2022 Texas A&M AgriLife Bushland Forage Sorghum Silage Trial

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The 2022 Texas A&M AgriLife Research and Extension Forage Sorghum Silage Trial consisted of 76 sorghum hybrids including forage sorghum (n=55), sorghum-sudangrass (n=16), and grain sorghum (n=5) hybrids evaluated within a production forage sorghum field under center pivot irrigation. One millet hybrid was entered and compared to sorghum hybrids. Two grain sorghum hybrids (DKS 37-07 and P84G62) serve as long-term grain production checks. Corn checks provide a direct comparison between the forage production potential in the same production environment. Evaluated hybrids were submitted by seed companies on a per fee basis except for the grain sorghum and corn hybrid checks.

The 2022 season started with temperatures reaching 110°F and high winds, but timely in-season rainfall events at rates greater than 1.0 inch during July and August, and moderate August temperatures (Fig. 1) resulted in above average yields for many hybrids. The average yield was 28.7 tons/ac (65% Moisture), and yields ranged from 22.1 to 38.6 tons/acre (65% moisture).

Agronomic Information

Cooperator: Michael Menke
Previous Crop: Wheat hay
Planting Date: June 15, 2022
Forage Sorghum Seeding Rate: 80,000 seeds/acre
Corn Silage Seeding Rate: 32,000 seeds/acre
Fertilizer: Manure pre-wheat; Pre-plant strip-tilled 215 lbs. N/ac (5/17/2022)
Herbicide: Pre-plant Outlook (dimethenamid-P) 1.5 pts/ac plus Atrazine 2 lbs./ac
Post-emergent Warrant (acetochlor) 14 oz/ac plus Atrazine 2 lbs./ac (7-7-2022)
Insecticide: Sivanto Prime 4 oz/ac with pre-plant strip-tilled N
Sugarcane Aphids (SCAs) identified 8/16/2022
Sivanto Prime 14 oz/ac plus Vantacor 2 oz/ac aerially at 5 gpa (8/31/2022)
In-season Irrigation: ~13.2 inches
In-season Precipitation: 9.35 inches
Plot size: Four, 30-inch rows by 25 ft. (30 ft planted)

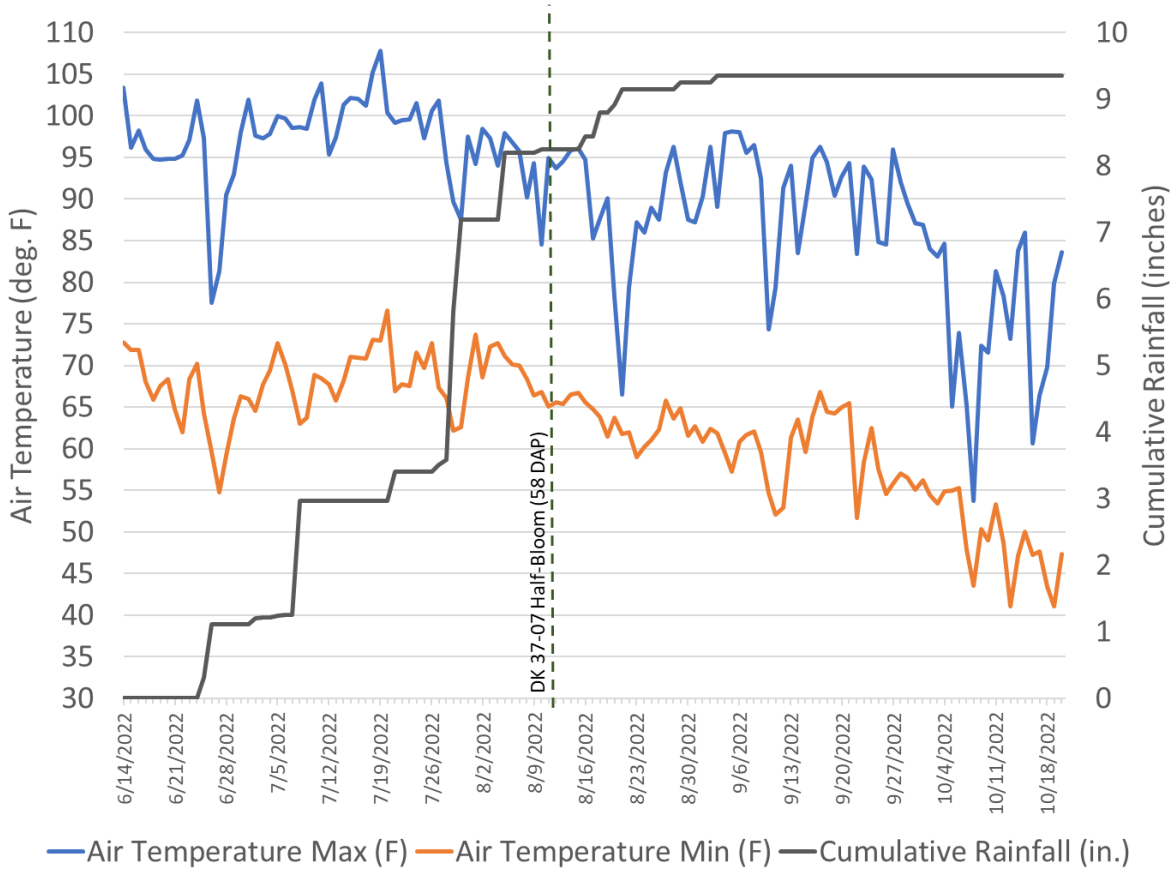

Figure 1. Daily temperatures and rainfall from panting to the final harvest and the half-bloom date of the earliest hybrid in the forage sorghum trial.

Hybrids were blocked according to their marketed maturity class so that forages within each block could be mechanically harvested for yield when grain reached soft dough. Moderate temperatures during August resulted in variable dry down rates for hybrids of the same maturity class with some hybrids drying down rapidly while dry down was very slow for other hybrids. Photoperiod sensitive hybrids were all harvested on the last sampling date (October 20, 2022). Uniform sub-samples were collected for dry matter and nutritional composition from all plots. A sub-sample of the chopped forage was dried at 221°F (105°C) to determine harvest moisture. All reported yields are corrected to 65% moisture and on a dry matter basis. A 600-gram sample was submitted to Dairy One Forage Laboratory at Ithaca, NY for forage nutritional analyses using near infrared reflectance spectroscopy (NIR). Forage constituents are reported on a dry matter (DM) basis (Tables 2 and 3).

Forage Nutritive Analyses Defined:

CP: Crude Protein

NDF: Neutral Detergent Fiber; cell wall fraction of the forage.

Lignin: A structural material for cell walls and thus important for plant standability. Lignin is almost completely indigestible.

Starch: A carbohydrate primarily located in the grain. Starch availability is a function of harvest timing and berry processing.
WSC: A measurement of simple sugars (glucose, fructose, and sucrose) and fructans. WSCs accumulate in the stalk until anthesis. After anthesis, they remobilize to the grain. WSCs are important for fermentation as they are used during the development of lactic acid.
IVTD30: In Vitro True Digestibility (30 hour run). Provides an estimate of forage disappearance in the digestive tract.
NDFD30: NDF digestibility; estimated fiber digestibility after 30 hours.
TDN: % Total Digestible Nutrients representing digestible protein, digestible crude fiber, digestible nitrogen free extract, and digestible fat.
tons TDN produced per acre: Represents the energy production under the evaluated management and environmental conditions.
Calculated as % TDN x forage yield (tons/acre; DM basis) = tons of TDN produced per acre

Sugarcane aphids (SCA) were identified on August 16, 2022. All plots were scouted for SCA infestation and treatments were applied based on the Texas A&M AgriLife SCA threshold for forage sorghums of 50 or more aphids on 20% of the plants (https://acsess.onlinelibrary.wiley.com/doi/epdf/10.1002/agj2.20751). Sivanto Prime was applied at a max rate (14 oz/ac) aerially on August 31, 2022, which was above the labeled Section 2(ee) rate; however, this was the labeled rate for aphids. There was no significant damage from SCAs in the 2022 trial because of a timely insecticide application. Grain yields for requested hybrids (Table 4) were collected following forage harvest and once grain reached physiological maturity. Grain yield data is annually submitted to the USDA-Farm Service Agency (FSA) to update the table of forage sorghum hybrids eligible for loan deficiency payment. Grain production can contribute significantly to forage yield and nutritional profiles, but the desired grain quantity varies depending on end-user-goals. Harvest Index, pound of grain per pound total biomass (forage + grain) provides an indication of the grain fraction (Table 4) of the total biomass yield.

