%	lb/bu	plants/ac	%	%
DKC52-40 (Myc 1x)	30.9	15.2	58.9	17459	0.2	0.0
DKC52-40 (TMI AZ06)	30.9	13.9	59.1	17213	1.7	0.0
DKC52-40 (Myc carrier)	28.8	14.8	58.6	18021	0.4	0.0
DEKALB DKC52-40 (RR2/YGPL)	28.4	16.2	58.8	17775	0.4	0.2
DKC52-40 (Myc 2x)	25.3	14.1	58.6	17521	0.8	0.0
DEKALB DKC48-53 (RR2/YGCB)	24.3	14.2	57.3	17389	0.2	0.0
Triumph TRX6221CbRR (YGCB/RR)	24.2	14.4	57.4	17424	0.0	0.0
DEKALB DKC38-33 (RR2/YGCB)	21.2	15.2	58.0	16405	1.5	0.0
HPALC 5	20.1	15.0	58.9	12850	0.0	0.0
Trisler T-2850 (RR2CB)	17.6	22.1	58.4	16230	0.0	0.0
Average	25.2	15.5	58.4	16829	0.5	0.0
LSD _(0.30)	5.4	1.1	0.4	603	0.4	0.1

¹Trial conducted at the Central Great Plains Field Station; seeded 5/15 and harvested 11/6.

*Dry top soil at planting. Drought and high temperatures during June and July.

Site Information

Plot Size: 10' x 31 with 30 inch row spacing; no-till
 Experimental Design: randomized complete block, 4 replications
 Previous Crop: wheat
 Planted: 18,500 seeds/ac intending to thin to 15,000 plants/ac but plots were not thinned

Growing Degree Days: 2720 (2006 GDD); 2493 (Long Term Ave GDD)
 Precipitation: May 4 - September 30, 11.69 inches, 84 % of normal
 Soil Type: Rago silt loam
 Fertilization: none
 Herbicide: Round-up

Table 13. Dryland corn conventional 4-row variety performance at Dailey¹ in 2006.

Hybrid	Grain		Test	Cob		Ear	
	Yield	Moisture	Weight	Height	Density	Lodging	Drop
	bu/ac	%	lb/bu	in	plants/ac	%	%
DKC52-40 (Myc 2x)	70.7	13.3	56.6	25	19532	0.0	0.4
DKC52-40 (Myc carrier)	69.1	13.7	56.8	24	18834	0.0	0.0
DEKALB DKC48-53 (RR2/YGCB)	67.6	13.4	56.2	27	19261	0.0	0.4
DEKALB DKC38-33 (RR2/YGCB)	65.9	13.7	57.7	27	19269	0.0	0.0
DKC52-40 (TMI AZ06)	65.5	13.5	56.6	26	20094	0.0	0.0
DKC52-40 (Myc 1x)	62.7	13.8	56.8	24	19532	0.0	0.0
DEKALB DKC52-40 (RR2/YGPL)	61.1	13.5	56.2	25	19251	0.8	0.7
Triumph TRX6221CbRR (YGCB/RR)	57.9	13.3	55.2	26	18337	0.0	0.0
HPALC 5	41.6	14.0	56.9	25	14697	0.0	1.0
Trisler T-2850 (RR2CB)	41.1	15.5	56.3	24	17124	0.0	0.4
Average	60.3	13.8	56.5	25	18593	0.1	0.3
LSD _(0.30)	8.9	0.5	0.6	2	875	0.4	0.5

¹Trial conducted on the Mark and Neil Lambert farm; seeded 5/22 and harvested 11/2.

*Dry soil at planting time; hail in mid-June severely stripped leaves, but got needed moisture (+ 2 in).

Site Information

Plot Size: 10' x 31 with 30 inch row spacing; no-till
 Experimental Design: randomized complete block, 4 replications
 Previous Crop: wheat
 Planted: 18,500 seeds/ac intending to thin to 15,000 plants/ac but plots were not thinned

Growing Degree Days: 2758 (2006 GDD); 2545 (Long Term Ave GDD)
 Precipitation: May 4 - Sept. 30 10.9 inches, 90% of normal
 Soil Type: Haxtun sandy loam
 Fertilization: 65 lbs N acre⁻¹; 35 lbs P₂O₅ acre⁻¹; 1 ton manure
 Herbicide: Steadfast, Clarity

Table 14. Dryland corn skip row block variety performance at Dailey¹ in 2006.

