

2024 Texas A&M AgriLife Extension Grain Sorghum Hybrid Trials

Coastal Bend and Upper Gulf Coast Regions



Department of Soil and Crop Sciences
Texas A&M AgriLife Extension Service

2024 Texas A&M AgriLife Extension Grain Hybrid Trials – Rio Grande Valley, Coastal Bend, and Upper Gulf Coast Regions

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Introduction

Hybrid selection is one of the most important decisions a grower must make each year and will dictate much of the management required for the duration of the season. Texas AM AgriLife Extension conducts grain sorghum hybrid trials in select counties each year to provide growers in the region with accurate and unbiased information on hybrid performance. These trials are a cooperative effort among local growers, seed company representatives, and Texas A&M AgriLife Extension personnel.

Trials are conducted on-farm or at Texas A&M AgriLife Research Centers and are typically planted, managed, and harvested with commercial equipment. All test sites are managed according to practices common to each production region. In each trial, hybrids are replicated 3-4 times across the field to allow statistical tests to be performed on the yield data. Due to limited seed availability and difficulties at harvest due to tropical weather, several trials on the Upper Gulf Coast were not fully replicated or were lost to inclement weather. For the trials where full replication was possible, the LSD (Least Significant Difference) value indicates the minimum difference between two hybrids for yield, moisture, or test weight to be considered statistically significant. In the summary tables for each trial, connecting letters reports are included for each type of data collected. When data are followed by different letters, a significant difference exists. Data followed by the same letter are considered to be statistically similar. The Coefficient of Variation (CV%) indicates the level of unexplained variability in the data. High CV values (greater than 15%) indicate a high level of variability in the data, possibly due to poor stands, pest issues, or harvest problems.

Trial: Willacy County

Cooperator: Dos Palmas Farms

County Extension Agent: Georgina Macias

Planting Date: Feb 28, 2024

Seeding Rate: 55,000/acre

Row Spacing: 30"

Plot Size: 0.4 acre

Harvest Date: Jun 17, 2023

Brand	Hybrid	Moisture		Test Weight		Yield ¹	
			%		lb/bu		lb/A
Dyna-Gro	M71GR91	13.1	a	60.0		3219	a
BH Genetics	BH 4220	12.9	b	59.7		3211	a
Dekalb	DKS 44-07	13.1	a	59.8		3205	ab
BH Genetics	BH 5755	13.2	a	60.8		3101	ab
Dyna-Gro	M66GR32	12.9	b	61.2		3048	b
Dekalb	DKS 54-07	13.2	a	60.7		2782	c
Mean		13.1		60.4		3094	
P>F		0.0108		0.1976		0.0007	
LSD (0.05)		0.2		NS		158	
CV (%)		0.88		1.30		2.81	

¹Yields standardized to 14% moisture content.

²Within a column, means followed by the same letter are statistically similar.

Trial: Cameron County

Cooperator: Chuck McCuchen

County Extension Agent: Marco Ponce

Planting Date: Mar 4, 2024

Row Spacing: 40"

Plot Size: 0.8 acre

Brand	Hybrid	Moisture		Test Weight		Yield ¹	
		%		lb/bu		lb/A	
LG Seeds	3180B	14.3	c	53.0	b	4292	
LG Seeds	4880R	14.9	abc	58.0	a	4097	
BH Genetics	BH 4220	15.3	a	57.0	a	4075	
BH Genetics	BH 5755	15.6	a	58.3	a	4058	
Dekalb	DKS44-07	14.4	bc	59.0	a	3971	
Dyna-Gro	M71GR91	15.6	a	58.7	a	3928	
Dyna-Gro	M66GR32	14.6	bc	57.0	a	3918	
Dekalb	DKS54-07	15.0	ab	59.0	a	3879	
Mean		14.9		57.5		4027	
P>F		0.0062		0.0097		0.4389	
LSD (0.05)		0.7		2.9		NS	
CV (%)		2.73		2.87		5.60	

¹Yields standardized to 14% moisture content.