Statistical analyses were completed for sorghum hybrids using SAS 9.4. Adjusted least significant differences for multiple comparisons were determined using Tukey's Honest Significant Difference post hoc test. Effects and comparisons were determined significant at the 0.05 probability level. The discussion addresses broad averages for types of forage sorghums, grain sorghums, and sorghum-sudangrass hybrids evaluated in the 2022 trial as a fresh forage but managed as a silage. It is not recommended that hybrid selection be made based on marketed forage type. While the marketed forage types provide an indication of potential quality and nutritive value, actual parameters vary for hybrids of the same forage type, and there is often an overlap among hybrids in these type categories. Because nutrient requirements vary between livestock class, evaluated parameters provide a broad comparison of forage nutritive value in the respective production environment.

Table 1. 2022 Texas A&M AgriLife Bushland Forage Sorghum Silage Trial mean yield. Male Sterile hybrids were pollinated by neighboring hybrids in the trial. FS=forage sorghum, SS=Sorghum Sudan, GS=Grain sorghum, PS=Photoperiod Sensitive

Hybrid Characteristics									Days to Half-Bloom (HB), Harvest Date, Height, Lodging, Bird Damage, Moisture, and Yield								
Entry	HYBRID	COMPANY	TYPE	Advertised MATURITY	SCA TOLERANT	BMR	BRACHYTIC	MALE STERILE	Days to HB†	Half Bloom Date	Harvest Date	Height at Harvest (ft)	% Lodge	% Bird Damage§	% Moist. at Harvest	Yield (tons/ac) DM Basis	Yield (tons/ac) 65% Moisture
1	ADV F7232	Advanta	FS	Med	No	Yes	Yes	No	94	9/17/2022	10/19/2022	6.1	0	.	73.5	10.5	30.0 ± 2.3
2	ADV F7424	Advanta	FS	Med-Late	Yes	Yes	Yes	No	96	9/18/2022	10/19/2022	7.3	0	.	74.7	9.8	28.0 ± 1.6
3	ADV F8322	Advanta	FS	Med	Yes	No	No	No	94	9/17/2022	10/19/2022	8.2	0	.	71.6	11.3	32.3 ± 2.5
4	ADV F8484IG	Advanta	FS	Med-Late	No	No	Yes	No	96	9/18/2022	10/19/2022	6.9	0	.	73.5	10.2	29.2 ± 2.8
5	ADV S6520	Advanta	SS	Late	Yes	Yes	No	No	97	9/20/2022	10/20/2022	11.2	3	.	72.3	11.1	31.8 ± 1.8
6	AF7401	Advanta	FS	Med-Late	No	Yes	Yes	No	96	9/18/2022	10/20/2022	6.4	0	.	73.7	9.9	28.4 ± 0.1
7	5FS Star	DynaGro	FS	Early	No	No	No	No	71	8/24/2022	9/29/2022	8.8	0	.	68.8	10.2	29.1 ± 1.8
8	Danny Boy II BMR	DynaGro	SS	PS	No	Yes	No	No	123	10/16/2022	10/20/2022	10.5	7	.	75.0	11.2	31.9 ± 1.0
9	Dynagraze II	DynaGro	SS	Med-Early	No	No	No	No	65	8/18/2022	9/29/2022	9.3	0	.	68.3	11.1	31.6 ± 2.0
10	Dynagraze II BMR	DynaGro	SS	Med-Early	No	Yes	No	No	70	8/24/2022	9/29/2022	8.9	3	.	71.0	10.1	28.9 ± 0.4
11	F71FS72 BMR	DynaGro	FS	Early	No	Yes	No	No	68	8/22/2022	9/29/2022	6.7	0	25	69.8	7.7	22.1 ± 2.3
12	F72FS05	DynaGro	FS	Med-Early	No	No	No	No	92	9/14/2022	10/18/2022	8.4	3	.	71.7	12.6	35.9 ± 1.8
13	F72FS25 BMR	DynaGro	FS	Med	No	Yes	Yes	No	98	9/21/2022	10/19/2022	6.3	0	.	73.0	9.6	27.3 ± 1.7
14	F74FS23 BMR	DynaGro	FS	Med	No	Yes	No	No	94	9/17/2022	10/19/2022	9.5	40	.	73.9	10.1	28.8 ± 2.8
15	F74FS72 BMR	DynaGro	FS	Med	No	Yes	Yes	No	89	9/12/2022	10/19/2022	6.3	0	.	73.8	9.3	26.7 ± 0.9
16	F75FS13	DynaGro	FS	Med	No	No	No	No	70	8/24/2022	10/4/2022	9.5	0	.	68.9	10.2	29.2 ± 2.5
17	Fullgraze II	DynaGro	FS	Med-Late	No	No	No	No	96	9/19/2022	10/20/2022	14.0	0	.	64.9	13.0	35.8 ± 0.7
18	Fullgraze II BMR	DynaGro	SS	Med-Late	No	Yes	No	No	98	9/21/2022	10/20/2022	12.6	0	.	68.5	11.6	33.1 ± 3.4
19	Super Sile 20	DynaGro	FS	Med-Late	No	No	No	No	93	9/16/2022	10/20/2022	11.2	23	.	69.6	12.4	35.4 ± 2.5
20	Super Sile 30	DynaGro	FS	Med-Early	No	No	No	No	93	9/16/2022	10/18/2022	9.5	17	.	71.8	11.6	33.2 ± 0.9
21	Super Sweet 10	DynaGro	SS	Med	No	No	No	No	66	8/20/2022	10/4/2022	8.9	0	.	68.2	9.2	26.2 ± 1.5
22	PEARL	MOJO Seed	FS	Med-Early	Yes	No	Yes	No	72	8/26/2022	9/29/2022	7.4	7	50	69.7	9.7	27.8 ± 2.8
23	x-22029	MOJO Seed	FS	Med-Early	Yes	No	No	No	85	9/8/2022	9/29/2022	6.9	0	50	71.1	8.7	25.0 ± 2.3
24	x-22077	MOJO Seed	FS	Med-Early	Yes	No	No	No	77	8/30/2022	10/5/2022	7.6	3	50	70.1	8.6	24.7 ± 3.0
25	x-22201	MOJO Seed	FS	Med-Early	Yes	No	No	No	78	9/1/2022	9/29/2022	7.3	0	42	69.8	7.7	22.0 ± 0.5
26	x-22202	MOJO Seed	FS	Med-Late	Yes	No	No	No	96	9/18/2022	10/20/2022	8.5	0	38	71.9	10.3	26.2 ± 3.9
27	F24	Richardson Seeds	FS	Early	Yes	No	Yes	No	73	8/27/2022	9/29/2022	6.0	0	.	69.4	7.5	21.4 ± 2.9
28	F251	Richardson Seeds	FS	Early	Yes	No	No	No	65	8/18/2022	9/29/2022	8.0	0	.	69.3	9.6	27.6 ± 0.9
29	F27	Richardson Seeds	FS	Med	No	No	No	No	95	9/18/2022	10/19/2022	8.6	0	.	70.8	11.9	33.9 ± 3.6
30	F382	Richardson Seeds	FS	Early	Yes	Yes	No	No	73	8/27/2022	9/29/2022	7.9	0	.	69.2	8.2	23.3 ± 0.8
31	F429	Richardson Seeds	FS	Med-Late	No	Yes	No	No	96	9/18/2022	10/20/2022	8.6	0	.	71.2	11.2	31.9 ± 2.9
32	F430	Richardson Seeds	FS	Late	Yes	Yes	No	Yes	98	9/21/2022	10/20/2022	11.2	13	80	73.2	10.3	29.5 ± 3.3
33	F431	Richardson Seeds	FS	Early	Yes	Yes	Yes	No	73	8/27/2022	9/29/2022	5.5	0	.	70.9	9.2	26.4 ± 1.4
34	F465	Richardson Seeds	FS	Med	Yes	No	No	Yes	74	8/27/2022	10/9/2022	8.3	0	25	68.4	9.1	25.9 ± 4.4
35	S425	Richardson Seeds	SS	Late	Yes	No	No	No	96	9/19/2022	10/20/2022	11.2	0	.	69.3	10.9	31.3 ± 3.5
36	S470	Richardson Seeds	SS	PS	Yes	No	No	No	.	.	10/20/2022	11.8	0	.	74.2	11.9	34.0 ± 1.3
37	S473	Richardson Seeds	SS	PS	Yes	Yes	No	No	.	.	10/19/2022	11.4	0	.	72.7	10.2	29.1 ± 1.7
38	S60	Richardson Seeds	SS	Med-Early	Yes	Yes	No	No	72	8/26/2022	9/29/2022	8.9	0	80	72.2	8.5	24.4 ± 0.8
39	S72	Richardson Seeds	SS	Late	Yes	Yes	No	No	103	9/25/2022	10/20/2022	11.3	5	.	72.7	9.7	27.7 ± 1.1
40	NK300	S&W Seed	FS	Med-Early	No	No	No	No	91	9/14/2022	10/18/2022	7.8	3	.	71.5	11.1	31.8 ± 4.3
41	SP1727 BMR	S&W Seed	FS	Med	No	Yes	No	Yes	79	9/1/2022	10/4/2022	9.2	0	50	71.6	9.6	27.3 ± 2.0
42	SP1792	S&W Seed	FS	Med	No	No	No	Yes	67	8/21/2022	10/9/2022	8.4	0	.	66.1	11.1	31.6 ± 2.3
43	SP2774 BMR	S&W Seed	FS	Med-Early	No	Yes	No	No	68	8/22/2022	9/29/2022	9.4	3	57	69.8	9.6	27.5 ± 2.3
44	SP3904 BD BMR	S&W Seed	FS	Med-Late	No	Yes	Yes	No	95	9/18/2022	10/20/2022	6.5	0	.	73.2	8.2	23.4 ± 2.8
45	SP3905 BD BMR	S&W Seed	FS	Med-Early	No	Yes	Yes	No	69	8/23/2022	9/29/2022	6.6	0	.	71.7	8.5	24.3 ± 2.2