Hybrid	Grain		Test	Cob		Ear	
	Yield	Moisture	Weight	Height	Density	Lodging	Drop
	bu/ac	%	lb/bu	in	plants/ac	%	%
DKC52-40 (TMI AZ06)	57.7	13.1	56.6	22	17810	0.0	0.0
DEKALB DKC48-53 (RR2/YGCB)	53.1	13.3	55.8	25	18091	0.2	0.4
DEKALB DKC52-40 (RR2/YGPL)	53.1	13.2	55.8	25	17565	0.0	0.0
DKC52-40 (Myc 2x)	52.6	13.2	55.8	22	17178	0.0	0.0
DKC52-40 (Myc 1x)	50.8	13.4	55.9	23	17740	0.0	1.0
DEKALB DKC38-33 (RR2/YGCB)	49.9	13.5	57.6	23	17881	0.0	0.4
DKC52-40 (Myc carrier)	40.8	13.5	55.5	23	17740	0.0	0.0
Triumph TRX6221CbRR (YGCB/RR)	40.6	13.0	53.7	24	17565	0.0	0.0
HPALC 5	33.3	13.7	55.7	25	12787	0.0	1.3
Trisler T-2850 (RR2CB)	28.5	18.0	54.9	22	17038	0.0	0.4
Average	46.0	13.8	55.7	23	17139	0.0	0.4
LSD _(0.30)	7.6	0.6	0.5	1	431	0.1	0.4

¹Trial conducted on the Mark and Neil Lambert farm; seeded 5/22 and harvested 11/2.

*Dry soil at planting time; hail in mid-June severely stripped leaves, but got needed moisture (+ 2 in). Grass infestation in skip rows aided by late season rains.

Site Information

Plot Size: 10' x 31 with 30 inch row spacing; no-till
 Experimental Design: randomized complete block, 4 replications
 Previous Crop: wheat
 Planted: 18,500 seeds/ac intending to thin to 15,000 plants/ac but plots were not thinned

Growing Degree Days: 2758 (2006 GDD); 2545 (Long Term Ave GDD)
 Precipitation: May 4 - Sept. 30 10.9 inches, 90% of normal
 Soil Type: Haxtun sandy loam
 Fertilization: 65 lbs N acre⁻¹; 35 lbs P₂O₅ acre⁻¹; 1 ton manure
 Herbicide: Steadfast, Clarity

Table 15. Dryland corn conventional 4-row variety performance at Ogallala¹ in 2006.

Hybrid	Grain		Test	Density	Dropped	Broken
	Yield	Moisture	Weight		Ears	Stalks
	bu/ac	%	lb/bu	plants/ac	%	%
DEKALB DKC38-33 (RR2/YGCB)	5.3	8.8	62.4	14074	2.3	20.7
DKC52-40 (TMI AZ06)	2.9	6.4	30.8	14106	0.6	5.8
DEKALB DKC52-40 (RR2/YGPL)	2.8	5.6	30.8	13740	0.6	16.0
HPALC 5	2.3	4.4	47.8	11070	4.0	11.5
Triumph TRX6221CbRR (YGCB/RR)	2.1	4.0	31.6	13994	1.8	50.2
Trisler T-2850 (RR2CB)	1.5	1.6	16.2	12974	0.0	8.2
DKC52-40 (Myc 2x)	1.2	4.9	31.5	13476	0.0	0.7
DKC52-40 (Myc carrier)	1.1	0.0	0.0	13864	0.0	10.7
DEKALB DKC48-53 (RR2/YGCB)	1.0	3.1	15.5	14008	1.2	13.2
DKC52-40 (Myc 1x)	0.6	0.7	0.0	13942	0.6	15.5
Average	2.1	3.9	26.7	13525	1.1	15.2
LSD _(0.30)	1.4	2	21.0	510	1.9	14.2

¹Trial conducted on the Darrol Eichner farm; seeded 5/11 and harvested 10/13. Investigator: Bob Klein.

*Mid-July it was very hot and windy, and most dryland corn was severely damaged. The reduced stand of HPALC 5 was due to poor emergence but that may have contributed to higher yield.

**No moisture and test weights there was not enough grain in a plot to accurately measure. Obviously the yields are near zero. The conventional 4-row plots were severely drought stricken and unable to make and fill ears. Compare these yields with the skip row plots that yielded ~20 bu/ac in the same drought conditions.

Site Information

Plot Size: 10' x 31 with 30 inch row spacing; no-till
 Experimental Design: randomized complete block, 4 replications
 Previous Crop: wheat

Planting rate: planted at 15,000 seeds/ac
 Soil Type: Vetal loamy fine sand, pH 4.86 OM 1.02%
 Fertilization: 60 lb N as 28-0 pre-emergence
 Herbicide: 1.75 qt Lumax May 11
 Insecticide: Lorsban

Table 16. Dryland corn skip row block variety performance at Ogallala¹ in 2006.

