

2018

Long Season Corn Silage Performance Trial Summary

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2018 Corn Silage Performance Trials Summary

Conducted by Dr. Heather Darby and the University of Vermont Northwest Crops and Soils Program

Long season corn (96-110 day relative maturity) silage hybrids in Alburgh, VT

Planting Date: 05-17-18

Harvest Date: 09-19-18



Company/Brand	Hybrid	Trait Code †	RM	Harvest Population plants ac ⁻¹	DM %	Yield, 35% DM tons ac ⁻¹	Starch % DM	CP % DM	Lignin % DM	NDF % DM	30 hr NDFD % NDFom	CNCPS Predicted Milk Yield lbs day ⁻¹	CNCPS Predicted DMI lbs day ⁻¹
Dekalb	DKC47-27RIB	16	97	29621	39.5	21.7	40.6	7.5	2.9	34.5	56.9	107.1	61.5
Growmark FS	FS 46R77SS	12	96	31508	38.5	22.5	33.6	7.1	3.3	40.0	53.6	87.8	54.6
Augusta Seed Corp.	A2448	10	98	31944	37.7	24.2	36.9	6.9	3.3	36.8	51.4	89.8	55.1
Dairyland	HiDF-3202P	11	102	34122	37.3	24.5	32.0	7.4	3.1	40.7	56.9	96.3	58.0
Dairyland	HiDF-3197RA	13	97	31363	37.3	20.5	36.8	7.6	2.9	38.0	57.2	103.0	60.2
Hubner	H6124RCSS	14	96	30637	37.1	22.4	35.9	7.1	3.1	37.7	54.7	98.4	58.7
Channel Bio, LLC	197-90STXRIB	14	97	33106	37.0	23.4	33.1	7.0	3.5	40.5	53.1	84.9	53.5
Hubner	H6219RCSS	14	100	33686	36.9	23.1	34.9	7.1	3.1	38.6	56.3	100.0	59.2
Syngenta NK	NK9738-3220	10	97	32380	36.7	26.9	33.3	7.6	3.3	39.0	53.9	89.4	55.0
Doebler's	4115AMXT	5	101	30347	36.4	26.2	35.7	7.1	3.1	38.1	55.4	100.1	59.3
Dekalb	DKC51-40RIB	16	101	32960	36.0	24.2	35.0	6.9	3.1	39.2	55.6	95.0	57.2
CROPLAN	3899	16	98	32815	35.8	28.0	32.7	6.9	3.3	41.5	54.7	89.9	55.6
Augusta Seed Corp.	A3750	8	100	32380	35.8	21.9	37.2	7.3	2.8	35.7	57.4	107.2	61.6
Dekalb	DKC50-09RIB	16	100	31508	35.7	24.3	38.8	7.2	2.8	35.5	57.2	106.9	61.5
Masters Choice	MCT4632	8	96	29911	35.5	19.1	36.0	7.6	3.0	36.2	55.1	99.7	58.9
Local Seed Company	ZS9725 VIP3111	9	97	31073	35.2	24.7	36.3	7.1	3.3	37.9	53.6	91.6	55.8
Channel Bio, LLC	202-81STXRIB	14	102	31508	35.1	21.8	34.3	7.3	3.1	39.7	56.4	96.1	57.8
Masters Choice	MCT4934	9	99	30492	34.9	24.1	32.7	7.3	3.0	38.9	57.1	99.4	59.3
Growmark FS	FS 49R79SS	12	99	30056	34.9	23.7	33.6	7.4	3.3	39.1	54.4	90.6	55.7
Doebler's	3618AMXT	5	96	31508	34.7	22.5	32.3	7.2	3.3	41.3	55.5	90.8	56.1
Hubner	H6225RCSS	14	102	30782	34.5	22.6	33.9	7.0	3.3	39.3	53.5	92.3	56.4
Mycogen	F2F499	12	99	30347	34.3	23.8	38.9	7.5	2.4	34.7	63.7	122.0	67.2
Pioneer	P9998AMXT	5	99	31508	34.2	21.8	35.0	7.6	3.1	37.2	55.8	99.1	58.9
Doebler's	4018AMXT	5	100	32525	34.2	19.5	31.1	6.9	3.2	42.0	57.2	94.7	57.5
Albert Lea Viking	O.79-00	1	100	28604	33.3	22.1	38.3	7.3	3.0	35.8	55.0	100.0	58.9
CROPLAN	4004	1	100	30637	33.1	22.5	34.8	6.9	3.1	40.1	55.4	91.7	55.9
Wolf River Valley	3900FL	17	100	28024	33.0	23.2	24.2	7.3	3.8	45.9	53.3	74.8	49.8
Mycogen	BMR97B37	13	97	36736	32.6	21.2	29.6	7.1	2.8	41.9	65.4	110.3	63.2
		96-102 day	99	31503	35.6	23.1	34.6	7.2	3.1	38.8	55.9	96.8	57.9

