2023 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

2023 Texas A&M AgriLife Extension Grain Hybrid Trials – Rio Grande Valley, Coastal Bend, and Upper Gulf Coast Regions

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Acknowledgements

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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. 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: Hidalgo County

Seeding Rate:

Fertility:

Cooperator: Texas AgriScience

Row Spacing: 30”

County Extension Agent: Vidal Saenz

Plot Size: 0.005 acre

Planting Date: March 5, 2023

Harvest Date: June 26, 2023

Brand	Hybrid	Moisture		Test Weight		Yield[1]	
		%		lb/bu		lb/A	
Dekalb	DKS 44-07	14.3	bc[2]	62.0	a	5728	a
Rob-See-Co	GS 6455	14.0	bc	60.7	cde	5421	ab
Rob-See-Co	GS 6884	14.7	bc	61.0	bcd	5417	ab
DynaGro	M67GB87	13.8	c	59.9	e	5413	ab
LG Seeds	GA4880H	15.0	ab	61.7	ab	5324	b
Dekalb	DKS 54-07	14.8	bc	61.3	abc	4983	c
LG Seeds	3070R	15.1	ab	58.8	f	4647	d
DynaGro	M71GR91	16.0	a	60.5	de	3689	e
Mean		14.7		60.7		5078	
P>F		0.0		<0.0001		<0.0001	
LSD (0.05)		1.1		0.8		316	
CV (%)		6.45		1.84		12.91	

[1]Yields standardized to 14% moisture content.

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

Trial: Nueces County

Seeding Rate: 60,000/acre

Fertility: 65-0-0

Cooperator: Texas A&M AgriLife Research

Row Spacing: 38”

County Extension Agent: Jaime Lopez

Plot Size: 0.01 acre

Planting Date: Feb 22, 2023

Harvest Date: July 5, 2023

Brand	Hybrid	Moisture		Test Weight		Yield[1]	
		%		lb/bu		lb/A	
BH Genetics	BH 4220	13.2		56.5	b[2]	6591	
Dekalb	DKS 44-07	13.2		58.0	ab	6362	
Dekalb	DKS 54-07	13.0		56.1	bc	6301	
DynaGro	M71GR91	13.2		57.3	ab	6132	
BH Genetics	BH 5755	13.3		58.6	a	6107	
DynaGro	M67GB87	13.4		54.3	c	6059	
Mean		13.2		56.8		6259	
P>F		0.5		0.0063		0.6348	
LSD (0.05)		NS		2.1		NS	
CV (%)		2.10		3.36		7.08	

[1]Yields standardized to 14% moisture content.

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

Trial: Nueces County

Seeding Rate: 58,000/acre

Fertility: 72-24-0

Cooperator: S&S Farms

Row Spacing: 20”

County Extension Agent: Jaime Lopez

Plot Size: 0.96 acre

Planting Date: March 1, 2023

Harvest Date: July 6, 2023

Brand	Hybrid	Moisture		Test Weight		Yield[1]	
		%		lb/bu		lb/A	
BH Genetics	BH 4220	13.9		61.3	a[2]	6598	
Dynagro	M67GB87	13.4		58.7	b	6439	
Dekalb	DKS 54-07	13.7		61.7	a	6350	
BH Genetics	BH 5755	13.8		62.7	a	6338	
Dekalb	DKS 44-07	14.0		62.7	a	6299	
Dynagro	M71GR91	13.7		62.0	a	6285	
Mean		13.8		61.5		6385	
P>F		0.4		0.019		0.9114	
LSD (0.05)		NS		2.2		NS	
CV (%)		3.83		2.75		5.11	

[1]Yields standardized to 14% moisture content.

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

Trial: San Patricio County

Seeding Rate:

Fertility:

Cooperator: Andrew Miller

Row Spacing: 30”

County Extension Agent: Bob McCool

Plot Size: 0.4 acre

Planting Date: Feb 27, 2023

Harvest Date: July 18, 2023

Brand	Hybrid	Moisture		Test Weight		Yield[1]	
		%		lb/bu		lb/A	
Dekalb	DKS 44-07	16.7		59.7		6828	a[2]
BH Genetics	BH 4220	15.5		58.7		6569	ab
BH Genetics	BH 5755	15.8		60.7		6271	bc
Dynagro	M71GR91	16.1		60.0		6079	cd
Dekalb	DKS 54-07	15.6		59.0		6059	cd
Dynagro	M67GB87	16.0		55.8		5937	d
Mean		16.0		56.0		6291	
P>F		0.7		0.0872		0.0008	
LSD (0.05)		NS		NS		325	
CV (%)		5.38		3.84		5.78	

[1]Yields standardized to 14% moisture content.