Hybrid	Grain		Test	Density	Dropped	Broken
	Yield	Moisture	Weight		Ears	Stalks
	bu/ac	%	lb/bu	plants/ac	%	%
HPALC 5	25.4	13.1	60.3	10553	2.0	2.4
Trisler T-2850 (RR2CB)	22.7	13.0	60.4	12570	0.0	4.6
DEKALB DKC38-33 (RR2/YGCB)	21.0	14.1	59.6	13425	0.6	23.1
DKC52-40 (Myc carrier)	21.0	14.3	59.3	13092	0.6	4.2
DEKALB DKC48-53 (RR2/YGCB)	20.6	13.8	59.8	13538	0.0	27.6
DEKALB DKC52-40 (RR2/YGPL)	20.2	14.1	59.5	12943	0.3	2.2
DKC52-40 (Myc 1x)	19.5	13.0	60.3	13212	0.6	0.3
DKC52-40 (TMI AZ06)	18.5	13.5	59.9	13196	0.6	0.9
DKC52-40 (Myc 2x)	13.4	14.9	59.2	12767	1.3	2.6
Triumph TRX6221CbRR (YGCB/RR)	11.9	13.7	59.8	13481	0.9	4.1
Average	19.4	13.7	59.8	12878	0.7	7.2
LSD _(0.30)	4.5	0.9	0.7	567	0.6	3.4

¹Trial conducted on the Darrol Eichner farm; seeded 5/11 and harvested 10/13. Investigator: Bob Klein.

*Mid-July it was very hot and windy, and most dryland corn was severely damaged. The reduced stand of HPALC 5 was due to poor emergence but that may have contributed to higher yield. Although mean yields for the varieties appear different, the high yield variation led to non-significant differences. Most important is that the skip row plot yielded ~20 bu/ac in extreme drought conditions while the same varieties planted in the conventional 4-row system yielded about 2 bu/ac.

Site Information

Plot Size: 10' x 31 with 30 inch row spacing; no-till
 Experimental Design: randomized complete block, 4 replications
 Previous Crop: winter wheat in a typical ecofallow rotation

Planting rate: planted at 15,000 seeds/ac.
 Soil Type: Vetal loamy fine sand, pH 4.86 OM 1.02%
 Fertilization: 60 lb N as 28-0 pre-emergence
 Herbicide: 1.75 qt Lumax May 11
 Insecticide: Lorsban

Table 17. Dryland corn conventional 4-row variety performance at Sidney¹ in 2006.

Hybrid	Grain		Test	Plant	Ear	Ear
	Yield	Moisture	Weight	Height	Height	Node
	bu/ac	%	lb/bu	in	in	#
DKC52-40 (Myc 2x)	68.5	19.0	57.6	58.5	25.0	7.3
DEKALB DKC52-40 (RR2/YGPL)	67.6	18.7	57.4	58.3	26.0	7.5
DEKALB DKC48-53 (RR2/YGCB)	62.3	18.5	56.5	59.3	24.5	7.3
Triumph TRX6221CbRR (YGCB/RR)	60.9	20.4	54.9	58.3	24.0	7.0
DKC52-40 (Myc carrier)	58.0	18.0	58.0	57.8	25.8	7.8
DEKALB DKC38-33 (RR2/YGCB)	57.6	16.9	58.4	61.8	23.0	6.8
DKC52-40 (TMI AZ06)	53.5	19.8	55.9	55.3	24.0	7.5
HPALC 5	45.0	19.1	55.8	55.8	22.5	7.0
DKC52-40 (Myc 1x)	44.2	19.3	56.6	58.3	24.8	7.3
Trisler T-2850 (RR2CB)	37.0	21.8	55.4	61.5	23.8	6.5
Average	55.5	19.1	56.6	58.5	24.3	7.2
LSD _(0.30)	7.8	0.8	0.9	1	2	0.4

¹Trial conducted at the University of Nebraska High Plains Ag Lab; seeded 5/11 and harvested 10/20.

*All entries had lower yields in the skip row block. In general, the double skip-row planting pattern lowered test weights, shortened plants, lowered ears, and increased double earing. Initial emergence was poor and variable, due to extreme dry conditions at planting time. Many plants didn't emerge until after rains in the last week of June. Rain at the end of season increased yields.