Table continued below

Company/Brand	Hybrid	Trait Code †	RM	Harvest Population	DM	Yield, 35% DM	Starch	CP	Lignin	NDF	30 hr NDFD	CNCPS Predicted Milk Yield	CNCPS Predicted DMI
				plants ac ⁻¹	%	tons ac ⁻¹	% DM	% DM	% DM	% DM	% NDFom	lbs day ⁻¹	lbs day ⁻¹
Channel	210-98STXRIB	14	110	30637	30.8	27.2	31.6	7.1	3.3	41.7	55.0	88.9	55.1
Masters Choice	MCT5790	1	107	28750	31.6	22.5	31.2	7.7	2.9	39.7	59.3	101.5	60.0
Growmark FS	FS 55R25SS ³	12	105	31073	32.1	24.3	30.0	7.5	3.3	40.8	55.0	92.2	56.8
Doebler's	5018AM	3	110	32234	32.2	26.2	32.3	7.3	3.2	39.8	56.2	97.0	58.3
Doebler's	4717AMX	4	107	29330	32.8	22.2	35.9	7.5	2.9	36.7	57.6	105.3	60.9
CROPLAN	4549	1	105	32234	32.9	21.1	35.1	7.3	3.0	37.9	57.5	99.6	58.8
Doebler's	4318AMXT	5	103	30782	33.0	22.4	33.0	7.2	3.2	39.3	54.8	94.2	57.1
Albert Lea Viking	O.48-08GS	1	108	32960	33.1	23.7	34.9	7.6	3.1	38.6	55.6	95.5	57.5
Seedway	SW6614RR	2	109	32815	33.1	20.2	33.3	7.0	3.5	40.6	52.4	85.8	53.8
Dekalb	DKC54-40RIB	16	104	31363	33.3	22.1	32.0	6.9	3.4	40.9	53.6	88.0	54.7
Channel	209-15STXRIB	14	109	33396	33.4	27.7	37.0	7.5	3.1	37.0	54.7	94.6	56.7
Dyna-Gro	D49VC70	15	109	30492	33.4	22.3	34.0	7.6	2.9	37.5	58.0	101.0	59.3
Hubner	H6257RCSS	14	105	30928	33.5	21.7	31.9	7.4	2.9	38.9	58.4	101.4	59.7
Channel	203-01STXRIB	14	103	30202	33.8	20.8	32.7	7.1	3.1	40.6	57.3	96.7	58.4
Pioneer	P0789AMXT	5	107	31073	33.8	21.2	34.6	7.5	3.4	39.0	53.0	89.5	55.2
Dekalb	DKC57-75RIB	14	107	32670	33.9	23.9	33.0	7.0	3.3	40.6	55.2	91.6	56.2
Pioneer	P0414AM	3	104	31654	34.0	24.6	36.9	7.3	2.9	36.9	57.1	103.6	60.3
Masters Choice	MCT5371	6	103	31363	34.3	22.6	31.6	7.0	3.2	40.1	55.8	92.0	56.1
Dekalb	DKC59-07RIB	14	109	30782	34.4	26.1	35.0	7.0	3.2	37.8	54.2	92.8	56.1
Channel	206-11STXRIB	14	106	32815	35.5	24.7	34.9	7.3	3.0	38.4	57.4	98.0	58.3
Seedway	SW5440GENSS	14	105	30782	35.5	22.5	32.5	7.1	3.4	40.6	53.0	87.3	54.5
Seedway	SW5554GT	6	105	28314	35.6	25.1	36.8	7.0	2.8	37.4	57.4	103.8	60.5
Albert Lea Viking	O.51-04GS	1	104	29766	35.7	21.1	34.7	6.6	3.1	39.1	55.1	94.9	57.0
Growmark FS	FS 53R85SS	12	103	31073	35.8	24.2	35.1	7.0	3.2	38.3	55.5	97.8	58.3
Channel	207-90STXRIB	14	107	30928	36.1	24.2	34.9	7.6	3.2	38.9	55.7	92.9	56.4
Syngenta NK	NK0968-3000GT	7	109	32380	36.7	24.0	32.3	7.1	3.2	41.0	57.1	95.0	57.4
Local Seed Company	LC0488 SXRIB	14	104	31218	38.9	25.6	34.1	6.8	3.1	39.5	55.6	95.0	57.4
		103-110 day	106	31186	34.1	23.5	33.8	7.2	3.1	39.2	55.8	95.4	57.4
		LSD (0.10)	N/A	NS	2.9	NS	4.8	NS	0.3	3.9	3.0	12.0	4.4
		Overall Mean	103	31347	34.8	23.3	34.2	7.2	3.1	39.0	55.9	96.1	57.7