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Hybrid Characteristics									Days to Half-Bloom (HB), Harvest Date, Height, Lodging, Bird Damage, Moisture, and Yield								
Entry	HYBRID	COMPANY	TYPE	Advertised MATURITY	SCA TOLERANT	BMR	BRACHYTIC	MALE STERILE	Days to HB†	Half Bloom Date	Harvest Date	Height at Harvest (ft)	% Lodge	% Bird Damage§	% Moist. at Harvest	Yield (tons/ac) DM Basis	Yield (tons/ac) 65% Moisture
46	SPBD702	S&W Seed	FS	Early	No	Yes	Yes	No	90	9/12/2022	9/29/2022	7.2	0	.	75.6	7.6	21.9 ± 2.4
47	SPBD703	S&W Seed	FS	Early	No	Yes	Yes	No	90	9/13/2022	9/29/2022	8.2	0	.	77.5	9.2	26.4 ± 4.3
48	SS405	S&W Seed	FS	Med-Late	No	No	No	No	96	9/19/2022	10/20/2022	13.6	0	63	68.2	12.6	36.1 ± 5.5
49	SWFS8802	S&W Seed	FS	Med-Early	No	Yes	No	No	92	9/15/2022	10/18/2022	6.2	0	.	70.4	11.8	33.7 ± 1.4
50	SWGS2042	S&W Seed	GS	Med	Yes	No	Yes	No	70	8/24/2022	10/4/2022	5.1	0	.	66.7	9.6	27.5 ± 1.9
51	X5061038	Scott Seed Co.	FS	Med	No	Yes	Yes	No	92	9/14/2022	10/19/2022	6.9	0	.	73.8	9.2	26.2 ± 3.4
52	X50665	Scott Seed Co.	FS	Med	No	Yes	Yes	No	90	9/13/2022	10/19/2022	5.9	0	.	74.0	9.2	26.2 ± 0.9
53	X52053	Scott Seed Co.	FS	Med	No	No	Yes	No	76	8/30/2022	10/4/2022	5.8	0	.	68.9	10.1	28.8 ± 0.0
54	X52242	Scott Seed Co.	FS	Med	Yes	No	No	No	99	9/22/2022	10/19/2022	9.6	0	38	72.5	10.8	30.9 ± 1.9
55	X54243	Scott Seed Co.	SS	Med-Late	Yes	No	No	Yes	99	9/22/2022	10/20/2022	13.5	0	.	65.7	13.5	38.6 ± 2.4
56	X56023	Scott Seed Co.	FS	Med	No	Yes	No	No	93	9/16/2022	10/18/2022	10.6	17	.	74.7	10.6	30.4 ± 3.3
57	X56065	Scott Seed Co.	FS	Med	No	Yes	Yes	No	95	9/18/2022	10/19/2022	7.6	0	25	74.5	9.3	26.5 ± 4.5
58	Grazex BMR 801	Sharp Brothers Seed	SS	Med	No	Yes	No	No	69	8/22/2022	10/4/2022	9.8	0	50	67.4	9.1	25.9 ± 1.0
59	Grazex III	Sharp Brothers Seed	SS	Med	No	No	No	No	73	8/27/2022	10/4/2022	10.2	0	50	68.1	8.9	25.3 ± 0.1
60	XC112	Sharp Brothers Seed	FS	Med	No	No	No	Yes	80	9/3/2022	10/4/2022	8.5	0	.	69.6	9.3	26.5 ± 0.7
61	XV400	Sharp Brothers Seed	FS	Med	No	No	No	Yes	70	8/24/2022	10/4/2022	7.8	0	.	68.2	8.4	24.1 ± 1.3
62	Hybrid Pearl Millet	Supra International	Millet	PS	No	No	No	No	77	8/31/2022	10/20/2022	11.5	7	.	74.7	12.6	36.1 ± 1.7
63	Hybrid Sorghum	Supra International	FS	Med	No	No	No		94	9/17/2022	10/19/2022	12.9	27	.	70.8	13.1	37.4 ± 1.2
64	Hybrid Sorghum Sudan Grass	Supra International	SS	Med	No	No	No	No	95	9/18/2022	10/19/2022	11.3	0	.	70.0	11.4	32.5 ± 4.2
65	2-Way AT	Warner Seeds	FS	Med-Late	Yes	No	No	No	94	9/17/2022	10/20/2022	9.6	0	.	68.2	10.7	30.5 ± 4.3
66	W7051	Warner Seeds	GS	Med-Early	Yes	No	No	No	72	8/26/2022	9/29/2022	6.0	0	.	70.2	8.8	25.3 ± 0.6
67	W7706-W	Warner Seeds	GS	Med-Early	Yes	No	No	No	75	8/28/2022	9/29/2022	6.7	0	.	71.5	8.8	25.2 ± 2.6
68	Integra 31F65	Wilbur-Ellis	SS	Med	No	Yes	Yes	No	86	9/9/2022	10/18/2022	9.6	12	65	72.0	9.4	27.0 ± 1.9
69	Integra 33F70	Wilbur-Ellis	FS	Late	No	Yes	Yes	No	96	9/19/2022	10/19/2022	6.0	0	.	73.9	9.5	27.2 ± 2.0
70	Integra 34F95	Wilbur-Ellis	FS	Med	No	Yes	No	Yes	69	8/23/2022	9/29/2022	8.4	3	63	69.0	10.1	28.8 ± 1.3
71	Integra 38F80	Wilbur-Ellis	FS	Late	Yes	No	No	No	90	9/13/2022	9/29/2022	9.1	0	.	73.7	11.1	31.8 ± 3.1
72	CP 3501 IQ	Winfield United	FS	Med	No	No	No	No	84	9/6/2022	10/4/2022	8.5	0	83	72.2	8.7	24.8 ± 0.5
73	CP 3681 AT	Winfield United	FS	Med-Late	Yes	No	No	No	95	9/18/2022	10/20/2022	8.2	0	.	69.4	11.1	31.9 ± 1.9
74	CP BMR 3531	Winfield United	FS	Med	No	Yes	Yes	No	96	9/19/2022	10/19/2022	6.1	0	.	74.8	8.1	23.1 ± 1.6
75	CP BMR 3731	Winfield United	FS	Med-Late	No	Yes	Yes	No	95	9/18/2022	10/20/2022	6.1	0	.	71.7	9.1	25.9 ± 0.8
76	84G62	TAMU CHECK	GS	Early	No				62	8/16/2022	9/29/2022	4.7	0	.	64.3	9.9	28.2 ± 3.0
77	DKS 37-07	TAMU CHECK	GS	Early	Yes				58	8/12/2022	9/29/2022	4.5	0	.	62.7	9.0	25.7 ± 3.0
78	DKC70-64	TAMU CHECK	Corn						.	.	10/20/2022	8.5	0	.	55.9	11.5	33.0 ± 3.8
79	P1548	TAMU CHECK	Corn						.	.	10/20/2022	7.6	0	.	53.2	12.6	35.9 ± 2.8
80	1366Q	TAMU CHECK	Corn						.	.	10/20/2022	7.8	0	.	53.8	11.3	32.2 ± 1.6

† If HB date is not reported, the respective hybrid did not reach HB prior to the last harvest date. §Estimated % bird damage is the average of visual obersavtions based on % head damage. Bird damage was not uniform across the field, but specified hybrids were damaged across all reps. *Mean and statistical evaluations do not include corn hybrids. Forage characteristics and advertised maturity are provided by developer/company at the time of entry.