²Within a column, means followed by the same letter are statistically similar.

Trial: Nueces County

Seeding Rate: 66,000/acre

Cooperator: Texas A&M AgriLife Research

Fertility: 98-38-0

County Extension Agent: Jaime Lopez

Row Spacing: 38"

Planting Date: Mar 4, 2024

Plot Size: 0.01 acre

Harvest Date: Jun 17, 2024

Brand	Hybrid	Moisture		Test Weight		Yield ¹	
		%		lb/bu		lb/A	
Dekalb	DKS 44-07	14.6	b	60.2	a	3202	
Dyna-Gro	M71GR91	14.5	b	60.7	a	3193	
BH Genetics	BH 4220	14.0	c	59.3	b	3141	
Dekalb	DKS 54-07	15.2	a	59.3	b	3100	
BH Genetics	BH 5755	14.7	b	60.6	a	2815	
Dyna-Gro	M66GR32	14.5	b	60.2	a	2777	
Mean		14.6		60.0		3038	
P>F		0.0011		0.0040		0.4235	
LSD (0.05)		0.4		0.8		NS	
CV (%)		1.95		0.85		12.28	

¹Yields standardized to 14% moisture content.

²Within a column, means followed by the same letter are statistically similar.

Trial: Nueces County

Cooperator: S&S Farms

County Extension Agent: Jaime Lopez

Planting Date: Mar 1, 2024

Row Spacing: 20"

Plot Size: 0.85 acre

Harvest Date: Jul 1, 2024

Brand	Hybrid	Moisture		Test Weight		Yield ¹	
		%		lb/bu		lb/A	
Dyna-Gro	M71GR91	13.5		60.3	a	3673	a
BH Genetics	BH 5755	13.5		60.0	a	3585	ab
Dyna-Gro	M66GR32	13.7		58.7	b	3436	ab
Dekalb	DKS54-07	13.7		58.3	b	3383	ab
Dekalb	DKS44-07	13.6		60.0	a	3341	b
BH Genetics	BH 4220	13.5		58.7	b	2400	c
Mean		13.6		59.3		3303	
P>F		0.9582		0.0128		0.0001	
LSD (0.05)		NS		1.2		295	
CV (%)		3.20		1.11		4.91	

¹Yields standardized to 14% moisture content.

²Within a column, means followed by the same letter are statistically similar.

Trial: Nueces County

Cooperator: Faske Farms

County Extension Agent: Jamie Lopez

Planting Date: Mar 4, 2024

Row Spacing: 36"

Plot Size: 0.8 acre

Harvest Date: Jul 1, 2024

Notes: Non-replicated demonstration plot

Brand	Hybrid	Moisture		Test Weight		Yield ¹	
		%		lb/bu		lb/A	
BH Genetics	BH 4220	13.5		59.0		5159	
Dekalb	DKS44-07	13.8		61.0		5029	
LG Seeds	X-2251	12.3		60.0		5027	
Dyna-Gro	M62GB36	12.5		60.0		5004	
Rob-See-Co	GS6455	13.1		60.0		4970	
Dekalb	DKS40-76	13.4		61.0		4948	
LG Seeds	3180B	12.5		59.0		4853	
Rob-See-Co	GS6884	12.8		61.0		4840	
Dyna-Gro	M70GR37	14.0		61.0		4824	
Dekalb	DKS54-07	13.6		60.0		4823	
Dekalb	DKS45-60	13.8		61.0		4814	
LG Seeds	3960B	12.7		59.0		4691	
Dyna-Gro	M71GR91	13.6		62.0		4676	
Rob-See-Co	4110	12.6		55.0		4657	
Rob-See-Co	6850	13.7		60.0		4624	
BH Genetics	BH 5755	13.5		61.0		4593	
Dyna-Gro	M66BR32	14.2		61.0		4467	
LG Seeds	4880R	13.2		63.0		4450	
Rob-See-Co	5994DT	13.1		60.0		4441	
Mean		13.3		60.2		4784	

¹Yields standardized to 14% moisture content.

