

University of Florida/Institute of Food and Agricultural Sciences

Results from the 2020 Spring Corn Silage hybrid test

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Table 1. Productivity

Company	Hybrid	Relative maturity	Total Production	Estimated silage production (35% DM)	Milk production per ton	Milk production per acre	Disease score	NE _i
			<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>
AgraTech	1024VIP		17419	24.9	3643 *	31785 *	1.1	0.74 *
AgraTech	85VT2P		18989	27.1	3194	30369 *	1.0	0.68
AgraTech	88VT2P		16198	23.1	3234	26192	2.1 *	0.68
AgraTech	908VIP		17239	24.6	3548 *	30532 *	0.9	0.73 *
Augusta seed	A1367-3220GT	117	17264	24.6	3269	21557	1.5	0.68
Augusta seed	A4465-3110GT	115	16574	23.7	3546 *	29399 *	1.2	0.73
Augusta seed	A4467-3220GT	115	16930	24.2	3332	28294 *	1.4	0.69
Augusta seed	A7768-3110GT	117	15459	16.9	3247	18606	1.0	0.68
Augusta seed	A8868 VT2Pro	118	18165	25.9	3263	29428 *	1.3	0.69
Croplan Genetics	S5700	118	18793	26.8	3356	31541 *	1.3	0.70
Croplan Genetics	S5900 vt2p	117	16626	23.8	3492	21796	0.6	0.72
Dekalb	DKC64-44RIB SS	119	14612	20.9	3644 *	26670	1.1	0.74 *
Dekalb	DKC68-69 VT2P	114	17014	24.3	3289	28016	1.3	0.69
Dekalb	DKC69-16 SS	118	16058	22.9	3381	27122	0.5	0.70
Dekalb	DKC69-99							
Dekalb	TRECEPTA	119	18797	26.8	3263	30676 *	0.9	0.69
Dekalb	DKC70-64 SS	119	18319	26.2	3076	28198 *	0.8	0.66
Dyna-Gro	D55QC73	120	16086	23.0	3656 *	29423 *	1.6	0.74 *
Dyna-Gro	D55VC80	115	17639	25.2	3675 *	32427 *	1.5	0.74 *
Dyna-Gro	D57VC17	115	17840	25.5	3279	29206 *	2.1 *	0.69
Dyna-Gro	D58QC72	117	19271 *	27.6 *	3148	22810	0.9	0.67
Dyna-Gro	D58SS65	118	18962	27.1	3328	31557 *	1.0	0.70
Local Seed	LC1688 SSX	118	17738	25.3	3405	30169 *	1.1	0.71

Company	Hybrid	Relative maturity	Total Production	Estimated silage production (35% DM)	Milk production per ton	Milk production per acre	Disease score	NE _l
Local Seed	LC1898 TC	116	18076	25.8	3263	29470 *	1.3	0.69
Local Seed	LC1506 VT2P	118	17583	25.1	3723 *	32766 *	1.4	0.76 *
Local Seed	LC1707 VT2P	115	16980	24.3	3347	28284 *	1.3	0.70
Local Seed	LC1806 VT2P	117	17700	25.3	3415	30295 *	1.3	0.71
MorCorn	MC 4255	117	16638	23.8	3648 *	30401 *	1.2	0.74 *
MorCorn	MC 4319	112	16574	23.7	3545 *	29390 *	1.4	0.73 *
MorCorn	MC 4670	113	17578	25.1	3259	28629 *	0.8	0.68
MorCorn	MC 4725	116	19108	27.3 *	3243	30994 *	1.6	0.68
Phoenix	6507A3	117	17491	25.0	3711 *	32472 *	2.1 *	0.75 *
Phoenix	6542A4	115	20107 *	28.7 *	3169	31906 *	1.3	0.67
Phoenix	7402A4	116	20368 *	29.1 *	3207	32679 *	1.1	0.68
Pioneer	P1847 VYHR	118	18520	26.5	3317	22983	1.1	0.69
Pioneer	P1903 YHR	118	17326	24.7	3441	29777 *	1.4	0.71
Seedway	SW 8100GENSS (RIB) - Smartstack	118	16474	23.5	3292	27023	1.9 *	0.69
Seedway	SW7560GENVT2P	115	15826	22.6	3485	27589	1.6	0.72
Seedway	SW8109VIP3111	117	18498	26.4	3194	29523 *	1.3	0.68
Sun Prairie Seeds	SP2928 3000GT	117	15891	22.7	3340	19657	0.8	0.69
Syngenta	NK1573-5222	116	16659	23.8	3678 *	30674 *	1.3	0.75 *
Syngenta	NK1677-3110	115	18211	26.0	3285	29979 *	1.8	0.69
Syngenta	NK1748-3110	116	18015	25.7	3193	28751 *	1.5	0.68
Syngenta	NK1808 3111	117	21780 *	31.1 *	3414	36781 *	.	0.71
UF	UFR 197	125	16584	23.7	3034	18634	0.6	0.65
UF	UFR 299	125	14333	20.5	3196	22885	0.9	0.67
Mean			17403	24.8	3379	28140	1.3	0.70
SE			1059	1.7	91	3674	0.3	0.01

