

# University of Florida/Institute of Food and Agricultural Sciences

## Results from the 2021 Summer Forage Sorghum hybrid test

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FORAGE TEAM

Company	Hybrid	Total Production <i>lb DM/A</i>	Estimated silage production (35% DM) <i>Ton silage /A</i>	Milk		Disease score‡	Lodging score‡	DM% at harvest	NE <sub>l</sub> <i>Mcal/lb DM</i>
				production per ton <i>lb milk/ton silage</i>	production per acre <i>lb milk/A</i>				
Dyna-Gro Seed	5 STAR	12602	18.0	3246	20500 n.s.	0.6	0	30%	69.95
Dyna-Gro Seed	F72FS05	11377	16.3	3080	17811	1.1	0	29%	67.50
Dyna-Gro Seed	SUPER SILE 30	12163	17.4	3165	19249	1.8 *	0.13	31%	69.11
Greenpoint ag	IQ 3501	11526	16.5	3504 *	20168	0.5	0	28%	74.25 *
MOJO Seed Enterprises	OPAL	9891	14.1	3034	15025	1.4	0	31%	66.39
MOJO Seed Enterprises	PEARL	12851	18.4	3373 *	21835	1.1	0	32%	72.43 *
Richardson Seeds	F24	12153	17.4	3415 *	20778	0.5	0	33% *	73.11 *
Richardson Seeds	F27	12933	18.5	2881	18605	1.0	1.25 *	30%	63.65
Richardson Seeds	F382	11105	15.9	3121	17396	1.1	0.5	32%	66.70
Richardson Seeds	F429	13318	19.0	3021	20102	1.8 *	0.75	30%	65.52
Richardson Seeds	F431	9082	13.0	3348 *	15384	1.0	0	30%	70.76 *
Sorghum Partners	NK300	13339	19.1	2653	17696	0.8	2.25 *	30%	60.02
Sorghum Partners	SP3904 BD BMR	13053	18.6	2964	19348	1.4	0.63	29%	64.40
Sorghum Partners	SP3905 BD BMR	11333	16.2	3562 *	20306	0.6	0	31%	74.25 *
Sorghum Partners	SS304	14303 *	20.4 *	2912	20845	1.6 *	1.25 *	27%	64.73
<b>Mean</b>	<b>Mean</b>	<b>12069</b>	<b>17.2</b>	<b>3152</b>	<b>19003</b>	<b>1.1</b>	<b>0.45</b>	<b>30%</b>	<b>68.18</b>
<b>SE</b>	<b>SE</b>	<b>1008</b>	<b>1.4</b>	<b>85</b>	<b>1926</b>	<b>0.2</b>	<b>0.18</b>	<b>1%</b>	<b>1.37</b>

\* Indicates hybrids that performed similarly to the best hybrid, according to F-test at  $p < 0.05$ ; n.s. means no statistical difference between hybrids. All mean reported are least square means.

§Hybrids marked with "\*\*\*\*" are on the top right quadrant of the production chart, with superior biomass production *and* superior milk production per ton of silage compared to averages.

‡ Disease score, low values mean less disease incidence. \* Indicates hybrids with the most incidence of disease or lodging

### Parameters:

Disease score: 0 = no disease 3 = heavy disease (>75% incidence); Lodging score: 0 = no lodging 3 = mostly lodged (>75% fallen)

Milk per ton of silage' and 'Milk per acre of silage yield' were calculated using the Milk2013 formulas from the University of Wisconsin

DM, dry matter (%); NEL, net energy for lactation (Mcal/lb DM)

Company	Hybrid	TDN	% DM				% NDF			Top performing (chart) <sup>§</sup>
			CP	Starch	WSC	aNDF	NDFD30	uNDF30		
Dyna-Gro Seed	5 STAR	63.6	7.8	14.3	13.7 *	49.7	53.0	22.6 *	**	
Dyna-Gro Seed	F72FS05	61.3	7.5	15.0	9.5	53.0	52.1	24.8 *		
Dyna-Gro Seed	SUPER SILE 30	62.1	8.5 *	16.5	8.0	51.6	50.3	24.9 *	**	
Greenpoint ag	IQ 3501	66.5 *	8.7 *	18.8 *	10.5	44.0	50.8	21.0 *		
MOJO Seed Enterprises	OPAL	61.2	7.8	7.9	12.4 *	56.6	54.8	16.4		
MOJO Seed Enterprises	PEARL	64.7	8.5 *	21.8 *	7.2	46.8	49.6	22.8 *	**	
Richardson Seeds	F24	65.3 *	8.7 *	23.0 *	5.9	45.3	49.4	22.1 *	**	
Richardson Seeds	F27	60.0	7.3	9.0	8.4	60.3 *	57.4	16.3		
Richardson Seeds	F382	64.1	7.0	6.4	12.8 *	57.9 *	62.5 *	13.1		
Richardson Seeds	F429	62.2	6.8	8.8	9.9	59.1 *	59.8 *	14.8		
Richardson Seeds	F431	65.8 *	9.1 *	16.1	7.2	51.1	58.6 *	20.7		
Sorghum Partners	NK300	57.4	7.3	5.3	7.7	65.7 *	58.2	18.2		
Sorghum Partners	SP3904 BD BMR	62.0	7.8	10.4	7.2	59.5 *	61.6 *	15.9		
Sorghum Partners	SP3905 BD BMR	68.3 *	8.7 *	17.9 *	10.9	45.5	57.3	18.7		
Sorghum Partners	SS304	59.4	6.4	6.5	14.8 *	56.9	53.2	16.9		
<b>Mean</b>	<b>Mean</b>	<b>62.9</b>	<b>7.9</b>	<b>13.2</b>	<b>9.7</b>	<b>53.5</b>	<b>55.2</b>	<b>19.3</b>		
<b>SE</b>	<b>SE</b>	<b>1.1</b>	<b>0.3</b>	<b>1.8</b>	<b>0.7</b>	<b>2.3</b>	<b>1.5</b>	<b>0.9</b>		