Mean*	28.7
CV (%)	8.7
p-val	<0.0001
LSD	4.3

Table 2. 2022 Texas A&M AgriLife Bushland Forage Sorghum Silage Trial forage nutritive value. Male Sterile hybrids were pollinated by neighboring hybrids in the trial. FS=forage sorghum, SS=Sorghum Sudan, GS=Grain sorghum, PS=Photoperiod Sensitive

Hybrid Characteristics										Nutrient Composition (DM Basis)									
Entry	HYBRID	COMPANY	TYPE	Advertised Maturity	SCA Tol.	BMR	Brach-ytic	Male Sterile	Days to HB†	% Crude Protein	% NDF	% NDFD30	% Lignin	% NFC	% Starch	% WSC	% TDN	tons TDN/ac	Yield (tons/ac) DM Basis
1	ADV F7232	Advanta	FS	Med	No	Yes	Yes	No	94	8.6	50.2	53.7	4.3	30.2	18.4	11.1	66.0	6.9	10.5
2	ADV F7424	Advanta	FS	Med-Late	Yes	Yes	Yes	No	96	7.9	48.1	52.3	3.7	33.2	20.7	11.2	66.7	6.5	9.8
3	ADV F8322	Advanta	FS	Med	Yes	No	No	No	94	7.5	50.8	41.3	5.0	32.1	20.6	9.3	60.3	6.8	11.3
4	ADV F8484IG	Advanta	FS	Med-Late	No	No	Yes	No	96	7.5	52.7	43.7	5.3	29.7	19.4	9.9	59.7	6.1	10.2
5	ADV S6520	Advanta	SS	Late	Yes	Yes	No	No	97	7.6	58.5	50.7	5.6	21.8	1.4	19.3	58.0	6.5	11.1
6	AF7401	Advanta	FS	Med-Late	No	Yes	Yes	No	96	8.0	51.7	51.0	4.4	29.3	14.3	13.2	64.0	6.4	9.9
7	5FS Star	DynaGro	FS	Early	No	No	No	No	71	8.6	43.2	41.0	4.6	38.0	20.3	16.6	62.0	6.3	10.2
8	Danny Boy II BMR	DynaGro	SS	PS	No	Yes	No	No	123	6.8	59.2	49.0	5.4	21.8	0.2	21.4	57.7	6.4	11.2
9	Dynagraze II	DynaGro	SS	Med-Early	No	No	No	No	65	9.0	48.0	39.0	5.4	32.2	16.6	14.6	58.0	6.4	11.1
10	Dynagraze II BMR	DynaGro	SS	Med-Early	No	Yes	No	No	70	7.9	56.1	43.7	5.0	25.5	10.6	14.5	57.3	5.8	10.1
11	F71FS72 BMR	DynaGro	FS	Early	No	Yes	No	No	68	9.3	37.2	43.3	4.0	43.5	28.2	11.5	68.0	5.3	7.7
12	F72FS05	DynaGro	FS	Med-Early	No	No	No	No	92	7.5	51.8	42.3	5.3	31.2	18.5	11.7	60.0	7.5	12.6
13	F72FS25 BMR	DynaGro	FS	Med	No	Yes	Yes	No	98	8.4	47.6	52.0	4.0	33.1	21.3	11.0	66.3	6.3	9.6
14	F74FS23 BMR	DynaGro	FS	Med	No	Yes	No	No	94	7.5	46.0	51.7	4.2	33.0	18.3	13.7	63.3	6.4	10.1
15	F74FS72 BMR	DynaGro	FS	Med	No	Yes	Yes	No	89	8.5	50.5	54.7	4.2	29.2	17.1	10.4	65.0	6.1	9.3
16	F75FS13	DynaGro	FS	Med	No	No	No	No	70	7.9	42.2	44.0	4.7	39.2	21.8	16.0	64.3	6.6	10.2
17	Fullgraze II	DynaGro	FS	Med-Late	No	No	No	No	96	6.3	62.3	42.3	5.9	21.2	2.8	18.2	53.3	6.7	12.5
18	Fullgraze II BMR	DynaGro	SS	Med-Late	No	Yes	No	No	98	7.2	55.2	50.0	4.7	26.3	8.3	17.1	61.7	7.2	11.6
19	Super Sile 20	DynaGro	FS	Med-Late	No	No	No	No	93	7.5	51.3	43.7	5.1	31.3	18.9	11.1	59.3	7.3	12.4
20	Super Sile 30	DynaGro	FS	Med-Early	No	No	No	No	93	6.7	51.3	39.7	5.2	31.6	14.3	15.7	57.7	6.7	11.6
21	Super Sweet 10	DynaGro	SS	Med	No	No	No	No	66	8.6	47.8	42.3	5.6	33.1	16.7	15.1	60.7	5.6	9.2
22	PEARL	MOJO Seed	FS	Med-Early	Yes	No	Yes	No	72	8.2	44.9	45.0	4.4	36.4	23.9	10.9	63.7	6.2	9.7
23	x-22029	MOJO Seed	FS	Med-Early	Yes	No	No	No	85	8.8	45.7	46.7	4.2	34.3	21.5	12.3	64.0	5.6	8.7
24	x-22077	MOJO Seed	FS	Med-Early	Yes	No	No	No	77	7.7	48.3	51.7	4.2	32.5	12.2	19.4	64.3	5.6	8.6
25	x-22201	MOJO Seed	FS	Med-Early	Yes	No	No	No	78	8.6	47.0	47.7	4.1	33.6	20.7	11.6	64.7	5.0	7.7
26	x-22202	MOJO Seed	FS	Med-Late	Yes	No	No	No	96	7.2	54.8	46.7	5.0	27.3	17.0	8.8	60.3	5.5	9.2
27	F24	Richardson Seeds	FS	Early	Yes	No	Yes	No	73	8.9	38.5	39.7	4.4	43.2	31.1	5.5	66.0	4.9	7.5
28	F251	Richardson Seeds	FS	Early	Yes	No	No	No	65	8.6	41.7	41.0	4.2	40.5	26.9	10.8	63.7	6.1	9.6
29	F27	Richardson Seeds	FS	Med	No	No	No	No	95	7.9	47.1	42.3	4.9	35.1	22.3	10.6	62.3	7.4	11.9
30	F382	Richardson Seeds	FS	Early	Yes	Yes	No	No	73	8.2	43.1	44.3	4.0	39.7	26.7	9.4	65.7	5.4	8.2
31	F429	Richardson Seeds	FS	Med-Late	No	Yes	No	No	96	7.3	53.0	50.0	4.5	29.7	20.1	8.6	64.0	7.1	11.2
32	F430	Richardson Seeds	FS	Late	Yes	Yes	No	Yes	98	6.2	59.1	49.7	5.5	24.1	2.2	20.9	59.0	6.1	10.3
33	F431	Richardson Seeds	FS	Early	Yes	Yes	Yes	No	73	9.5	43.7	48.3	4.0	36.7	26.8	6.2	67.7	6.3	9.2
34	F465	Richardson Seeds	FS	Med	Yes	No	No	Yes	74	8.3	40.9	45.7	4.5	40.9	24.4	13.4	67.0	6.1	9.1
35	S425	Richardson Seeds	SS	Late	Yes	No	No	No	96	6.7	55.2	46.3	6.1	27.5	4.2	22.6	58.3	6.4	10.9
36	S470	Richardson Seeds	SS	PS	Yes	No	No	No	.	6.4	60.4	43.0	6.2	22.1	0.9	21.0	53.3	6.4	11.9
37	S473	Richardson Seeds	SS	PS	Yes	Yes	No	No	.	6.3	59.5	47.3	4.9	23.4	1.2	22.2	58.0	5.9	10.2
38	S60	Richardson Seeds	SS	Med-Early	Yes	Yes	No	No	72	7.7	52.3	52.0	4.5	28.9	6.4	21.5	63.7	5.4	8.5
39	S72	Richardson Seeds	SS	Late	Yes	Yes	No	No	103	7.0	56.2	44.3	5.6	25.9	0.4	25.4	56.3	5.5	9.7
40	NK300	S&W Seed	FS	Med-Early	No	No	No	No	91	7.8	48.8	40.7	4.6	34.1	25.1	7.4	60.3	6.7	11.1
41	SP1727 BMR	S&W Seed	FS	Med	No	Yes	No	Yes	79	7.7	47.8	53.0	4.5	32.8	5.7	26.0	65.3	6.3	9.6
42	SP1792	S&W Seed	FS	Med	No	No	No	Yes	67	8.3	38.4	40.3	5.0	43.6	24.9	14.9	66.0	7.3	11.1
43	SP2774 BMR	S&W Seed	FS	Med-Early	No	Yes	No	No	68	7.8	51.3	44.3	5.3	30.3	17.1	12.8	60.7	5.8	9.6

