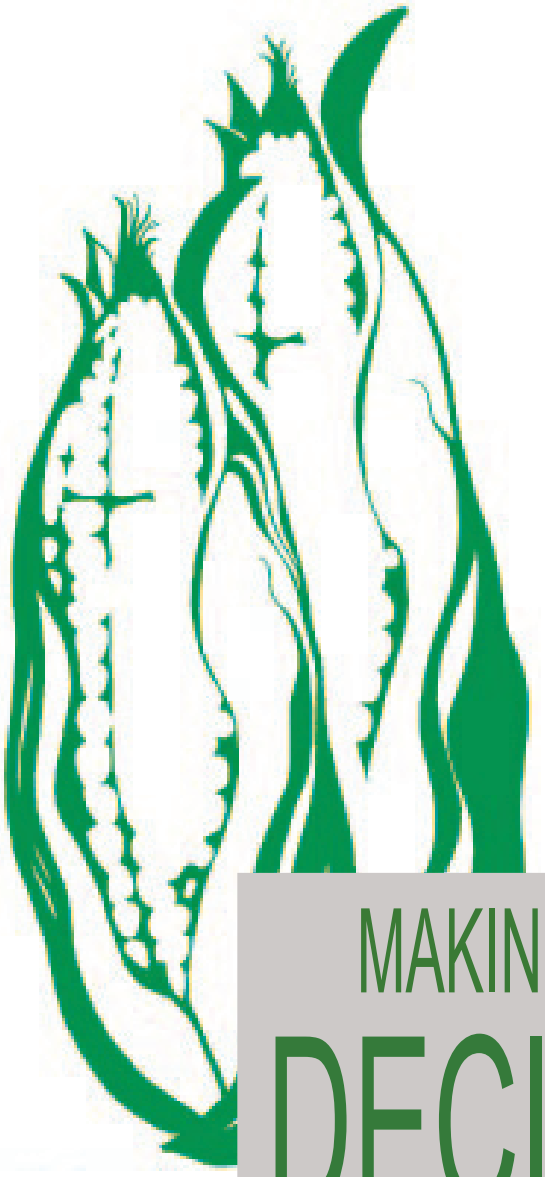
Technical Report TR09-09 December 2009

Agricultural Experiment Station

Colorado State University

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



MAKING BETTER DECISIONS

2009 Colorado Corn Variety Performance Trials

Acknowledgments

The authors express their gratitude to the Colorado farmers who generously contributed the use of their land, equipment, and time to conduct these trials for the good of all Colorado corn producers:
• Burlington (Stratton) – Chuck Pautler
• Julesburg (Haxtun) – Greg Larsen
• 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
Colorado State University Extension
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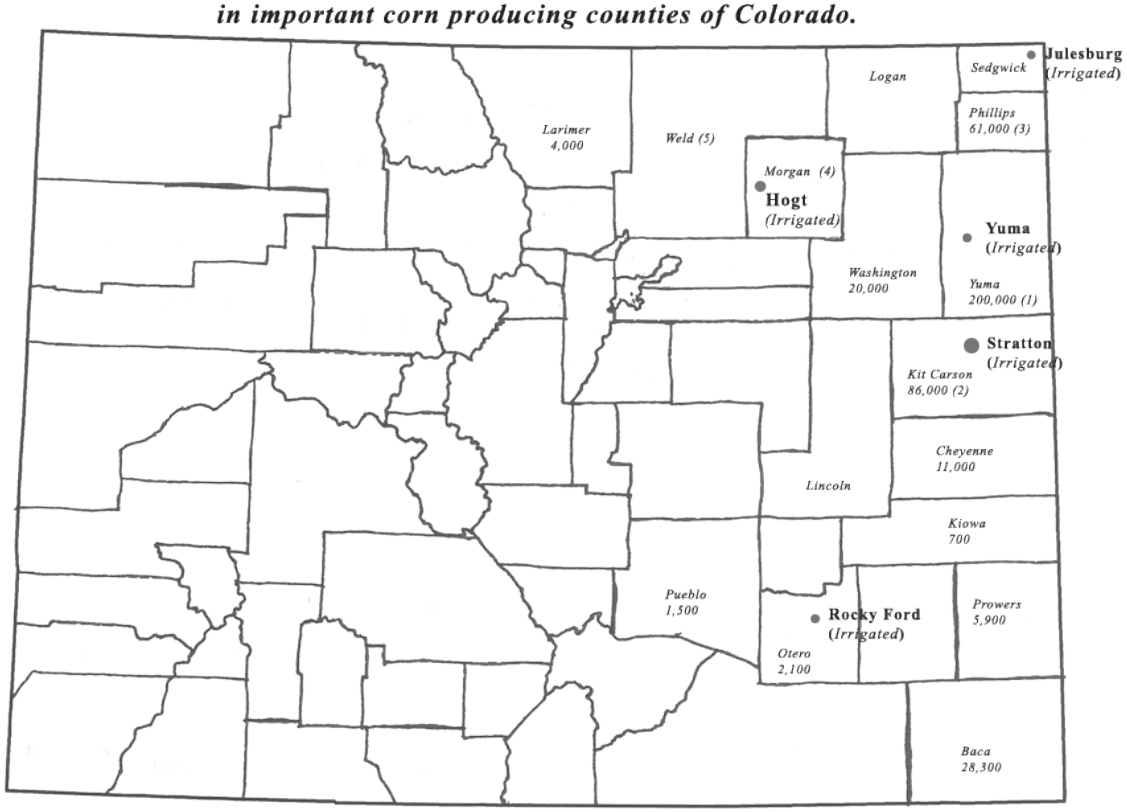
2009 Colorado Corn Hybrid Performance Trials

