

University of Florida/Institute of Food and Agricultural Sciences

Results from the 2020 Summer Sorghum Sudan hybrid test

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Table 1. Productivity

Company	Hybrid	Total Production	Estimated silage production (35% DM)	Milk production per ton	Milk production per acre	Disease score	DM% at harvest	NE <sub>L</sub>
		<i>lb DM/A</i>	<i>Ton silage/A</i>	<i>lb milk/ton silage</i>	<i>lb milk/A</i>			<i>Mcal/lb DM</i>
Alta Seeds	ADV S6504	6772 n.s.	9.7 n.s.	1519	5112 n.s.	1.0 n.s.	20%	0.44 B
Alta Seeds	ADV XS167	7848	11.2	1731 *	7224	1.4	30%	0.47 AB
DynaGro	Fullgraze II	10196	14.6	1493	7357	1.4	34% *	0.44 B
DynaGro	Fullgraze II BMR	12397	17.7	1866 *	11995	1.0	27%	0.49 A
DynaGro	TopTon	10740	15.3	1735 *	8778	1.4	30%	0.48 A
<b>Mean</b>		<b>9590</b>	<b>13.7</b>	<b>1669</b>	<b>8093</b>	<b>1.2</b>	<b>28%</b>	<b>0.46</b>
<b>SE</b>		<b>2240</b>	<b>3.2</b>	<b>81</b>	<b>2169</b>	<b>0.2</b>	<b>1%</b>	<b>0.01</b>

\* indicates hybrids that performed similarly to the best hybrid, according to F-test at p<0.05. All mean reported are least square means.

**Parameters:**

Disease score: 0 = no disease 3 = heavy disease (>75% incidence)

Milk per ton of silage' and 'Milk per acre of silage yield' were calculated using the Milk2006 formulas from the University of Wisconsin DM, dry matter (%); NE<sub>L</sub>, net energy for lactation (Mcal/lb DM)

Table 2. Nutritive value

Hybrid	TDN	CP	IVTDMD30	Starch	WSC	ADF	aNDF	dNDF30	NDFD30
----- % DM -----									% NDF
ADV S6504	45.9	11.2 *	42.2 n.s.	0.8	4.1	43.4 n.s.	73.2 *	23.0 *	31.4 n.s
ADV XS167	48.5 *	8.0	43.1	2.2	6.9 *	40.7	72.1 *	20.9 *	29.0
Fullgraze II	43.9	6.9	41.2	2.6 *	7.0 *	41.9	73.9 *	19.4	26.3
Fullgraze II BMR	50.9 *	8.3	44.7	1.4	7.6 *	40.0	71.2 *	21.5 *	30.2
TopTon	47.7 *	7.5	44.4	6.2 *	7.3 *	39.4	68.1	18.1	26.5
<b>Mean</b>	<b>47.4</b>	<b>8.4</b>	<b>43.1</b>	<b>2.7</b>	<b>6.6</b>	<b>41.1</b>	<b>71.7</b>	<b>20.6</b>	<b>28.7</b>
<b>SE</b>	<b>1.4</b>	<b>0.6</b>	<b>1.4</b>	<b>1.2</b>	<b>0.3</b>	<b>1.0</b>	<b>1.3</b>	<b>1.0</b>	<b>1.4</b>

\* indicates hybrids that performed similarly to the best hybrid, according to F-test at  $p < 0.05$ . All means reported are least square means.

**Parameters:**

DM, dry matter (%); NEL, net energy for lactation (Mcal/lb DM), TDN, 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); dNDF30, digestible NDF at 30 h in rumen; NDFD30, NDF digestibility (as % of NDF) at 30 h in rumen

**Management information**

Trial was conducted at the Plant Science Research and Education Unit, in Citra, FL

Planting date July 8, 2020

Planting rate was 25 lb /Acre, 7.5-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 - Counter at planting, with Athrazine, Prowl and Dual; Tebustar, Headline at 30-inch plant height, and Headline Amp at tasseling; Insecticide as needed, total 6 applications (Coragen, Besiege, Warrior and Belt)

Trial was irrigated as needed

Harvests occurred between Oct 6 and Oct 20, 2020

**Disclosure**

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

**Contact**

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