Site Information

Plot Size: 5' x 24

Experimental Design: randomized complete block, 4 replications

Previous Crop: wheat

Planting rate: planted at 15,000 seeds/ac

Soil Type: Alliance loam

Fertilization: 7 lbs N acre⁻¹; 24 lbs P₂O₅ acre⁻¹; .75 lbs Zn acre⁻¹; 50 lb N (32-0-0)

Herbicide: Roundup preplant, Atrazine, Dual, Lorsban pre-emergence

Table 18. Dryland corn skip row block variety performance at Sidney¹ in 2006.

Hybrid	Grain		Test	Plant	Ear	Ear
	Yield	Moisture	Weight	Height	Height	Node
	bu/ac	%	lb/bu	in	in	#
DKC52-40 (TMI AZ06)	69.6	18.3	57.4	57	23	8.0
DEKALB DKC52-40 (RR2/YGPL)	59.7	18.8	55.6	54	21	7.8
DEKALB DKC38-33 (RR2/YGCB)	51.4	16.0	59.1	56	22	7.3
DEKALB DKC48-53 (RR2/YGCB)	50.5	21.0	54.8	55	20	6.8
DKC52-40 (Myc 1x)	50.1	19.9	54.6	56	22	7.0
DKC52-40 (Myc carrier)	49.2	19.2	56.4	54	22	7.8
Trisler T-2850 (RR2CB)	46.5	23.1	54.1	57	18	7.3
Triumph TRX6221CbRR (YGCB/RR)	45.0	24.1	52.0	56	20	7.5
DKC52-40 (Myc 2x)	44.3	18.6	55.8	55	22	8.0
HPALC 5	28.4	17.8	55.8	49	16	7.0
Average	49.5	19.7	55.6	55	20	7.4
LSD _(0.30)	12.2	1.6	1.3	2	2	0.5

¹Trial conducted at the University of Nebraska High Plains Ag Lab; seeded 5/11 and harvested 10/20.

*All entries had lower yields in the skip row block. In general, the double skip-row planting pattern lowered test weights, shortened plants, lowered ears, and increased double earing. Initial emergence was poor and variable, due to extreme dry conditions at planting time. Many plants didn't emerge until after rains in the last week of June. Rain at the end of season increased yields.

Site Information

Plot Size: 5' x 24

Experimental Design: randomized complete block, 4 replications

Planting rate: mistakenly planted at 7,500 seeds/ac, instead of 15,000 seed/ac.

Previous Crop: wheat

Soil Type: Alliance loam

Fertilization: 7 lbs N acre⁻¹; 24 lbs P₂O₅ acre⁻¹; .75 lbs Zn acre⁻¹; 50 lb N (32-0-0)

Herbicide: Roundup preplant, Atrazine, Dual, Lorsban pre-emergence

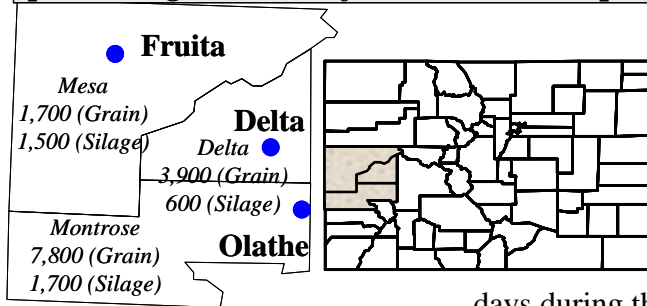
Myconate® Description:

Myconate® is a new agricultural product originally developed by researchers at Michigan State University. Myconate® is a signal compound put out by plant roots in times of stress that is intended to encourage beneficial fungi (mycorrhizae) to colonize them. Beneficial fungi extend the plants root system and can help plants take up nutrients and water, and fight off disease. Applying Myconate® on the seed or at planting encourages mycorrhizal development before the onset of stress. Previous research has reportedly shown significant yield increases on a number of crops in a variety of locations. This simple compound is non-toxic, is quickly broken down in the soil, and is effective in very small quantities. It is available in several formulations some of which are water soluble and is easy to apply to seeds or to soil.

Myconate® is a trademark product of Plant Health Care, Inc., 440 William Pitt Way, Pittsburgh, PA 15238, and telephone 412-826-5488 x152.

Western Slope Irrigated Grain Corn Performance Data

Three Western Slope corn grain and silage trial locations in 2006 with 2005 acreage harvested in three important corn producing counties of the Western Slope.



