

2022 Dryland Hybrid Forage Sorghum Performance Trial at Walsh

Brand	Hybrid	Forage		Emerged			Plant	Lodging	Days to Flowering	Relative Maturity ^b	Forage Type ^c	Traits ^d	RFQ ^e
		Yield ^a	Yield	Brix	Population	Height							
		tons/ac	% of test average	%	plants/ac	in	%	days after planting					
Dyna-Gro Seed	Sweet Ton MS	19.3	138	20.5	35,200	98	0	82	E/ML	FS	MS	142	
Dyna-Gro Seed	Fullgraze II BMR	18.9	135	18.8	20,500	119	0	112	ML	SS	BMR	123	
Dyna-Gro Seed	Super Sile 30	17.5	125	19.2	21,500	104	0	108	ML/ME	FS	-	117	
Dyna-Gro Seed	Danny Boy II BMR	16.0	115	14.8	32,500	100	0	Veg	PPS	SS	BMR	128	
Dyna-Gro Seed	Super Sile 20	15.4	110	15.3	35,200	97	0	109	ML	FS	-	106	
Dyna-Gro Seed	Fullgraze II	15.0	107	19.6	34,100	114	10	109	ML	SS	-	126	
Dyna-Gro Seed	Dynagraze II BMR	15.0	107	16.4	23,900	88	0	83	E/ME	SS	BMR	97	
Warner Seeds	2-Way AT	14.9	107	16.2	26,700	77	0	107	ML	FS	SCA	123	
Dyna-Gro Seed	5FS Star	14.9	107	10.1	30,600	89	0	97	M/E	FS	-	129	
Dyna-Gro Seed	Super Sweet 10	14.1	101	12.5	22,500	99	0	83	E/M	SS	-	132	
Sorghum Partners	SP2774 BMR	14.0	100	13.4	27,100	97	0	84	E	FS	BMR	136	
Sorghum Partners	SPBD702	14.0	100	13.6	32,900	64	0	100	M	FS	-	151	
MOJO Seed	PEARL	14.0	100	6.6	22,900	82	2	96	M	FS	SCA	167	
Sorghum Partners	SP1792 MS	13.9	100	10.2	35,200	84	8	96	M	FS	MS	132	
Sorghum Partners	SS405	13.7	98	17.7	23,600	105	0	112	ML	FS	-	118	
Dyna-Gro Seed	F72FS05	13.6	97	19.7	29,000	64	0	110	ML/ME	FS	-	152	
Dyna-Gro Seed	F71FS72 BMR	13.6	97	6.3	29,400	73	0	89	ME/E	FS	BMR	109	
Sorghum Partners	SPBD703	13.5	97	10.3	29,000	76	8	99	M	FS	-	136	
Warner Seeds	W7706-W	13.3	95	6.5	29,000	69	0	95	M/ME	GS	SCA	169	
Sorghum Partners	SP1727 MS BMR	13.3	95	15.5	29,400	90	0	96	M	FS	MS/BMR	151	
Sorghum Partners	F74FS23 BMR	13.2	95	11.6	26,700	86	4	105	M	FS	BMR	140	
Dyna-Gro Seed	F75FS13	13.0	93	16.6	21,700	79	0	89	ME/M	FS	-	136	
KWS	Freya	12.8	92	13.3	31,800	120	2	83	E/VE	SS	-	122	
Dyna-Gro Seed	F72FS72 BMR	11.3	81	12.9	43,400	63	0	108	ML/M	FS	BMR	123	
Dyna-Gro Seed	F72FS25 BMR	11.3	81	9.8	34,500	63	0	107	ML/M	FS	BMR	130	
KWS	Kallisto	10.9	78	DS	32,900	116	4	79	E/VE	SS	-	107	
Dyna-Gro Seed	Dynagraze II	10.5	75	15.0	44,500	105	0	78	E/ME	SS	-	111	
Sorghum Partners	NK300	10.2	73	15.2	22,900	62	0	107	ML	FS	-	133	
Average		14.0		14.0	29,593	89	1	97				130	
^f LSD (P<0.20)		2.6											
^f LSD (P<0.05)		4.0											

^aYields are adjusted to 65% moisture content based on oven-dried samples.

^bRelative Maturity: E=early; ME=medium-early; M=medium; ML=medium-late; L=late; PPS=photoperiod sensitive.

^cForage Type: FS=forage sorghum; S=sudangrass; SS=sorghum sudangrass.

^dTraits: BD=brachytic dwarf; BMR=brown mid-rib; MS=male sterile; SCA=Sugar Cane Aphid.

^eForage quality analyses based on oven-dried weight, RFQ=relative forage quality.

^fFarmers selecting a hybrid based on yield should use the LSD (.20) to protect themselves from false negative conclusions (concluding hybrids are the same when they are actually different). Companies or researchers may be interested in the LSD (.05) to avoid false positive conclusions (concluding hybrids are different when they are actually the same).

Site Information

Collaborator: Plainsman Research Center (Kevin Larson & Brett Pettinger)

Planting Date: June 2, 2022 at 69,700 seeds/ac, planting depth 1.5 in.

Harvest Date: October 14, 2022 with a harvest area of 5 ft. by 44 ft per plot.

Previous Crop: Wheat

Herbicide: Preemergence: Flumioxazin at 2.5 oz/ac; Atrazine at 1.0 lb/ac; and Metolachlor at 1.33 pts/ac.