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 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 in 2009. The results from these trials are presented in the following tables which are intended to be stand-alone and self explanatory. Unfortunately we lost two trials this year- one to severe hail (Yuma) and one to heavy stands of volunteer corn (Julesburg). Personnel and operational costs for conducting these trials come from Colorado State University, and seed company entry fees.

Six eastern Colorado corn trial locations in 2009 *with 2006 acreage harvested in important corn producing counties of Colorado.*



2009 Irrigated Corn Variety Performance Trial at Burlington (Stratton)

Brand	Hybrid	Yield	Grain Moisture	Test Weight	Plant Height	Plant Population	Lodging
		bu/ac	%	lb/bu	in	Plants/ac	%
Monsanto	DKC55-24 (VT3)	224.4	29.6	51.2	87.3	29105	0
Syngenta	N72Q-CB/LL/RW	214.0	39.5	47.1	91.3	29977	0
Monsanto	DKC51-13 (VT3)	207.5	29.3	49.1	84.3	28300	1
Monsanto	DKC52-59 (VT3)	207.3	29.1	47.8	83.7	29422	0
Triumph	1204V	206.7	40.6	48.8	90.3	29873	0
Monsanto	DKC61-69 (VT3)	204.3	39.2	48.9	86.0	28564	0
LG Seeds	LG2575BT	201.4	35.6	46.2	89.3	28650	0
Mycogen	2R577	200.1	32.5	47.8	92.0	28841	0
Monsanto	DKC58-16 (VT3)	195.8	35.6	47.4	83.0	29134	0
Mycogen	2E696	193.4	37.5	48.9	92.7	28900	1
Monsanto	DKC59-35 (VT3)	190.0	38.1	48.4	89.3	29019	1
Syngenta	N74C-3000GT	189.8	40.0	48.2	100.3	30111	0
Triumph	1121V	188.6	36.5	48.5	92.3	29134	0
LG Seeds	LG2641VT3	179.7	41.0	46.6	90.0	28881	0
Monsanto	DKC62-54 (VT3)	178.9	39.3	48.3	88.0	27979	1
LG Seeds	LG2549VT3	178.4	39.2	45.1	90.3	29516	0
Syngenta	N68B-CB/LL/RW	174.6	40.6	46.7	85.7	28117	0
Mycogen	2V732	172.9	41.2	47.5	90.3	28946	1
Triumph	1305X	165.8	39.2	45.9	84.7	29022	0
Mycogen	2T789	162.8	40.3	49.1	97.0	29105	0
	Average	**191.8**	**37.2**	**47.9**	**89.4**	**29030**	
	$LSD_{(0.30)}$	17.7					
	$LSD_{(0.05)}$	34.2					

$LSD_{(0.30)}$ is useful for producers using these results to select a variety but some collaborators find $LSD_{(0.05)}$ useful.