Over 3 million bushels of corn grain are produced on some 30,000 acres of irrigated farmland on the Western Slope every year, bringing in over \$8 million to local producers. Calvin Pearson of the Colorado Agricultural Experiment Station evaluates long-season and short-season corn grain hybrids to provide reliable and unbiased information to Western Slope producers.

In 2006, there were 14 days during the summer when temperatures reached or exceeded 100°F. In 2005, there were 10 ten days during the summer when temperatures reached 100°F.

The average growing season for Fruita is 181 days. The 2006 growing season was 184 days.

Table 19. Irrigated short season corn variety performance at Delta¹.

Hybrid	Yield bu/ac	Grain		Test		Ear	
		Moisture %	Weight lb/bu	Density plants/ac	Lodging %	Drop %	
Grand Valley X4HO3C	250.8	15.0	58.5	33668	0.3	0.0	
Grand Valley 12A34	249.3	14.8	58.7	34167	0.9	0.0	
Grand Valley X4B22N	235.4	14.9	59.5	30628	0.2	0.0	
Garst 8688 GT	227.4	15.3	58.4	33941	0.0	0.0	
Garst 8745 YG1/RR	203.2	14.9	58.4	32352	0.1	0.3	
Garst 8827 CB/LL/GT	192.3	15.6	59.3	34757	0.9	0.0	
Grand Valley X3RO6P	178.8	14.9	59.4	33124	1.3	0.0	
Average	219.6	15.0	58.9	33234	0.5	0.0	
LSD _(0,30)	8.5						

¹Trial conducted on the Wayne Brew farm; seeded 5/1 and harvested 12/13.

Site Information

Plot Size: 5x50ft
Experimental Design: randomized complete block, 4 replications
Seeding Rate: approximately 35,890 seeds/acre
Previous Crop: pinto bean
Irrigation: siphon tubes using 9 irrigations with 18-hour sets over the growing season
Growing Degree Days: 2821 (2006 GDD); 2590 (Long Term Ave GDD)

Soil Type: Mesa clay loam

Fertilization: 75 lbs P₂O₅/acre plus 22 lbs N/acre at planting and 200 lbs N/acre applied in two split applications- one on June 7 using 32-0-0 and another on July 2 by bubbling anhydrous ammonia in the irrigation water

Herbicide: 2,4-D at 12 oz/acre on May 21, 2006

Insecticide: applied 1 qt/acre of Comite at layby on 1 July 2006 for mite control

Table 20. 2-yr average irrigated corn variety performance at Delta in 2005-06.

Hybrid	Grain		Test
	Yield	Moisture	Weight
	bu/ac	%	lb/bu
Grand Valley 12A34	260	15	59

Table 21. Irrigated short and long season corn variety performance at Fruita¹.

Hybrid	Grain		Test	Ear		
	Yield	Moisture	Weight	Density	Lodging	Drop
	bu/ac	%	lb/bu	plants/ac	%	%
Garst 8534 YG1/GT	242.5	18.4	57.3	31945	0.6	0.0
Garst 8745 YG1/RR	233.5	16.6	58.7	31491	0.6	0.0
Garst 8688 GT	207.0	16.7	59.2	32716	11.6	0.0
Garst 8827 CB/LL/GT	173.5	16.3	60.0	30719	1.9	0.0
Average	214.1	17.0	58.8	31717	3.7	0.0
LSD _(0.30)	21.8					

¹Trial conducted at the Western Colorado Research Center; seeded 5/4 and harvested 11/8.

Site Information

Plot Size: 5 x 50 ft.
Experimental Design: randomized complete block with four replications
Seeding Rate: 35,890 seeds/acre
Previous Crop: soybean
Irrigation: field was furrow-irrigated 8 times during the growing season using gated pipe
Growing Degree Days: 2922 (2006 GDD); 2673 (Long Term Ave GDD)
Soil Type: Youngston fine sandy loam

Fertilization: Fertilizer was applied broadcast prior to planting (22 lbs N/acre and 104 lbs P₂O₅/acre) on May 3, 2006 and N was side-dressed (160 lbs N/acre as 32-0-0 in a split application of 80 lbs 2006. N/acre on each side of the corn row) on June 7, 2006
Herbicide: Applied Lasso herbicide PPI at 2.5 qts/acre on May 3, 2006 using 22 gallons water per acre at 25 PSI
Insecticide: Dimethoate (1pt/acre) and Comite (2.25 pt/acre) was applied by ground using drop nozzles and in 20 gallons water/acre on June 28, 2006 to control spider mites

Corn Silage Performance Data for Eastern Colorado and the Western Slope

Colorado farmers cut 100,000 irrigated acres of corn for silage in 2005 averaging 24.5 t/ac and another 10,000 acres of non-irrigated corn averaged 8 t/ac.