Trial: San Patricio County

Cooperator: Andrew Miller

County Extension Agent: Bob McCool

Planting Date: Feb 26, 2024

Row Spacing: 30"

Plot Size: 0.46 acre

Harvest Date: Jul 3, 2024

Brand	Hybrid	Moisture		Test Weight		Yield ¹	
		%		lb/bu		lb/A	
Dyna-Gro	M71GR91	16.6		57.3	a	5342	a
Dekalb	DKS44-07	16.4		57.3	a	5324	a
BH Genetics	BH 5755	16.6		57.0	a	5305	a
Dekalb	DKS54-07	16.8		55.7	b	5298	a
Dyna-Gro	M66GR32	16.1		56.0	b	4955	b
BH Genetics	BH 4220	15.8		56.0	b	4874	b
Mean		16.4		56.6		5183	
P>F		0.1121		0.0003		0.0021	
LSD (0.05)		NS		0.6		225	
CV (%)		2.58		0.62		2.39	

¹Yields standardized to 14% moisture content.

²Within a column, means followed by the same letter are statistically similar.

Trial: Refugio County

Cooperator: Richard Niemann

County Extension Agent: Stephen Biles, Boogie Barber

Planting Date: Mar 5, 2024

Seeding Rate: 62,000/acre

Row Spacing: 30"

Plot Size: 0.45 acre

Harvest Date: July 16, 2024

Brand	Hybrid	Moisture		Test Weight		Yield ¹	
		%		lb/bu		bu/A	
Pioneer	85P58	15.6	cd	61.3	ab	5840	a
Pioneer	82P22	15.8	bcd	61.0	ab	5177	ab
Dekalb	DKS44-07	16.1	bc	61.7	a	5153	ab
BH Genetics	BH 4220	14.8	d	61.0	ab	4898	bc
Dekalb	DKS54-07	16.4	bc	58.0	c	4892	bc
BH Genetics	BH 5755	17.0	ab	59.3	bc	4732	bc
Dyna-Gro	M71GR91	16.9	ab	60.0	abc	4406	c
Dyna-Gro	M66GR32	17.9	a	58.3	c	4220	c
Mean		16.3		60.1		4915	
P>F		0.0188		0.0039		0.0070	
LSD (0.05)		2.2		1.3		704	
CV (%)		7.78		1.20		8.18	

¹Yields standardized to 14% moisture content.

²Within a column, means followed by the same letter are statistically similar.

Trial: Refugio County

Cooperator: Austin Lenhart

County Extension Agent: Stephen Biles, Boogie Barber

Row Spacing: 38"

Plot Size: 0.30 acre

Harvest Date: Jun 28, 2024

Brand	Hybrid	Moisture		Test Weight		Yield ¹	
		%		lb/bu		bu/A	
Dekalb	DKS44-07	15.9		61.2	a	6012	
Dekalb	DKS54-07	16.1		57.7	d	5889	
BH Genetics	BH 4220	15.4		59.2	c	5697	
Dyna-Gro	M66GR32	15.9		59.0	c	5679	
BH Genetics	BH 5755	15.9		60.2	b	5580	
Dyna-Gro	M71GR91	16.1		60.0	b	5539	
Mean		15.9		59.6		5733	
P>F		0.1745		0.0001		0.1537	
LSD (0.05)		NS		0.8		401	
CV (%)		2.13		0.71		3.84	

¹Yields standardized to 14% moisture content.

²Within a column, means followed by the same letter are statistically similar.