Experimental Design: randomized complete block, three replications
Plot size: 5' x 31'

Site Information

Collaborator: Chuck Pautler
Soil Type: Rago-Weld silt loam
Previous Crop: Wheat
Planting Date: 5/5/2009
Irrigation Center pivot sprinkler
Fertilization: N-P-K-S-Zn-Fe-Mg (175-30-0-0-0.5) lb/ac
Herbicide: Lumax
Insecticide: None
Harvest Date: 10/16/2009
Note: Trial harvested as high moisture corn.

2009 Irrigated Corn Variety Performance Trial at Rocky Ford[1]

Hybrid	Yield	Grain Moisture	Test Weight	Plant Height	Plant Population	Lodging
	bu/ac	%	lb/bu	in	plants/ac	%
Croplan 6168	297.6	17.5	58.9	93.3	34848	3.7
Triumph 1536 H	267.4	16.6	58.6	90.7	32670	1.3
Mycogen 2T789	274.6	16.4	58.6	92.3	32670	3.3
Mycogen 2T804	296.2	16.6	58.9	91.3	34122	2.3
Mycogen 2V732	288.6	16.2	58.0	89.7	36300	1.3
Triumph 7514X	278.2	16.9	57.7	87.7	34848	1.7
LG Seeds 2619VT3	291.1	16.7	57.5	93.0	36000	0.3
LG Seeds 2642VT3	297.2	17.0	57.2	91.3	35574	0.7
Syngenta NK N72K-GT/CB/LL	296.2	17.6	56.7	95.0	34848	3.7
Syngenta NK N74C-3000GT	286.2	17.1	57.9	93.7	34848	0.0
Triumph 1305X	259.8	16.0	58.0	89.0	35574	2.0
Average	**284.8**	**16.8**	**58.0**	**91.5**	**34755**	**1.8**
$LSD_{0.30}$	16.5					
$LSD_{.05}$	32.3					

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

Experimental Design: randomized complete block, 3 replications.

Harvested Plot size: 5' x 30'

Site Information

Collaborator:	Arkansas Valley Research Center (Mike Bartolo)
Soil type:	Rocky Ford silty clay
Previous Crop:	Alfalfa
Planting Date:	4/30/2009
Irrigation:	furrow
Fertilization:	N-P-K (202-104-0) lb/ac
Herbicide:	Dicamba
Insecticide:	Comite II
Harvest Date:	11/5/2009

Yields corrected to 15.5 % moisture.

2009 Irrigated Corn Variety Performance Trial at Wiggins

Company	Hybrid	Yield	Grain Moisture	Test Weight	Plant Height	Plant Population	Lodging
		bu/ac	%	lb/bu	in	plants/ac	%
Monsanto	DKC52-59 (VT3)	251.8	15.6	56.4	83	33,818	0.3
Monsanto	DKC55-24 (VT3)	241.4	16.1	58.6	84	31,375	0.7
Mycogen	2Y547	239.0	16.2	56.6	89	32,184	0.3
Monsanto	DKC61-69 (VT3)	233.2	17.4	53.1	94	34,942	0.7
Mycogen	2R577	224.2	16.2	56.0	90	30,785	0.0
LG Seeds	LG2547VT3	223.7	15.7	52.4	84	33,818	0.3
Triumph	9958VT3	223.4	15.9	59.2	89	31,288	0.7
Monsanto	DKC51-13 (VT3)	222.3	16.3	58.1	85	31,531	0.0
Syngenta	N58L-3000GT	221.7	17.2	55.7	88	30,070	0.3
Triumph	5501X	219.6	17.0	55.2	97	31,073	1.0
Monsanto	DKC58-16 (VT3)	219.2	17.4	54.6	82	33,897	1.3
LG Seeds	LG2507VT3	219.1	15.5	58.4	87	33,349	1.0
Monsanto	DKC62-54 (VT3)	216.5	17.3	54.3	90	31,569	0.7
Triumph	1121V	215.0	17.9	56.6	92	31,926	1.3
Monsanto	DKC59-35 (VT3)	214.8	19.2	53.7	89	32,519	0.3
Mycogen	2E696	213.0	18.1	56.5	90	32,506	0.3
Syngenta	N68B-CB/LL/RW	211.3	18.6	51.9	84	31,195	2.0
Mycogen	2K662	194.5	17.6	52.4	93	31,850	0.3
Average		**222.4**	**17.0**	**55.5**	**88**	**31,240**	**0.6**
$LSD_{(0.30)}$		8.5					
$LSD_{(0.05)}$		16.5					