Colorado State University personnel evaluate commercial corn silage hybrids at multiple locations to provide Colorado farmers with reliable and unbiased hybrid performance information. In 2006, corn silage hybrids were evaluated at Rocky Ford in eastern Colorado and at Fruita and Olathe on the Western Slope. The silage yields given below are reported in tons per acre adjusted to 70% moisture content. The moisture content at the time of harvest is an indicator of hybrid maturity at harvest.

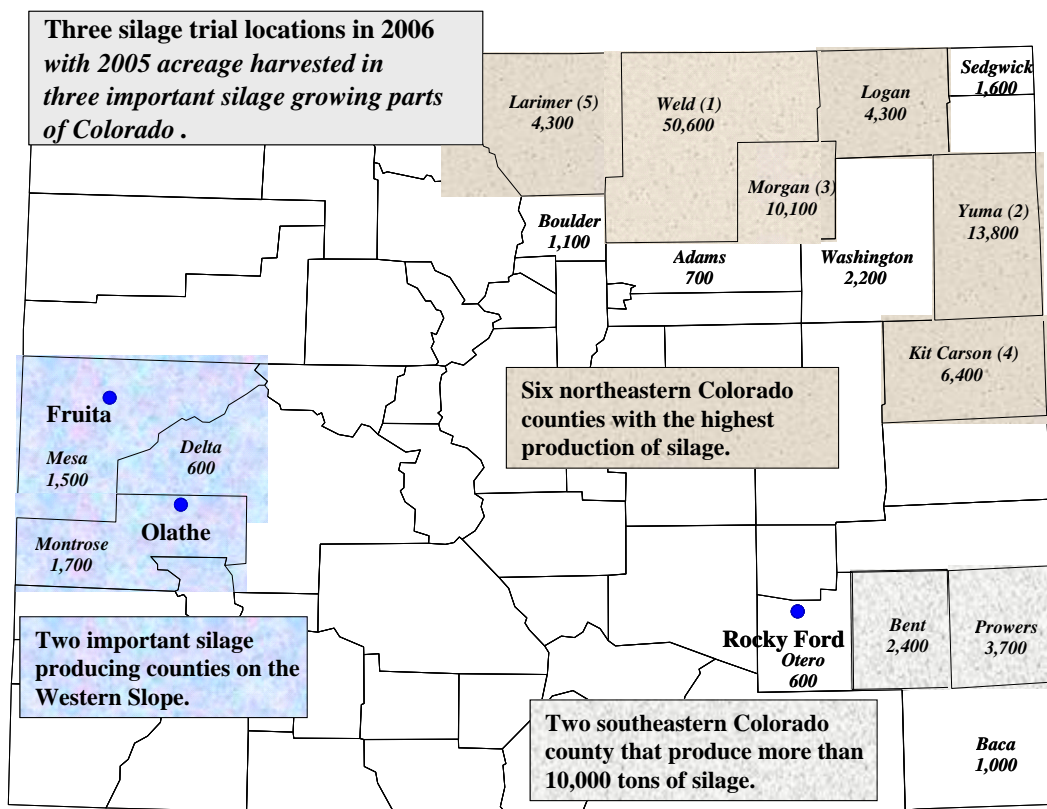


Table 22. Corn silage variety performance at Fruita¹.

Hybrid	Yield t/ac	Moisture %	Density plants/ac	Plant Height in	Ear Height in
Garst 8380 IT	37.8	56.0	33921	121	51
Grand Valley 26R50	37.5	59.6	32855	127	58
Garst 8248 RR	35.2	56.8	33504	124	56
Grand Valley X7RP12P	30.2	58.5	33411	113	47
Average	35.2	57.7	33423	121	53
LSD _(0.30)	4.1				

¹Trial conducted at the Western Colorado Research Center; seeded 5/4/06 and harvested 9/18/06.

*Moisture corrected to 70%.

Site Information

Plot Size: 5 x 50 feet

Experimental Design: randomized complete block, 4 replications

Seeding Rate: approximately 35,890 seeds/acre

Previous Crop: soybean

Irrigation: furrow irrigation using gated pipe

Growing Degree Days: 2922 (2006 GDD); 2673 (Long Term Ave GDD)

Soil Type: Youngston fine sandy loam

Fertilization: fertilizer was applied broadcast prior to planting (22 lbs N/acre and 104 lbs P2O5/acre) on May 3 and N was side-dressed (160 lbs N/acre as 32-0-0 in a split application of 80 lbs N/acre on each side of the corn row) on June 7, 2006

Herbicide: applied Lasso herbicide PPI at 2.5 qts/acre on May 3, 2006 using 22 gallons water per acre at 25 PSI

Insecticide: Dimethoate (1pt/acre) and Comite (2.25 pt/acre) was applied by ground using drop nozzles and in 20 gallons water/acre on June 28, 2006 to control spider mites

Table 23. 2-yr average corn silage variety performance at Fruita in 2005-06.