Fertilizer: Anhydrous N at 60 lb/ac and 10-34-0 at 5 gal/ac (20 lb P₂O₅/ac, 6 lb N/ac) was strip till applied.

Soil Type: Richfield silt loam

Comments: Planted into strip tilled wheat stubble. Slow emergence and adequate stands. Precipitation for the growing season was nearly average. August was wet with 4.40 in. (4.36 in. came from one rain event). September and October were dry. Weed control was good. Only a few hybrids had minor lodging at harvest.

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2022 Dryland Forage Sorghum Hybrid Performance Trial Feed Quality at Walsh

Brand	Hybrid	Forage Yield ^b tons/ac	Forage Quality ^a														
			RFQ	CP	ADF	aNDFom	Lignin	WSC			NDFD				NEL	Milk/Ton	Beef/Ton
								Sugar	Starch	Fat	Ash	30hr	240hr	TDN			
Dyna-Gro Seed	Sweet Ton MS	19.3	142	8	26.3	40	3	15	18	3	7	41	60	68	71	3,218	152
Dyna-Gro Seed	Fullgraze II BMR	18.9	123	7	32.9	55	5	11	4	2	7	59	75	66	65	2,980	170
Dyna-Gro Seed	Super Sile 30	17.5	117	8	33.1	55	4	11	4	3	8	57	72	66	63	2,839	147
Dyna-Gro Seed	Danny Boy II BMR	16.0	128	8	34.4	55	4	10	2	2	9	62	75	66	63	2,875	165
Dyna-Gro Seed	Super Sile 20	15.4	106	8	34.7	54	5	8	10	2	7	51	70	65	63	2,801	121
Dyna-Gro Seed	Dynagraze II BMR	15.0	126	7	33.2	55	6	11	10	2	6	58	72	66	67	3,083	171
Dyna-Gro Seed	Fullgraze II	15.0	97	6	36.9	61	5	9	5	2	5	53	70	65	63	2,765	112
Warner Seeds	2-Way AT	14.9	123	8	30.1	49	4	12	9	3	7	51	70	67	66	2,988	158
Dyna-Gro Seed	5FS Star	14.9	129	7	29.4	48	4	11	17	2	6	51	69	67	68	3,132	167
Dyna-Gro Seed	Super Sweet 10	14.1	132	8	29	42	6	10	28	2	5	41	59	67	74	3,358	158
Sorghum Partners	SP2774 BMR	14.0	136	8	31	51	5	9	19	2	6	58	72	67	69	3,239	191
Sorghum Partners	SPBD702	14.0	151	9	27.8	47	4	10	25	3	6	57	68	68	71	3,349	205
MOJO Seed	PEARL	14.0	167	9	23.8	37	4	11	34	3	6	46	62	69	75	3,484	186
Sorghum Partners	SP1792 MS	13.9	132	7	29	45	4	13	16	3	5	47	65	67	71	3,263	172
Sorghum Partners	SS405	13.7	118	6	30.3	48	4	14	9	2	5	47	68	67	68	3,087	154
Dyna-Gro Seed	F71FS72 BMR	13.6	152	8	26.9	43	5	10	28	3	6	52	66	68	72	3,371	188
Dyna-Gro Seed	F72FS05	13.6	109	8	36.1	57	6	7	11	2	7	55	73	65	63	2,849	136
Sorghum Partners	SPBD703	13.5	136	8	32.9	50	4	8	19	2	8	58	71	66	67	3,080	169
Warner Seeds	W7706-W	13.3	169	9	23.7	38	4	11	35	3	5	47	64	69	76	3,591	206
Sorghum Partners	SP1727 MS BMR	13.3	151	8	26.9	41	4	14	16	3	5	47	64	68	73	3,389	187
Sorghum Partners	F74FS23 BMR	13.2	140	8	29.5	47	4	11	15	3	8	56	71	67	67	3,086	178
Dyna-Gro Seed	F75FS13	13.0	136	7	27.4	45	3	14	17	3	6	48	67	68	70	3,214	172
KWS	Freya	12.8	122	8	33.5	52	6	8	21	2	4	51	67	66	70	3,209	162
Dyna-Gro Seed	F72FS72 BMR	11.3	123	8	33.6	52	5	8	14	2	9	57	72	66	63	2,861	144
Dyna-Gro Seed	F72FS25 BMR	11.3	130	10	32.5	51	5	10	9	3	10	59	73	66	64	2,903	164
KWS	Kallisto	10.9	107	8	32.8	52	6	9	19	2	5	45	63	66	67	3,003	123
Dyna-Gro Seed	Dynagraze II	10.5	111	7	34.8	51	5	10	15	2	6	48	65	65	66	2,941	122
Sorghum Partners	NK300	10.2	133	7	27.7	43	4	13	17	2	8	48	66	68	69	3,157	153
	Average	14.0	130	8	31	49	5	11	16	2	7	52	68	67	68	3,111	162
	^c LSD (0.20)	2.6															

^aAll forage quality analyses results are dry basis values. CP=crude protein; aNDFom=ash free neutral detergent fiber; NDFD=neutral detergent fiber digestibility; TDN=total digestible nutrients; NEL=net energy for lactation; Milk/ton= predicted amount of milk produced per ton of silage dry matter calculated using MILK2013.

^bYields are adjusted to 65% moisture content based on oven-dried samples.

^cThe LSD can be used to judge whether the observed difference between any two entries is meaningful. The LSD (P<0.2) means there is a 20% chance that the observed difference between two entries as great or greater than the LSD are not different, but due to random error.

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