Table 2. 2022 Texas A&M AgriLife Bushland Forage Sorghum Silage Trial forage nutritive value. Male Sterile hybrids were pollinated by neighboring hybrids in the trial. FS=forage sorghum, SS=Sorghum Sudan, GS=Grain sorghum, PS=Photoperiod Sensitive

Hybrid Characteristics										Nutrient Composition (DM Basis)									
Entry	HYBRID	COMPANY	TYPE	Advertised Maturity	SCA Tol.	BMR	Brach-ytic	Male Sterile	Days to HB†	% Crude Protein	% NDF	% NDFD30	% Lignin	% NFC	% Starch	% WSC	% TDN	tons TDN/ac	Yield (tons/ac) DM Basis
44	SP3904 BD BMR	S&W Seed	FS	Med-Late	No	Yes	Yes	No	95	8.5	50.8	52.7	3.6	29.4	21.3	5.1	64.7	5.3	8.2
45	SP3905 BD BMR	S&W Seed	FS	Med-Early	No	Yes	Yes	No	69	9.1	40.1	47.0	4.1	40.4	27.0	9.9	68.0	5.8	8.5
46	SPBD702	S&W Seed	FS	Early	No	Yes	Yes	No	90	9.4	52.0	55.7	3.7	26.7	6.2	19.6	65.7	5.0	7.6
47	SPBD703	S&W Seed	FS	Early	No	Yes	Yes	No	90	8.3	55.2	54.3	4.1	24.5	4.6	18.9	62.7	5.8	9.2
48	SS405	S&W Seed	FS	Med-Late	No	No	No	No	96	6.9	53.4	43.0	5.3	30.3	19.3	8.8	59.0	7.5	12.6
49	SWFS8802	S&W Seed	FS	Med-Early	No	Yes	No	No	92	8.5	51.1	43.7	5.0	30.5	21.9	7.1	60.3	7.1	11.8
50	SWGS2042	S&W Seed	GS	Med	Yes	No	Yes	No	70	8.9	37.8	41.7	4.5	44.3	30.6	7.1	67.3	6.5	9.6
51	X5061038	Scott Seed Co.	FS	Med	No	Yes	Yes	No	92	8.2	45.9	48.7	4.6	36.3	26.0	7.0	66.3	6.1	9.2
52	X50665	Scott Seed Co.	FS	Med	No	Yes	Yes	No	90	7.9	48.9	48.7	4.8	32.2	24.1	5.8	63.7	5.8	9.2
53	X52053	Scott Seed Co.	FS	Med	No	No	Yes	No	76	9.2	44.8	42.7	4.8	36.3	25.3	8.3	63.0	6.3	10.1
54	X52242	Scott Seed Co.	FS	Med	Yes	No	No	No	99	7.0	54.0	46.3	5.0	28.2	11.5	15.7	60.0	6.5	10.8
55	X54243	Scott Seed Co.	SS	Med-Late	Yes	No	No	Yes	99	6.1	62.5	43.0	6.3	21.7	5.4	15.7	54.0	7.3	13.5
56	X56023	Scott Seed Co.	FS	Med	No	Yes	No	No	93	7.9	47.8	48.7	4.3	33.1	11.6	20.5	63.3	6.7	10.6
57	X56065	Scott Seed Co.	FS	Med	No	Yes	Yes	No	95	8.4	45.8	50.3	3.9	34.7	20.3	13.1	66.0	6.1	9.3
58	Grazex BMR 801	Sharp Brothers Seed	SS	Med	No	Yes	No	No	69	9.0	48.0	44.0	4.6	32.4	15.6	16.2	61.0	5.5	9.1
59	Grazex III	Sharp Brothers Seed	SS	Med	No	No	No	No	73	8.7	45.6	44.0	4.7	35.4	20.8	11.8	63.3	5.6	8.9
60	XC112	Sharp Brothers Seed	FS	Med	No	No	No	Yes	80	8.0	41.9	42.7	5.0	40.0	24.1	13.5	64.7	6.0	9.3
61	XV400	Sharp Brothers Seed	FS	Med	No	No	No	Yes	70	8.7	41.0	43.3	4.6	40.2	24.8	13.0	65.7	5.5	8.4
62	Hybrid Pearl Millet	Supra International	Millet	PS	No	No	No	No	77	7.0	59.7	38.3	6.3	20.3	0.6	16.2	48.0	6.1	12.6
63	Hybrid Sorghum	Supra International	FS	Med	No	No	No	No	94	5.8	46.9	47.7	5.2	37.1	9.0	27.8	64.3	8.4	13.1
64	Hybrid Sorghum Sudan	Supra International	SS	Med	No	No	No	No	95	6.4	51.1	45.7	5.3	31.9	4.1	27.0	59.7	6.8	11.4
65	2-Way AT	Warner Seeds	FS	Med-Late	Yes	No	No	No	94	7.5	53.8	44.0	5.3	28.1	17.7	9.9	58.7	6.3	10.7
66	W7051	Warner Seeds	GS	Med-Early	Yes	No	No	No	72	9.1	43.1	42.0	3.9	37.8	26.7	8.0	63.7	5.6	8.8
67	W7706-W	Warner Seeds	GS	Med-Early	Yes	No	No	No	75	9.2	43.0	43.3	4.0	37.6	26.2	8.2	64.3	5.7	8.8
68	Integra 31F65	Wilbur-Ellis	SS	Med	No	Yes	Yes	No	86	7.5	50.1	48.7	4.8	31.1	10.4	19.9	62.0	5.9	9.4
69	Integra 33F70	Wilbur-Ellis	FS	Late	No	Yes	Yes	No	96	8.0	48.3	49.0	4.6	32.9	23.2	7.3	64.3	6.1	9.5
70	Integra 34F95	Wilbur-Ellis	FS	Med	No	Yes	No	Yes	69	8.7	42.0	50.3	3.9	38.7	18.6	19.3	67.3	6.8	10.1
71	Integra 38F80	Wilbur-Ellis	FS	Late	Yes	No	No	No	90	8.1	54.2	47.3	5.0	26.9	8.2	18.1	60.0	6.7	11.1
72	CP 3501 IQ	Winfield United	FS	Med	No	No	No	No	84	8.4	43.0	47.3	4.1	37.8	17.9	16.7	66.3	5.7	8.7
73	CP 3681 AT	Winfield United	FS	Med-Late	Yes	No	No	No	95	7.4	54.6	43.0	5.6	27.8	16.3	9.3	57.7	6.4	11.1
74	CP BMR 3531	Winfield United	FS	Med	No	Yes	Yes	No	96	8.5	50.0	51.7	4.5	29.5	16.6	11.3	64.3	5.2	8.1
75	CP BMR 3731	Winfield United	FS	Med-Late	No	Yes	Yes	No	95	8.4	49.0	48.3	4.4	31.2	25.0	3.5	62.7	5.7	9.1
76	84G62	TAMU CHECK	GS	Early	No				62	8.7	36.3	39.7	4.1	45.9	33.7	4.9	67.3	6.7	9.9
77	DKS 37-07	TAMU CHECK	GS	Early	Yes				58	9.2	33.8	35.7	4.5	48.4	35.2	4.9	68.0	6.1	9.0
78	DKC70-64	TAMU CHECK	Corn						.	8.3	39.6	46.0	3.3	44.2	33.5	7.4	70.7	8.2	11.5
79	P1548	TAMU CHECK	Corn						.	8.1	35.3	52.3	2.4	48.5	38.1	8.5	74.7	9.4	12.6
80	1366Q	TAMU CHECK	Corn						.	8.4	31.1	54.0	2.3	52.8	40.0	8.2	77.3	8.7	11.3
									Mean	8.0	48.9	46.0	4.7	32.6	17.1	13.6	62.4	6.2	10.0
									CV (%)	5.8	6.3	5.6	12.2	9.3	24	23	3	2.3	8.7
									p-val	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
									LSD	0.75	5	4.2	0.93	4.9	6.7	5	3	2.7	1.5

† If HB date is not reported, the respective hybrid did not reach HB prior to the last harvest date. *Mean and statistical evaluations do not include corn hybrids. Forage characteristics and advertised maturity are provided by developer/company at the time of entry.