$LSD_{(0.30)}$ is most useful for producers using these results to select a variety but some collaborators find $LSD_{(0.05)}$ useful.

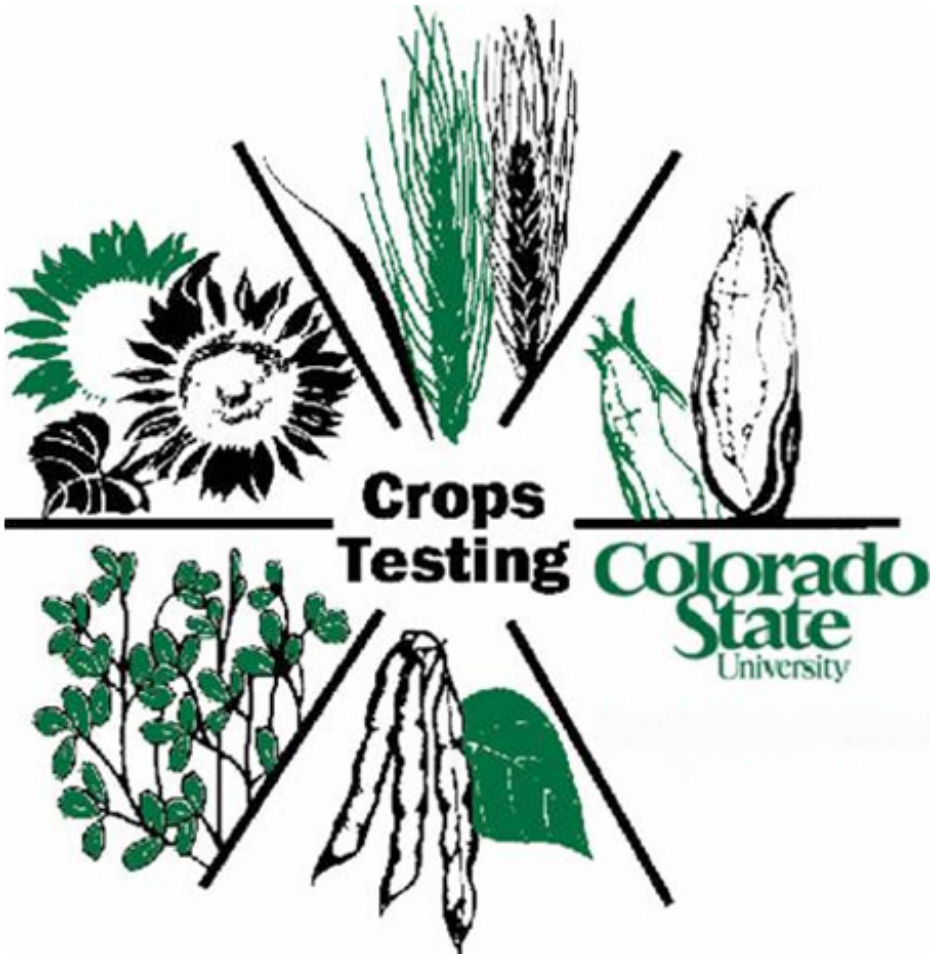
Experimental Design: randomized complete block, 3 replications

Harvest plot size: 5' x 31'

Site Information

Collaborator: Cooksey Farms
Soil Type: Clay-Loam
Previous Crop: Pumpkins
Planting Date: 5/8/2009
Irrigation: Sprinkler
Fertilization: N-P-K (200-40-10) lb/ac
Herbicide: Lumax
Insecticide: none
Harvest Date: 11/30/2009

Yields Corrected to 15.5% moisture



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