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

Trial: Calhoun County

Seeding Rate: 68,750/acre

Fertility:

Cooperator: Danny May

Row Spacing: 38”

County Extension Agent: Stephen Biles, Hailey Hayes

Plot Size: 0.004 acre

Planting Date: March 23, 2023

Harvest Date: July 12, 2023

Brand	Hybrid	Moisture		Test Weight		Yield[1]	
		%		lb/bu		bu/A	
Dynagro	M71GR91	16.2		62.0	a[2]	5416	a
Dynagro	M67GB87	15.2		57.8	bc	5401	a
BH Genetics	BH 5755	16.0		61.2	a	5205	a
Dekalb	DKS 54-07	16.0		56.7	c	5190	a
BH Genetics	BH 4220	15.3		59.8	ab	4660	b
Dekalb	DKS 44-07	15.8		61.2	a	3618	c
Mean		15.7		59.8		4915	
P>F		0.2		0.0019		0.0001	
LSD (0.05)		NS		2.2		525	
CV (%)		4.26		3.73		20.29	

[1]Yields standardized to 14% moisture content.

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

Trial: Victoria County

Seeding Rate: 68,750/acre

Fertility:

Cooperator: Kenneth Hanslik

Row Spacing: 38”

County Extension Agent: Stephen Biles, Matt Bochat

Plot Size: 0.003 acre

Planting Date:

Harvest Date: July 17, 2023

Brand	Hybrid	Moisture		Test Weight		Yield[1]		Lodging	
		%		lb/bu		bu/A		%	
BH Genetics	BH 4220	12.6	bc[2]	57.5		4908		4.3	b
Dynagro	M67GB87	12.3	c	56.3		4900		4.3	b
BH Genetics	BH 5755	13.8	a	57.6		4823		2.0	b
Dynagro	M71GR91	13.5	a	58.3		4702		1.3	b
Dekalb	DKS 54-07	13.3	ab	56.1		4656		7.5	b
Dekalb	DKS 44-07	14.0	a	57.4		3690		27.5	a
Mean		13.2		57.2		4613		7.8	
P>F		0.0		0.1768		0.0664		0.0013	
LSD (0.05)		0.8		NS		NS		11.1	
CV (%)		7.40		2.61		14.32			

[1]Yields standardized to 14% moisture content.

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

Trial: Wharton County

Cooperator: Duane Lutringer Farm

County Extension Agent: Corrie Bowen

Planting Date: Feb 22, 2023

Seeding Rate: 74,214/acre

Fertility: 136-25-25

Row Spacing: 40”

Plot Size: 0.39 acre

Harvest Date: June 29, 2023

Brand	Hybrid	Moisture		Test Weight		Yield[1]	
		%		lb/bu		bu/A	
Dekalb	DKS 44-07	14.6		63.0		7948	a[2]
Dekalb	DKS 54-07	14.3		62.0		7533	b
DynaGro	M67GB87	14.0		61.0		7488	b
DynaGro	M71GR91	14.2		61.3		7237	c
Mean		14.3		61.8		7552	
P>F		0.1		0.2361		0.0019	
LSD (0.05)		NS		NS		237	
CV (%)		3.45		1.93		3.95	

[1]Yields standardized to 14% moisture content.

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

Trial: Matagorda County

Seeding Rate:

Fertility:

Cooperator: Hansen Farms

Row Spacing: 40”

County Extension Agent: Greg Baker

Plot Size: 1.06 acre

Planting Date: March 1, 2023

Harvest Date:

Brand	Hybrid	Moisture		Test Weight		Yield[1]	
		%		lb/bu		lb/A	
Dekalb	DKS 44-07	15.6		61.0		7151.8	a[2]
Dekalb	DKS 38-16	15.1		57.7		7147.8	a
DynaGro	M67GB87	14.8		56.7		6984.8	a
Dekalb	DKS 54-07	15.6		58.3		6538.6	b
DynaGro	M71GR91	15.6		60.0		6178.3	c
Mean		15.3		58.7		6800	
P>F		0.1139		0.2752		<0.0001	
LSD (0.05)		NS		NS		207	
CV (%)		3.31		4.24		6.12	

[1]Yields standardized to 14% moisture content.

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

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