Table 3. 2022 Texas A&M AgriLife Bushland Forage Sorghum Silage Trial forage yield and nutritive value sorted by maximum pounds total digestible nutrients (TDN) per acre (DM basis) for sorghum hybrids. Male Sterile hybrids were pollinated by neighboring hybrids in the trial. FS=forage sorghum, SS=Sorghum Sudan, GS=Grain sorghum, PS=Photoperiod Sensitive

Hybrid Characteristics										Nutrient Composition (DM Basis)									
Entry	HYBRID	COMPANY	TYPE	Advertised Maturity	SCA Tol.	BMR	Brach-ytic	Male Sterile	Days to HB†	% Crude Protein	% NDF	% NDFD30	% Lignin	% NFC	% Starch	% WSC	% TDN	tons TDN/ac	Yield (tons/ac) DM Basis
63	Hybrid Sorghum	Supra International	FS	Med	No	No	No	No	94	5.8	46.9	47.7	5.2	37.1	9.0	27.8	64.3	8.4	13.1
48	SS405	S&W Seed	FS	Med-Late	No	No	No	No	96	6.9	53.4	43.0	5.3	30.3	19.3	8.8	59.0	7.5	12.6
12	F72FS05	DynaGro	FS	Med-Early	No	No	No	No	92	7.5	51.8	42.3	5.3	31.2	18.5	11.7	60.0	7.5	12.6
29	F27	Richardson Seeds	FS	Med	No	No	No	No	95	7.9	47.1	42.3	4.9	35.1	22.3	10.6	62.3	7.4	11.9
19	Super Sile 20	DynaGro	FS	Med-Late	No	No	No	No	93	7.5	51.3	43.7	5.1	31.3	18.9	11.1	59.3	7.3	12.4
42	SP1792	S&W Seed	FS	Med	No	No	No	Yes	67	8.3	38.4	40.3	5.0	43.6	24.9	14.9	66.0	7.3	11.1
55	X54243	Scott Seed Co.	SS	Med-Late	Yes	No	No	Yes	99	6.1	62.5	43.0	6.3	21.7	5.4	15.7	54.0	7.3	13.5
18	Fullgraze II BMR	DynaGro	SS	Med-Late	No	Yes	No	No	98	7.2	55.2	50.0	4.7	26.3	8.3	17.1	61.7	7.2	11.6
31	F429	Richardson Seeds	FS	Med-Late	No	Yes	No	No	96	7.3	53.0	50.0	4.5	29.7	20.1	8.6	64.0	7.1	11.2
49	SWFS8802	S&W Seed	FS	Med-Early	No	Yes	No	No	92	8.5	51.1	43.7	5.0	30.5	21.9	7.1	60.3	7.1	11.8
1	ADV F7232	Advanta	FS	Med	No	Yes	Yes	No	94	8.6	50.2	53.7	4.3	30.2	18.4	11.1	66.0	6.9	10.5
3	ADV F8322	Advanta	FS	Med	Yes	No	No	No	94	7.5	50.8	41.3	5.0	32.1	20.6	9.3	60.3	6.8	11.3
70	Integra 34F95	Wilbur-Ellis	FS	Med	No	Yes	No	Yes	69	8.7	42.0	50.3	3.9	38.7	18.6	19.3	67.3	6.8	10.1
64	Hybrid Sorghum Sudan	Supra International	SS	Med	No	No	No	No	95	6.4	51.1	45.7	5.3	31.9	4.1	27.0	59.7	6.8	11.4
56	X56023	Scott Seed Co.	FS	Med	No	Yes	No	No	93	7.9	47.8	48.7	4.3	33.1	11.6	20.5	63.3	6.7	10.6
40	NK300	S&W Seed	FS	Med-Early	No	No	No	No	91	7.8	48.8	40.7	4.6	34.1	25.1	7.4	60.3	6.7	11.1
17	Fullgraze II	DynaGro	FS	Med-Late	No	No	No	No	96	6.3	62.3	42.3	5.9	21.2	2.8	18.2	53.3	6.7	12.5
20	Super Sile 30	DynaGro	FS	Med-Early	No	No	No	No	93	6.7	51.3	39.7	5.2	31.6	14.3	15.7	57.7	6.7	11.6
71	Integra 38F80	Wilbur-Ellis	FS	Late	Yes	No	No	No	90	8.1	54.2	47.3	5.0	26.9	8.2	18.1	60.0	6.7	11.1
76	84G62	TAMU CHECK	GS	Early	No				62	8.7	36.3	39.7	4.1	45.9	33.7	4.9	67.3	6.7	9.9
73	CP 3681 AT	Winfield United	FS	Med-Late	Yes	No	No	No	95	7.4	54.6	43.0	5.6	27.8	16.3	9.3	57.7	6.6	11.1
2	ADV F7424	Advanta	FS	Med-Late	Yes	Yes	Yes	No	96	7.9	48.1	52.3	3.7	33.2	20.7	11.2	66.7	6.5	9.8
53	X52053	Scott Seed Co.	FS	Med	No	No	Yes	No	76	9.2	44.8	42.7	4.8	36.3	25.3	8.3	63.0	6.5	10.1
16	F75FS13	DynaGro	FS	Med	No	No	No	No	70	7.9	42.2	44.0	4.7	39.2	21.8	16.0	64.3	6.5	10.2
50	SWGS2042	S&W Seed	GS	Med	Yes	No	Yes	No	70	8.9	37.8	41.7	4.5	44.3	30.6	7.1	67.3	6.5	9.6
54	X52242	Scott Seed Co.	FS	Med	Yes	No	No	No	99	7.0	54.0	46.3	5.0	28.2	11.5	15.7	60.0	6.5	10.8
5	ADV S6520	Advanta	SS	Late	Yes	Yes	No	No	97	7.6	58.5	50.7	5.6	21.8	1.4	19.3	58.0	6.5	11.1
8	Danny Boy II BMR	DynaGro	SS	PS	No	Yes	No	No	123	6.8	59.2	49.0	5.4	21.8	0.2	21.4	57.7	6.4	11.2
9	Dynagraze II	DynaGro	SS	Med-Early	No	No	No	No	65	9.0	48.0	39.0	5.4	32.2	16.6	14.6	58.0	6.4	11.1
35	S425	Richardson Seeds	SS	Late	Yes	No	No	No	96	6.7	55.2	46.3	6.1	27.5	4.2	22.6	58.3	6.4	10.9
14	F74FS23 BMR	DynaGro	FS	Med	No	Yes	No	No	94	7.5	46.0	51.7	4.2	33.0	18.3	13.7	63.3	6.4	10.1
6	AF7401	Advanta	FS	Med-Late	No	Yes	Yes	No	96	8.0	51.7	51.0	4.4	29.3	14.3	13.2	64.0	6.4	9.9
36	S470	Richardson Seeds	SS	PS	Yes	No	No	No	.	6.4	60.4	43.0	6.2	22.1	0.9	21.0	53.3	6.4	11.9
13	F72FS25 BMR	DynaGro	FS	Med	No	Yes	Yes	No	98	8.4	47.6	52.0	4.0	33.1	21.3	11.0	66.3	6.3	9.6
7	5FS Star	DynaGro	FS	Early	No	No	No	No	71	8.6	43.2	41.0	4.6	38.0	20.3	16.6	62.0	6.3	10.2
41	SP1727 BMR	S&W Seed	FS	Med	No	Yes	No	Yes	79	7.7	47.8	53.0	4.5	32.8	5.7	26.0	65.3	6.3	9.6
33	F431	Richardson Seeds	FS	Early	Yes	Yes	Yes	No	73	9.5	43.7	48.3	4.0	36.7	26.8	6.2	67.7	6.3	9.2
22	PEARL	MOJO Seed	FS	Med-Early	Yes	No	Yes	No	72	8.2	44.9	45.0	4.4	36.4	23.9	10.9	63.7	6.2	9.7
65	2-Way AT	Warner Seeds	FS	Med-Late	Yes	No	No	No	94	7.5	53.8	44.0	5.3	28.1	17.7	9.9	58.7	6.2	10.7
28	F251	Richardson Seeds	FS	Early	Yes	No	No	No	65	8.6	41.7	41.0	4.2	40.5	26.9	10.8	63.7	6.1	9.6
57	X56065	Scott Seed Co.	FS	Med	No	Yes	Yes	No	95	8.4	45.8	50.3	3.9	34.7	20.3	13.1	66.0	6.1	9.3
69	Integra 33F70	Wilbur-Ellis	FS	Late	No	Yes	Yes	No	96	8.0	48.3	49.0	4.6	32.9	23.2	7.3	64.3	6.1	9.5
77	DKS 37-07	TAMU CHECK	GS	Early	Yes				58	9.2	33.8	35.7	4.5	48.4	35.2	4.9	68.0	6.1	9.0
4	ADV F8484IG	Advanta	FS	Med-Late	No	No	Yes	No	96	7.5	52.7	43.7	5.3	29.7	19.4	9.9	59.7	6.1	10.2
32	F430	Richardson Seeds	FS	Late	Yes	Yes	No	Yes	98	6.2	59.1	49.7	5.5	24.1	2.2	20.9	59.0	6.1	10.3
34	F465	Richardson Seeds	FS	Med	Yes	No	No	Yes	74	8.3	40.9	45.7	4.5	40.9	24.4	13.4	67.0	6.1	9.1
15	F74FS72 BMR	DynaGro	FS	Med	No	Yes	Yes	No	89	8.5	50.5	54.7	4.2	29.2	17.1	10.4	65.0	6.1	9.3