Values in **bold** indicate the top performer for that measure

NS = Not significant

N/A = Not applicable; statistical analysis not performed on the parameter

KEY

RM:	Relative maturity
DM:	Dry matter content
CP:	Crude protein
NDF:	Neutral detergent fiber content
30 hr NDFD:	Digestible NDF after 30 hrs
CNCPS Milk Yield:	Daily milk yield predicted using the Cornell Net Carbohydrate and Protein System software
CNCPS DMI:	Daily dry matter intake predicted using the Cornell Net Carbohydrate and Protein System software

Trait Code†	Trait details
1	Conventional
2	Roundup Ready; Roundup Ready Corn 2 glyphosate resistance
3	AcreMax protection from black cutworm, European corn borer, fall armyworm, lesser corn stalk borer, southern corn stalk borer, southwestern corn borer, sugarcane borer, and western bean cutworm; suppresses corn earworm and common stalk borer with resistance to Liberty® herbicides
4	AcreMax Xtra protection from black cutworm, European corn borer, fall armyworm, lesser corn stalk borer, southern corn stalk borer, southwestern corn borer, sugarcane borer, and western bean cutworm; suppresses corn earworm and protects from larval damage from Mexican corn rootworm, northern corn rootworm, and western corn rootworm with resistance to glufosinate herbicides
5	AcreMax Xtreme AcreMax XTreme protection from black cutworm, European corn borer, fall armyworm, stalk borer, Southern corn borer, Western bean cutworm, corn earworm, and corn rootworm with resistance to glufosinate and glyphosate herbicides
6	Agrisure GT resistance to glyphosate herbicides
7	Agrisure 3000 GT protection from corn rootworm and European corn borer with resistance to glyphosate herbicides
8	Agrisure Viptera 3110 and 3110A protection from European corn borer, southwestern corn borer, southern cornstalk borer, corn earworm, fall armyworm, dingy cutworm, beet armyworm, black cutworm, western bean cutworm, sugarcane borer, common stalk borer; resistance to glyphosate and glufosinate herbicides
9	Agrisure Viptera 3111 protection from black cutworm, corn earworm, European corn borer, fall armyworm, stalk borer, Southern corn borer, true armyworm, Western bean cutworm, and corn rootworm with resistance to glyphosate and glufosinate herbicides
10	Agrisure Viptera 3220 EZ Refuge protection from black cutworm, corn earworm, European corn borer, fall armyworm, stalk borer, Southern corn borer, true armyworm, and Western bean cutworm with resistance to glufosinate herbicides
11	Powercore protection from black cutworm, corn earworm, European corn borer, fall armyworm, and Southwestern corn borer
12	SmartStax protection from black cutworm, corn earworm, European corn borer, fall armyworm, stalk borer, Southern corn borer, Western bean cutworm, and corn rootworm with resistance to glyphosate and glufosinate herbicides
13	SmartStax Refuge Advanced protection from black cutworm, corn earworm, European corn borer, fall armyworm, stalk borer, Southern corn borer, Western bean cutworm, and corn rootworm with resistance to glyphosate and glufosinate herbicides with 5% refuge seed in the bag
14	SmartStax RIB Complete Genuity® SmartStax® RIB Complete® provides broad spectrum protection against corn earworm and other ear-feeding insects as well as fall armyworm, European corn borer, and corn earworm with multiple modes of action; glyphosate herbicide tolerance ((Roundup Ready®, Touchdown®) and glufosinate-ammonium (LibertyLink®)) with 5% refuge seed in the bag
15	VT Double Pro Genuity® VT Double PRO™ provides protection against corn earworm and other ear-feeding insects as well as fall armyworm, European corn borer, and corn earworm
16	VT Double Pro RIB Complete Genuity® VT Double PRO™ RIB Complete protection against corn earworm and other ear-feeding insects as well as fall armyworm, European corn borer, and corn earworm with 5% refuge seed in the bag
17	Floury, Leafy increased fiber digestibility and 25% of kernels produced have no hard starch