Trial: Victoria County

Row Spacing: 38"

Cooperator: Kenneth Hanslik

Plot Size: 0.003 acre

County Extension Agent: Stephen Biles, Matt Bochat

Brand	Hybrid	Moisture		Test Weight		Yield ¹		Lodging	
		%		lb/bu		bu/A		%	
Dekalb	DKS44-07	15.2	a	53.9		5806	a	2	
BH Genetics	BH 4220	14.2	b	52.0		5276	ab	0	
Dyna-Gro	M66GR32	15.6	a	54.1		5241	abc	3	
Pioneer	83P38	15.7	a	54.8		5018	abc	7	
Dekalb	DKS54-07	15.6	a	53.1		4410	bcd	17	
Pioneer	82P22	15.6	a	51.1		4391	bcd	17	
Dyna-Gro	M71GR91	14.8	ab	51.9		3986	cd	22	
LG Seeds	4880R	15.4	a	56.4		3501	d	32	
BH Genetics	BH 5755	15.6	a	53.1		3173	d	37	
Mean		15.3		53.4		4534		15	
P>F		0.0363		0.8467		0.0070		0.0558	
LSD (0.05)		0.6		NS		1282		NS	
CV (%)		3.28		7.62		16.34			

¹Yields standardized to 14% moisture content.

²Within a column, means followed by the same letter are statistically similar.

Trial: Jackson County

Cooperator: Lloyd Kulak Farm

County Extension Agent: Mike Hiller

Planting Date: Feb 28, 2024

Row Spacing: 38"

Plot Size: 1.02 acre

Harvest Date: Jul 16, 2024

Notes: Due to inclement weather, only two replications harvested

Brand	Hybrid	Moisture		Test Weight		Yield ¹	
		%		lb/bu		bu/A	
Dekalb	DKS44-07	15.9		55.8		5976	
Dekalb	DKS54-07	16.7		55.0		5482	
BH Genetics	BH 4220	15.9		55.0		5391	
Dyna-Gro	M70GR37	17.0		55.0		5317	
BH Genetics	BH 5755	16.8		55.5		5156	
Dyna-Gro	M66GR32	15.9		55.8		5134	
Mean		16.3		55.3		5409	

¹Yields standardized to 14% moisture content.

Trial: Wharton County

Cooperator: Duane Lutringer Farm

County Extension Agent: Corrie Bowen

Planting Date: Mar 4, 2024

Row Spacing: 40"

Plot Size: 0.42 acre

Harvest Date: Jul 15, 2024

Notes: Only plot weights (yield monitor) were recorded due to impending hurricane landfall.

Brand	Hybrid	Moisture		Test Weight		Yield ¹	
		%		lb/bu		bu/A	
Pioneer	82P22					6903	a
Dekalb	DKS44-07					6475	b
Dekalb	DKS45-60					6281	bc
BH Genetics	BH 4220					6178	bc
Dyna-Gro	M66GR32					6147	bc
Dyna-Gro	M70GB37					6038	c
Dekalb	DKS54-07					5932	c
LG Seeds	4880R					5536	d
BH Genetics	BH 5755					5484	d
Mean						6108	
P>F						0.0001	
LSD (0.05)						350	
CV (%)						3.31	

¹Yields standardized to 14% moisture content.

²Within a column, means followed by the same letter are statistically similar.

Trial: Matagorda County

Cooperator: Hansen Farms

County Extension Agent: Greg Baker

Planting Date: Mar 3, 2024

Row Spacing: 40"

Plot Size: 1.38 acre

Notes: Limited seed, non-replicated demonstration plot

Brand	Hybrid	Moisture		Test Weight		Yield ¹	
		%		lb/bu		lb/A	
BH Genetics	BH 4220	10.5		61.0		7645	
Dekalb	DKS44-07	10.8		62.0		7518	
Dekalb	DKS45-60	11.3		61.0		7505	
Dyna-Gro	M70GB37	10.5		61.5		6873	
Dekalb	DKS54-07	10.2		61.0		6584	
Dyna-Gro	M66GR32	11.3		61.5		6549	
LG Seeds	4880R	10.7		62.0		5650	
Mean		10.7		61.4		6725	

¹Yields standardized to 14% moisture content.

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