Table 3. 2022 Texas A&M AgriLife Bushland Forage Sorghum Silage Trial forage yield and nutritive value sorted by maximum pounds total digestible nutrients (TDN) per acre (DM basis) for sorghum hybrids. Male Sterile hybrids were pollinated by neighboring hybrids in the trial. FS=forage sorghum, SS=Sorghum Sudan, GS=Grain sorghum, PS=Photoperiod Sensitive

Hybrid Characteristics										Nutrient Composition (DM Basis)									
Entry	HYBRID	COMPANY	TYPE	Advertised Maturity	SCA Tol.	BMR	Brach-ytic	Male Sterile	Days to HB†	% Crude Protein	% NDF	% NDFD30	% Lignin	% NFC	% Starch	% WSC	% TDN	tons TDN/ac	Yield (tons/ac) DM Basis
51	X5061038	Scott Seed Co.	FS	Med	No	Yes	Yes	No	92	8.2	45.9	48.7	4.6	36.3	26.0	7.0	66.3	6.1	9.2
62	Hybrid Pearl Millet	Supra International	Millet	PS	No	No	No	No	77	7.0	59.7	38.3	6.3	20.3	0.6	16.2	48.0	6.0	12.6
60	XC112	Sharp Brothers Seed	FS	Med	No	No	No	Yes	80	8.0	41.9	42.7	5.0	40.0	24.1	13.5	64.7	6.0	9.3
68	Integra 31F65	Wilbur-Ellis	SS	Med	No	Yes	Yes	No	86	7.5	50.1	48.7	4.8	31.1	10.4	19.9	62.0	5.8	9.4
37	S473	Richardson Seeds	SS	PS	Yes	Yes	No	No	.	6.3	59.5	47.3	4.9	23.4	1.2	22.2	58.0	5.8	10.2
43	SP2774 BMR	S&W Seed	FS	Med-Early	No	Yes	No	No	68	7.8	51.3	44.3	5.3	30.3	17.1	12.8	60.7	5.8	9.6
52	X50665	Scott Seed Co.	FS	Med	No	Yes	Yes	No	90	7.9	48.9	48.7	4.8	32.2	24.1	5.8	63.7	5.8	9.2
10	Dynagraze II BMR	DynaGro	SS	Med-Early	No	Yes	No	No	70	7.9	56.1	43.7	5.0	25.5	10.6	14.5	57.3	5.8	10.1
45	SP3905 BD BMR	S&W Seed	FS	Med-Early	No	Yes	Yes	No	69	9.1	40.1	47.0	4.1	40.4	27.0	9.9	68.0	5.8	8.5
47	SPBD703	S&W Seed	FS	Early	No	Yes	Yes	No	90	8.3	55.2	54.3	4.1	24.5	4.6	18.9	62.7	5.8	9.2
26	x-22202	MOJO Seed	FS	Med-Late	Yes	No	No	No	96	7.2	54.8	46.7	5.0	27.3	17.0	8.8	60.3	5.8	9.2
72	CP 3501 IQ	Winfield United	FS	Med	No	No	No	No	84	8.4	43.0	47.3	4.1	37.8	17.9	16.7	66.3	5.8	8.7
66	W7051	Warner Seeds	GS	Med-Early	Yes	No	No	No	72	9.1	43.1	42.0	3.9	37.8	26.7	8.0	63.7	5.7	8.8
75	CP BMR 3731	Winfield United	FS	Med-Late	No	Yes	Yes	No	95	8.4	49.0	48.3	4.4	31.2	25.0	3.5	62.7	5.7	9.1
67	W7706-W	Warner Seeds	GS	Med-Early	Yes	No	No	No	75	9.2	43.0	43.3	4.0	37.6	26.2	8.2	64.3	5.7	8.8
23	x-22029	MOJO Seed	FS	Med-Early	Yes	No	No	No	85	8.8	45.7	46.7	4.2	34.3	21.5	12.3	64.0	5.6	8.7
58	Grazex BMR 801	Sharp Brothers Seed	SS	Med	No	Yes	No	No	69	9.0	48.0	44.0	4.6	32.4	15.6	16.2	61.0	5.6	9.1
59	Grazex III	Sharp Brothers Seed	SS	Med	No	No	No	No	73	8.7	45.6	44.0	4.7	35.4	20.8	11.8	63.3	5.6	8.9
61	XV400	Sharp Brothers Seed	FS	Med	No	No	No	Yes	70	8.7	41.0	43.3	4.6	40.2	24.8	13.0	65.7	5.6	8.4
24	x-22077	MOJO Seed	FS	Med-Early	Yes	No	No	No	77	7.7	48.3	51.7	4.2	32.5	12.2	19.4	64.3	5.6	8.6
21	Super Sweet 10	DynaGro	SS	Med	No	No	No	No	66	8.6	47.8	42.3	5.6	33.1	16.7	15.1	60.7	5.6	9.2
39	S72	Richardson Seeds	SS	Late	Yes	Yes	No	No	103	7.0	56.2	44.3	5.6	25.9	0.4	25.4	56.3	5.5	9.7
38	S60	Richardson Seeds	SS	Med-Early	Yes	Yes	No	No	72	7.7	52.3	52.0	4.5	28.9	6.4	21.5	63.7	5.4	8.5
30	F382	Richardson Seeds	FS	Early	Yes	Yes	No	No	73	8.2	43.1	44.3	4.0	39.7	26.7	9.4	65.7	5.4	8.2
44	SP3904 BD BMR	S&W Seed	FS	Med-Late	No	Yes	Yes	No	95	8.5	50.8	52.7	3.6	29.4	21.3	5.1	64.7	5.3	8.2
11	F71FS72 BMR	DynaGro	FS	Early	No	Yes	No	No	68	9.3	37.2	43.3	4.0	43.5	28.2	11.5	68.0	5.3	7.7
74	CP BMR 3531	Winfield United	FS	Med	No	Yes	Yes	No	96	8.5	50.0	51.7	4.5	29.5	16.6	11.3	64.3	5.2	8.1
46	SPBD702	S&W Seed	FS	Early	No	Yes	Yes	No	90	9.4	52.0	55.7	3.7	26.7	6.2	19.6	65.7	5.0	7.6
25	x-22201	MOJO Seed	FS	Med-Early	Yes	No	No	No	78	8.6	47.0	47.7	4.1	33.6	20.7	11.6	64.7	5.0	7.7
27	F24	Richardson Seeds	FS	Early	Yes	No	Yes	No	73	8.9	38.5	39.7	4.4	43.2	31.1	5.5	66.0	4.9	7.5
78	DKC70-64	TAMU CHECK	Corn						.	8.3	39.6	46.0	3.3	44.2	33.5	7.4	70.7	8.1	11.5
79	P1548	TAMU CHECK	Corn						.	8.1	35.3	52.3	2.4	48.5	38.1	8.5	74.7	9.4	12.6
80	1366Q	TAMU CHECK	Corn						.	8.4	31.1	54.0	2.3	52.8	40.0	8.2	77.3	8.7	11.3
									Mean	8.0	48.9	46.0	4.7	32.6	17.1	13.6	62.4	6.2	10.0
									CV (%)	5.8	6.3	5.6	12.2	9.3	24	23	3	9.7	8.7
									p-val	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
									LSD	0.75	5	4.2	0.93	4.9	6.7	5	3	1.5	1.5

† If HB date is not reported, the respective hybrid did not reach HB prior to the last harvest date. *Mean and statistical evaluations do not include corn hybrids. Forage characteristics and advertised maturity are provided by developer/company at the time of entry.