* 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
1024VIP	77.4	*	8.3		76.6	*	28.2	*	6.3	24.0		43.6		23.6		54.2	*		
85VT2P	71.5		7.6		73.8		25.3		6.0	26.9		48.3		24.2		50.2			
88VT2P	72.4		7.4		72.2		24.6		5.4	28.4	*	50.4	*	25.3		50.1			
908VIP	76.2	*	8.3		74.5		24.3		6.9	26.0		46.7		24.0		51.5	*		
A1367-3220GT	72.9		7.7		75.9	*	27.6	*	5.4	25.2		45.9		24.1		52.6	*		
A4465-3110GT	76.0	*	9.1		76.2	*	25.9		7.3	23.5		44.5		23.0		51.7			
A4467-3220GT	73.5		8.4		76.9	*	26.2		6.8	24.2		45.6		24.3		53.8	*		
A7768-3110GT	72.5		8.3		74.4		22.3		6.3	27.6	*	48.6	*	24.7		51.0			
A8868 VT2Pro	72.0		7.7		75.9	*	27.5	*	5.7	24.7		45.4		23.2		51.4			
S5700	73.7		8.0		76.2	*	31.0	*	5.1	23.1		42.4		20.7		48.9			
S5900 vt2p	75.2	*	10.2	*	74.0		21.2		7.9	24.9	*	45.7		22.0		48.3			
DKC64-44RIB SS	77.4	*	10.5	*	76.3	*	25.4		6.1	23.0		43.0		21.5		50.1			
DKC68-69 VT2P	72.8		7.4		74.6		28.6	*	4.2	25.1		45.7		22.5		49.4			
DKC69-16 SS	74.2		8.6		74.9		26.7		5.4	24.5		45.2		22.1		48.9			
DKC69-99 TRECEPTA	72.2		6.8		73.8		28.7	*	4.5	25.3		46.2		22.2		48.0			
DKC70-64 SS	70.0		8.7		71.1		21.4		7.4	26.9		48.7	*	22.4		46.1			
D55QC73	77.8	*	10.3	*	77.3	*	25.5		6.8	22.9		42.3		21.6		51.2			
D55VC80	78.0	*	9.8	*	77.7	*	28.3	*	6.2	21.4		41.3		20.2		48.9			
D57VC17	72.5		7.8		75.5		29.4	*	5.0	23.7		44.2		21.3		48.3			
D58QC72	71.4		8.4		74.2		22.5		6.8	26.9		47.7		23.6		49.5			
D58SS65	72.8		8.0		76.4	*	30.6	*	5.3	22.5		42.2		20.4		48.4			
LC1688 SSX	74.3		8.0		77.6	*	32.3	*	4.6	22.0		41.5		20.9		50.3			
LC1898 TC	72.3		7.7		75.2		27.4	*	5.6	24.4		45.4		22.3		49.3			
LC1506 VT2P	77.7	*	9.6	*	79.3	*	31.2	*	5.5	20.2		38.8		20.7		53.3	*		
LC1707 VT2P	73.8		7.8		75.5		28.2	*	5.0	24.2		45.3		22.6		50.1			
LC1806 VT2P	74.3		7.9		77.0	*	31.6	*	5.7	21.7		42.7		21.9		51.3			
MC 4255	77.2	*	8.2		78.8	*	31.7	*	5.8	20.4		40.4		21.0		52.1	*		
MC 4319	75.6	*	8.2		74.3		26.0		6.7	24.7		45.0		21.8		48.4			
MC 4670	72.5		8.0		75.2		27.0		5.5	25.0		46.1		23.3		50.5			
MC 4725	72.0		7.7		75.2		26.8		5.3	24.9		45.9		22.4		48.7			
6507A3	77.9	*	7.8		78.0	*	33.6	*	5.1	21.2		40.8		21.4		52.6	*		

Hybrid	TDN	CP	IVTDMD30	Starch	WSC	ADF	aNDF	dNDF30	NDFD30
6542A4	70.8	6.5	75.3	30.3 *	4.4	26.2	45.9	23.8	52.1 *
7402A4	71.8	7.5	74.6	27.4 *	5.2	26.1	47.4	25.0	53.0 *
P1847 VYHR	73.2	7.6	77.0 *	28.9 *	5.4	23.8	44.3	22.9	51.7 *
P1903 YHR	74.7	7.6	78.2 *	32.7 *	4.5	22.4	42.4	22.2	52.4 *
SW 8100GENSS (RIB) - Smartstack	72.9	8.1	75.8 *	27.8 *	4.8	24.9	45.4	23.1	51.1
SW7560GENVT2P	75.2 *	8.5	77.4 *	29.0 *	5.3	22.8	43.2	22.1	51.4
SW8109VIP3111	71.7	7.7	74.0	26.3	5.5	26.4	47.8	24.7	51.8 *
SP2928 3000GT	73.9	9.0	75.2	27.2	5.4	24.5	44.3	21.4	48.7
NK1573-5222	77.8 *	9.9 *	75.8 *	27.4 *	6.3	22.7	42.6	21.4	50.3
NK1677-3110	73.4	8.1	75.5	25.2	5.2	26.8	47.5	25.6	53.9 *
NK1748-3110	71.7	7.3	73.4	26.7	5.1	27.0	48.1	24.2	50.3
NK1808 3111	74.8	9.0	76.8 *	29.5 *	6.3	22.4	43.0	23.0	53.5 *
UFR 197	70.0	8.9	71.8	15.6	8.8 *	28.9 *	52.6 *	25.8 *	49.1
UFR 299	72.8	8.5	73.5	16.6	6.5	30.2 *	54.1 *	28.0 *	51.8 *
Mean	74	8.3	75.5	27.0	5.8	24.6	45.2	22.9	50.8
SE	1.2	0.5	1.5	2.6	0.5	1.7	2.4	0.9	1.2

* 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:

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 March 12, 2020

Planting rate was 30,628 K/Acre, 30-inch rows

Fertilizer Application LBS/Acre -N 270; P 56; K 211; Mg 16; S 36; Mn 10; Zn 4; divided in popup starter and 4 other applications; last application over irrigation

Pesticide application - Counter at planting, with Atrazine, 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 June 17 and June 23, 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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