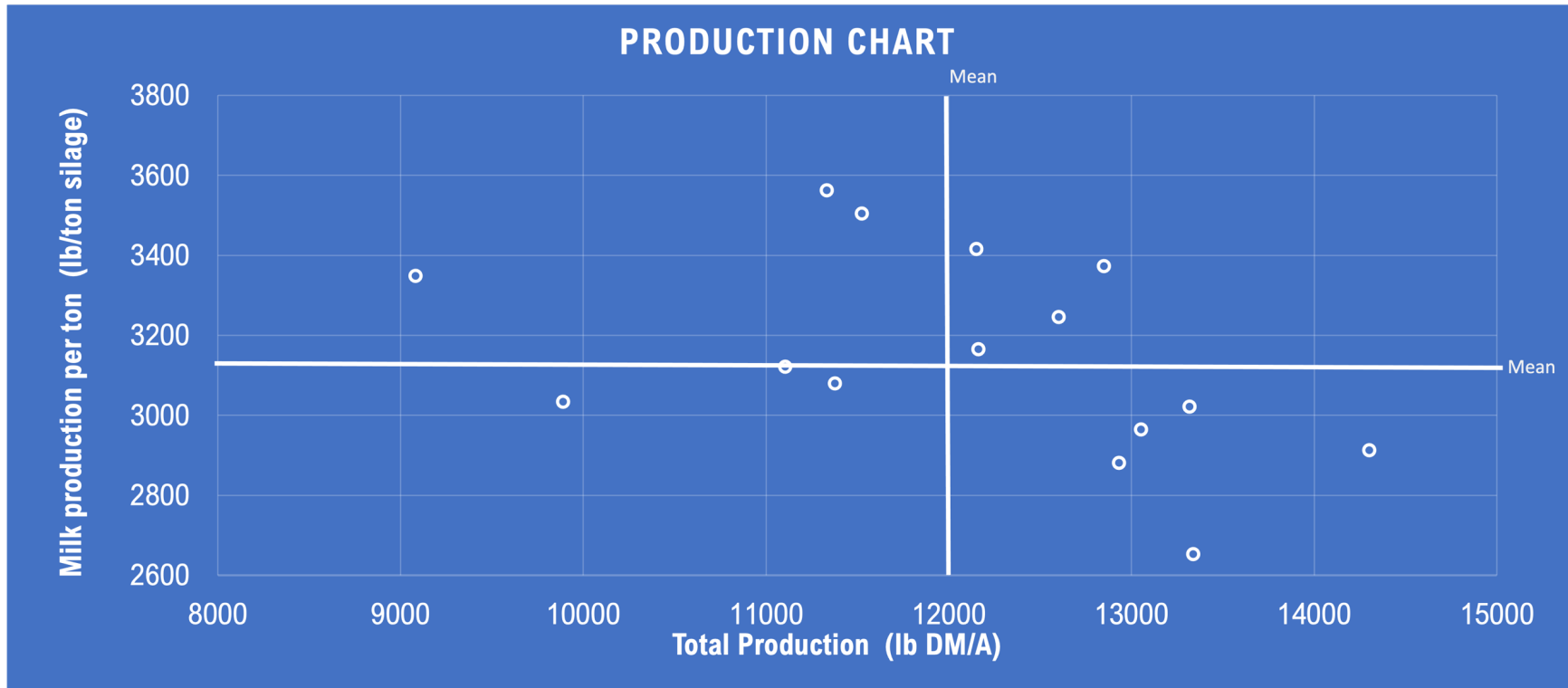
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‡ Disease score - low values mean less disease incidence; \* Indicates hybrids with the most incidence of disease.

**Parameters:**

TTDN, total digestible nutrients (% DM); CP, crude protein (% DM), IVTDMD30, in vitro true dry matter digestibility at 30h in rumen (% DM); starch (% DM); WSC, water soluble carbohydrates (% DM); ADF, acid detergent fiber (% DM); NDFD30, NDF digestibility (as % of NDF) at 30 h in rumen; uNDF30, undigestible NDF (as % of NDF) in 30 hours in rumen.



**Disclosure**  
 This hybrid test is conducted independently by UF/IFAS faculty and is open for all seed companies to enter hybrids for the test.

**Management information**  
 Trial was conducted at the Plant Science Research and Education Unit, in Citra, FL  
 Planting date July 13th, 2021  
 Planting rate was 70,000 seeds/Acre, 30-inch rows; all seeds received already treated with seed safener  
 Fertilizer Application LBS/Acre -N 198; P 56; K 120; Mg 27; S 28; Mn 10; Zn 4; divided in pre-incorporated, starter and 4 other applications; Last applications over irrigation  
 Pesticide application - Bifenthrin planting, with Prowl and Dual at planting and Athrazine at around 12"; Tebustar, Headline Amp at tasseling; Insecticide as needed, total 6 applications (Coragen, Besiege, Warrior and Belt)  
 Trial was irrigated as needed  
 Harvest occurred between October 26<sup>th</sup> and November 2<sup>nd</sup>, 2021

**Contact**  
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