University of Florida/Institute of Food and Agricultural Sciences

Results from the 2020 Summer Forage Sorghum 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_l
		lb DM/A	*Ton silage/A*	*lb milk/ton silage*	*lb milk/A*			*Mcal/lb DM*
Alta Seeds	ADV F7232	10030	14.3	2290	11466 n.s.	1.9	25%	0.55
Alta Seeds	ADV F8322	9721	13.9	2392	11515	2.3 *	28% *	0.56
DynaGro	F72FS05	10267	14.7	2715 *	13885	2.0	29% *	0.60 *
DynaGro	F74FS23 BMR	6697	9.6	2410	7931	1.1	24%	0.56
DynaGro	F74FS72 BMR	10205	14.6	2299	11714	2.4 *	25%	0.55
DynaGro	F75FS13	9324	13.3	2213	10381	1.4	22%	0.54
DynaGro	Super Sile 20	7949	11.4	2484	9174	2.4 *	25%	0.57
DynaGro	Super Sile 30	11257	16.1	2919 *	16720	2.8 *	26% *	0.63 *
MOJO Seed Enterprises	OPAL	10781	15.4	2240	12125	1.9	26% *	0.54
Sorghum Partners	NK300	9795	14.0 *	2450	11927	2.3 *	23%	0.57
Sorghum Partners	SP3904 BD BMR	9182	13.1	2360	10753	1.8	26% *	0.56
Sorghum Partners	SP3905 BD BMR	7824	11.2	3238 *	12700	1.4	26% *	0.68 *
Sorghum Partners	SS405	9035	12.9 *	2800 *	12746	2.8 *	26% *	0.61 *
Mean		**9390**	**13.4**	**2524**	**11772**	**2.0**	**25%**	**0.58**
SE		**1206**	**1.7**	**205**	**1996**	**0.2**	**1%**	**0.03**

* 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_L, net energy for lactation (Mcal/lb DM)

Table 2. Nutritive value

Hybrid	TDN		CP		IVTDMD30		Starch		WSC		ADF		aNDF		dNDF30		NDFD30	
	% DM																% NDF	
ADV F7232	59.0		7.8	n.s.	45.1	n.s	7.5	n.s.	7.9	n.s	37.3	n.s	65.2	n.s	16.0	n.s	24.6	n.s
ADV F8322	60.0		7.9		46.4		8.5		6.5		37.8		66.7		17.0		25.3	
F72FS05	65.6	*	8.5		45.7		11.5		5.8		35.4		63.4		15.2		24.1	
F74FS23 BMR	61.6		7.1		46.9		7.1		9.0		37.8		65.4		17.8		27.4	
F74FS72 BMR	59.2		7.9		44.7		7.6		7.2		38.1		65.9		16.4		25.0	
F75FS13	57.4		8.0		43.1		7.4		7.8		37.4		64.4		14.8		22.9	
Super Sile 20	61.9		9.7		46.4		7.2		6.0		38.0		66.4		18.3		27.6	
Super Sile 30	69.3	*	9.6		47.6		10.2		6.1		34.9		63.9		17.4		27.4	
OPAL	58.5		7.5		47.8		8.1		8.5		35.8		64.7		16.8		26.4	
NK300	62.2		7.8		50.0		5.2		8.9		37.4		66.8		19.7		29.5	
SP3904 BD BMR	59.8		9.0		45.7		7.5		5.2		39.0		68.1		18.4		27.0	
SP3905 BD BMR	74.0	*	8.9		45.8		13.5		6.5		33.0		58.5		13.0		22.2	
SS405	68.3	*	7.9		49.3		9.3		9.3		34.0		61.5		16.8		27.4	
Mean	**62.8**		**8.3**		**46.5**		**8.5**		**7.3**		**36.6**		**64.7**		**16.7**		**25.9**	
SE	**3.6**		**0.6**		**2.8**		**1.7**		**1.5**		**1.6**		**2.0**		**1.5**		**2.5**	

* 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 70,000 seeds/Acre, 30-inch rows; all seeds received already treated with seed safener
Fertilizer Appication 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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