Table 4. 2022 Texas A&M AgriLife Bushland Forage Sorghum Silage Trial grain yields and harvest index (pounds of grain per pound of total biomass).
Yields for all hybrids evaluated as a percent of the trial's long-term grain sorghum check Pioneer 84G62.
(2022 84G62 yield: 10,598 lbs/acre; 13 year average: 8,456 lbs/acre)

Entry	COMPANY	HYBRID	TYPE	Advertised Maturity	SCA Tol.	BMR	Brach-ytic	Male Sterile	Days to HB†	% Bird Damage§	Grain bu/ac. 13% GM	Grain Yield (lb/ac) 13% GM	Grain Yield as a % of 2022 84G62 Grain Yield	Grain Yield as a % of 84G62 13-year Avg. Yield	Forage Yield (tons/ac) DM Basis	Harvest Index (lbs. dry grain/lbs. total biomass)
73	Winfield United	CP 3681 AT	FS	Med-Late	Yes	No	No	No	95	.	298	14923	1.41	1.76	11.15	0.59
27	Richardson Seeds	F24	FS	Early	Yes	No	Yes	No	73	.	285	14245	1.34	1.68	7.49	0.84
28	Richardson Seeds	F251	FS	Early	Yes	No	No	No	65	.	259	12967	1.22	1.53	9.65	0.59
47	S&W Seed	SPBD703	FS	Early	No	Yes	Yes	No	90	.	256	12779	1.21	1.51	9.24	0.61
71	Wilbur-Ellis	Integra 38F80	FS	Late	Yes	No	No	No	90	.	241	12046	1.14	1.42	11.13	0.48
33	Richardson Seeds	F431	FS	Early	Yes	Yes	Yes	No	73	.	234	11716	1.11	1.39	9.24	0.56
30	Richardson Seeds	F382	FS	Early	Yes	Yes	No	No	73	.	230	11491	1.08	1.36	8.16	0.62
26	MOJO Seed	x-22202	FS	Med-Late	Yes	No	No	No	96	38	225	11236	1.06	1.33	9.17	0.54
3	Advanta	ADV F8322	FS	Med	Yes	No	No	No	94	.	213	10642	1.00	1.26	11.32	0.42
76	TAMU CHECK	84G62	GS	Early	No	.	.	.	62	.	212	10598	1.00	1.25	9.88	0.47
75	Winfield United	CP BMR 3731	FS	Med-Late	No	Yes	Yes	No	95	.	207	10333	0.97	1.22	9.05	0.51
77	TAMU CHECK	DKS 37-07	GS	Early	Yes	.	.	.	58	.	202	10110	0.95	1.20	8.98	0.50
2	Advanta	ADV F7424	FS	Med-Late	Yes	Yes	Yes	No	96	.	198	9880	0.93	1.17	9.79	0.45
48	S&W Seed	SS405	FS	Med-Late	No	No	No	No	96	63	190	9508	0.90	1.12	12.64	0.33
29	Richardson Seeds	F27	FS	Med	No	No	No	No	95	.	190	9484	0.89	1.12	11.88	0.35
52	Scott Seed Co.	X50665	FS	Med	No	Yes	Yes	No	90	.	189	9468	0.89	1.12	9.16	0.46
40	S&W Seed	NK300	FS	Med-Early	No	No	No	No	91	.	180	9010	0.85	1.07	11.13	0.36
46	S&W Seed	SPBD702	FS	Early	No	Yes	Yes	No	90	.	178	8915	0.84	1.05	7.65	0.52
53	Scott Seed Co.	X52053	FS	Med	No	No	Yes	No	76	.	175	8763	0.83	1.04	10.07	0.39
31	Richardson Seeds	F429	FS	Med-Late	No	Yes	No	No	96	.	175	8741	0.82	1.03	11.17	0.35
57	Scott Seed Co.	X56065	FS	Med	No	Yes	Yes	No	95	25	171	8540	0.81	1.01	9.29	0.41
34	Richardson Seeds	F465	FS	Med	Yes	No	No	Yes	74	25	168	8393	0.79	0.99	9.06	0.41
51	Scott Seed Co.	X5061038	FS	Med	No	Yes	Yes	No	92	.	167	8371	0.79	0.99	9.16	0.40
49	S&W Seed	SWFS8802	FS	Med-Early	No	Yes	No	No	92	.	161	8027	0.76	0.95	11.80	0.30
25	MOJO Seed	x-22201	FS	Med-Early	Yes	No	No	No	78	42	150	7499	0.71	0.89	7.72	0.43
56	Scott Seed Co.	X56023	FS	Med	No	Yes	No	No	93	.	147	7331	0.69	0.87	10.63	0.31
50	S&W Seed	SWGS2042	GS	Med	Yes	No	Yes	No	70	.	142	7118	0.67	0.84	9.62	0.33
4	Advanta	ADV F8484IG	FS	Med-Late	No	No	Yes	No	96	.	142	7085	0.67	0.84	10.24	0.31
70	Wilbur-Ellis	Integra 34F95	FS	Med	No	Yes	No	Yes	69	63	138	6911	0.65	0.82	10.07	0.30
23	MOJO Seed	x-22029	FS	Med-Early	Yes	No	No	No	85	50	136	6815	0.64	0.81	8.75	0.34
74	Winfield United	CP BMR 3531	FS	Med	No	Yes	Yes	No	96	.	135	6737	0.64	0.80	8.10	0.37
54	Scott Seed Co.	X52242	FS	Med	Yes	No	No	No	99	38	131	6544	0.62	0.77	10.80	0.27
6	Advanta	AF7401	FS	Med-Late	No	Yes	Yes	No	96	.	119	5961	0.56	0.70	9.94	0.27
24	MOJO Seed	x-22077	FS	Med-Early	Yes	No	No	No	77	50	115	5747	0.54	0.68	8.64	0.29
59	Sharp Brothers Seed	Grazex III	SS	Med	No	No	No	No	73	50	111	5555	0.52	0.66	8.85	0.28
68	Wilbur-Ellis	Integra 31F65	SS	Med	No	Yes	Yes	No	86	65	97	4863	0.46	0.58	9.44	0.23

Table 4. 2022 Texas A&M AgriLife Bushland Forage Sorghum Silage Trial grain yields and harvest index (pounds of grain per pound of total biomass).
Yields for all hybrids evaluated as a percent of the trial's long-term grain sorghum check Pioneer 84G62.
(2022 84G62 yield: 10,598 lbs/acre; 13 year average: 8,456 lbs/acre)

Entry	COMPANY	HYBRID	TYPE	Advertised Maturity	SCA Tol.	BMR	Brach-ytic	Male Sterile	Days to HB†	% Bird Damage§	Grain bu/ac. 13% GM	Grain Yield (lb/ac) 13% GM	Grain Yield as a % of 2022 84G62 Grain Yield	Grain Yield as a % of 84G62 13-year Avg. Yield	Forage Yield (tons/ac) DM Basis	Harvest Index (lbs. dry grain/lbs. total biomass)
69	Wilbur-Ellis	Integra 33F70	FS	Late	No	Yes	Yes	No	96	.	96	4778	0.45	0.57	9.51	0.22
1	Advanta	ADV F7232	FS	Med	No	Yes	Yes	No	94	.	79	3962	0.37	0.47	10.49	0.17
43	S&W Seed	SP2774 BMR	FS	Med-Early	No	Yes	No	No	68	57	78	3894	0.37	0.46	9.62	0.18
32	Richardson Seeds	F430	FS	Late	Yes	Yes	No	Yes	98	80	77	3851	0.36	0.46	10.31	0.17
72	Winfield United	CP 3501 IQ	FS	Med	No	No	No	No	84	83	75	3732	0.35	0.44	8.66	0.19
58	Sharp Brothers Seed	Grazex BMR 801	SS	Med	No	Yes	No	No	69	50	68	3402	0.32	0.40	9.08	0.17
38	Richardson Seeds	S60	SS	Med-Early	Yes	Yes	No	No	72	80	36	1802	0.17	0.21	8.53	0.09

§Estimated % bird damage is the average of visual observations based on % head damage. Bird damage was not uniform across the field, but specified hybrids were damaged across all reps.