Hybrid	Yield t/ac	Moisture %
Grand Valley 26R50	39.3	63.9

Table 24. Corn silage variety performance at Olathe¹.

Hybrid	Yield t/ac	Moisture %	Density plants/ac	Plant	Ear
				Height in	Height in
Grand Valley 24W55	34.7	67.2	36192	125	54
Grand Valley 25R35	33.0	66.7	35635	124	51
Garst 8478 CB/LL/GT	30.7	66.3	36099	109	39
Garst 8534 YG1/GT	30.7	63.8	35311	111	46
Grand Valley 23W53	27.6	67.5	32994	118	48
Average	31.3	66.3	35246	117	47
LSD _(0.30)	4.8				

¹Trial conducted on the Earl Seymour farm; seeded 4/28/06 and harvested 9/13/06.

*Moistures corrected to 70%.

Site Information

Plot Size: 5 x 50 feet

Experimental Design: randomized complete block, 4 replications

Seeding Rate: approximately 34,890 seeds/acre

Previous Crop: corn

Irrigation: furrow using gated pipe

Growing Degree Days: 2821 (2006 GDD); 2590 (Long Term Ave GDD)

Soil Type: sandy clay loam

Fertilization: 57 lbs N/acre and 52 lbs P₂O₅/acre preplant broadcast; 12 gals/acre of 10-34-0 at planting; 30 gals

/acre of 32-0-0 side dress during the one cultivation done during the growing season

Herbicide: Harness herbicide PPI at 1 qt/acre

Insecticide: Comite was applied aerially in mid-August to control spider mites

Table 25. 2-yr average corn silage variety performance at Olathe in 2005-06.

Hybrid	Yield	Moisture
	t/ac	%
Grand Valley 25R35	31.6	68.5

Table 26. Corn silage variety performance at Rocky Ford¹.

Hybrid	Yield t/ac	Moisture %	Plant		
			Height in	Density plants/ac	Silking ² date
Dyna-Gro 58K22 (RR)	36.2	67.7	102	30492	200
Mycogen 2Q806	35.4	69.7	99	29948	202
Triumph 1866 (BT/YGCB)	35.2	64.5	100	27633	197
Mycogen 2N802 (RR)	34.2	66.8	102	29267	194
Crows 6621R (RR)	31.6	66.7	90	29585	202
NK Brand N76-M5 (Bt/LL)	30.9	64.8	88	31581	196
Triumph 1756CbRR (YGCB/RR)	30.4	70.7	90	30946	199
Mycogen 2F797	28.6	68.9	95	30220	192
Average	32.8	67.5	96	29959	198
LSD _(0.30)	3.7				

¹Trial conducted at the Arkansas Valley Research Center; seeded 4/27 and harvested 8/29.

²Julian date, 70% silking.

*Moisture corrected to 70%.

**Most entries were at the hard dough growth stage at harvest (cutting).

Site Information

Plot Size: 5' x 32' with 30" row spacing

Experimental Design: randomized complete block, 3 replications

Previous Crop: onions

Irrigation: furrow

Growing Degree Days: 2948 (2006 GDD); 2837 (Long Term Ave GDD)

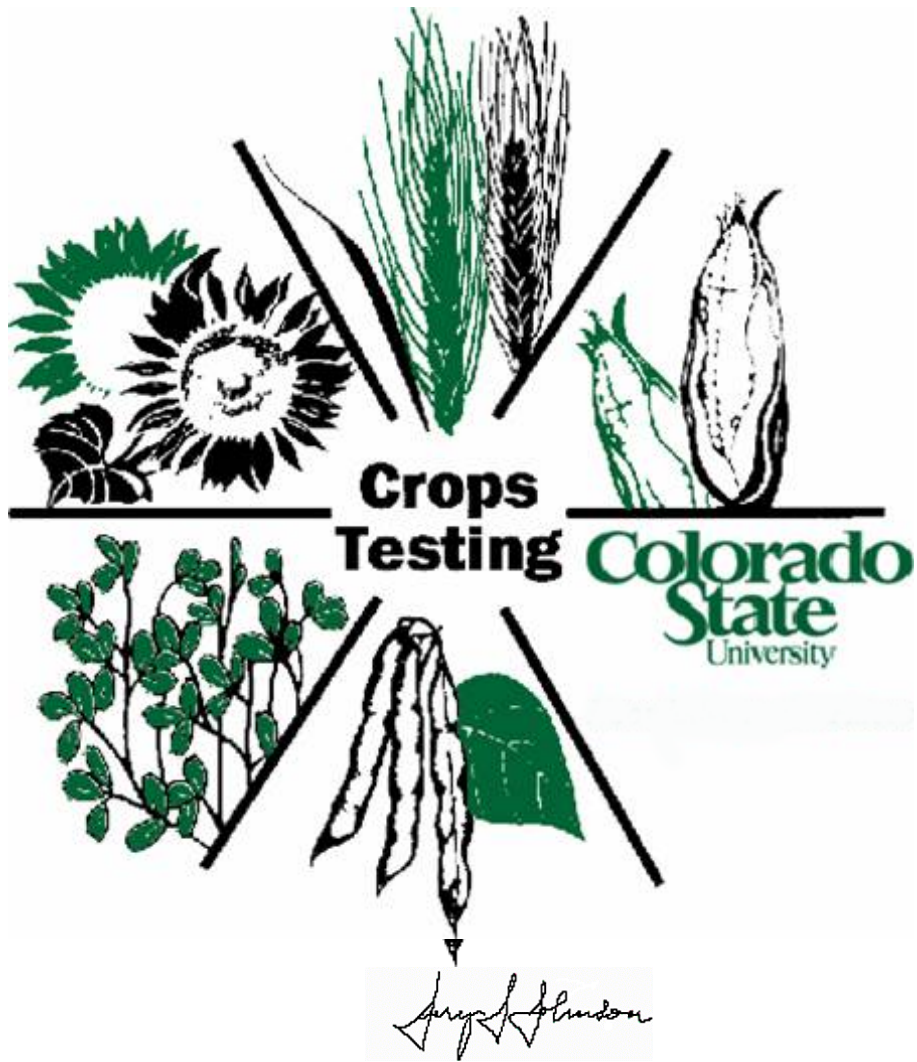
Soil Type: Rocky Ford silty clay (fine-silty, mixed, calcareous, mesic Ustic Torriorthents)

Fertilization: 200 lbs of 11-52-0 acre⁻¹; 300 lbs Urea (46-0-0) acre⁻¹

Herbicide: Dual II Magnum at 1.43 ai/acre plus glyphosate at 1.0 lb ai/acre in 18 gal/a

Seed Company Entrants in the 2006 Colorado Corn Performance Trials

Entrant	Brand/Hybrid	Address	Telephone
Crows Hybrid Corn Co.	Crows	117 Newport Road, Davis, IL 61019	815-248-3552
Dyna-Gro Seeds	Dyna-Gro	P.O. Box 2050, Kearney, NE 68848	308-237-5194
Fontanelle Hybrid, Inc.	Fontanelle	10981 8 th Street, Fontanelle, NE 68044	402-721-1410
Grand Valley Hybrids	Grand Valley	840 23 Road, Grand Junction, CO 81505	970-243-3115
LG Seeds	LG	22827 Shissler Road, Elmwood, IL 61529	309-742-2211
Monsanto	DEKALB/Asgrow	102 W. Carol Avenue, Cortland, IL 60112	815-754-4809
Mycogen Seeds	Mycogen	9330 Zionsville Road, Indianapolis, IN 46268	317-337-4662
NK Brand Seeds, Inc.	NK Brand	86852 572 nd Avenue, Box 277, Laurel, NE 68745	402-256-9109
Plant Health Care, Inc.	Myconate	440 William Pitt Way, Pittsburgh, PA 15238	412-826-5488
Producers Hybrids	Producers Hybrids	26 Chantilly Street, Grand Island, NE 68803	308-750-4245
Terra Max, Inc.	TMI	7769 95 th Street, Cottage Grove, MN 55016	651-458-4401
Trisler Seed Farms, Inc.	Trisler	3274 E. 800 North Road, Fairmount, IL 61841	217-288-9301
Triumph Seed Co, Inc.	Triumph	P.O. Box 1050, Ralls, TX 79357	800-530-4789



Jerry Johnson, Extension Specialist Crop Production



Department of Soil and Crop Sciences
1170 Campus Delivery
Fort Collins, Colorado 80523-1170

