

2016 Summary - Short Season Corn Silage Performance Trial

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

Short season corn (80-97 day relative maturity) silage hybrids in Alburgh, VT

Planting Date: 5/17/2016

Harvest Dates: 9/19/2016



Company	Variety	Traits***	RM days	DM %	Silage Yield* tons ac ⁻¹	CP** %	ADF** %	NDF** %	48 hr NDFD %	NE _L Mcal lb ⁻¹	TDN %	Milk lbs ton ⁻¹	Milk lbs ac ⁻¹
Mycogen	2D095	HXT, LL, RR2	80	40.5	26.0	8.94	27.3	47.0	67.0	0.67	73.9	3209	26953
Channel Bio, LLC	185-15VT2PRIB	VT2PRIB	85	40.8	22.2	8.55	23.0	39.7	66.8	0.68	74.3	3300	25682
Mycogen	TMF2R198	LL, RR2, RA, SSX	85	39.6	26.1	9.89	23.9	42.1	69.0	0.73	78.0	3581	30763
Mycogen	2G165	Agrisure 3122, LL, GT	85	39.3	26.5	8.79	23.2	41.3	68.8	0.72	77.4	3538	27266
Chemgro Seeds	4668G3A	Artesian 3011A	86	37.7*	19.9	8.34	23.0	38.3	68.2	0.70	75.8	3432	33086
DEKALB-Monsanto	DKC36-30	VT2PRIB	86	38.4	26.3	9.74	24.3	41.4	66.9	0.69	75.3	3370	23395
Mycogen	TMF86H77 RA	SSX, LL, RA, RR2	86	40.8	21.1	7.95	24.5	44.8	71.2	0.70	76.4	3433	23967
Seedway	SW 2754-RR	RR	86	38.6	21.6	8.37	25.4	44.1	69.3	0.72	77.7	3543	25093
T.A. Seeds	TA266-28RIB	SSX	86	40.0	25.0	8.65	25.9	44.6	69.0	0.72	77.6	3525	25513
Channel Bio, LLC	187-49VT2PRIB	VT2PRIB	87	38.0	27.4	7.25	25.0	45.4	72.5	0.69	75.4	3343	31155
Chemgro Seeds	4775RDP	VT2PRIB	87	38.8	21.1	8.19	24.7	45.1	72.3	0.72	77.7	3530	23950
Channel Bio, LLC	189-03VT2PRIB	VT2PRIB	89	37.9	19.4	7.55	24.4	42.8	72.0	0.73	78.0	3574	29301
DEKALB-Monsanto	DKC39-27	SSRIB	89	39.1	31.1	8.10	22.6	40.0	71.0	0.72	76.9	3508	23129
T.A. Seeds	TA089-00	None	89	40.6	25.6	8.29	26.3	44.0	69.9	0.71	77.1	3484	25761
Chemgro Seeds	5018G3	Agrisure 3000 GT	90	40.3	19.7	8.22	24.2	42.4	69.6	0.72	77.8	3562	28069
Channel Bio, LLC	190-13VT2RIB	VT2PRIB	90	38.4	21.6	7.03	23.8	43.6	72.5	0.72	77.5	3527	28374
Chemgro Seeds	5141RRN	RR	91	37.1*	23.5	7.60	24.8	43.8	71.0	0.73	78.0	3567	22277
Mycogen	TMF91Q25	SSX, LL, RR2	91	40.5	21.5	6.19	30.8	55.3	70.4	0.65	72.2	3065	28424
Seedway	SW 3019	GT, CB, LL	91	37.6*	23.5	8.23	26.6	44.9	70.4	0.71	76.7	3456	24208
Seedway	SW 3654-RR	RR	91	38.8	20.3	8.17	25.4	45.7	71.7	0.70	76.3	3416	23544
Albert Lea Seed	Viking 42-92N	None	92	39.1	19.5	7.07	23.9	44.0	74.3	0.72	77.8	3550	28909
Channel Bio, LLC	192-09VT3PRIB	VT3PRIB	92	39.2	20.3	7.51	25.4	42.9	68.3	0.73	78.0	3575	38830
Chemgro Seeds	5245RDP	VT2PRIB	92	38.1	22.7	6.74	28.3	51.0	70.8	0.69	76.2	3380	33095
Mycogen	F2F345	SSX, LL, RR2, RA	92	37.8*	23.0	8.34	24.0	43.1	70.1	0.72	77.3	3524	29204
T.A. Seeds	TA370-53EZ	None	92	37.1*	32.9	7.34	24.6	42.1	68.5	0.73	77.9	3572	39334
T.A. Seeds	TA387-22DPRIB	VT2PRIB	92	38.3	24.9	7.95	23.6	42.3	68.4	0.72	77.2	3511	41795
Channel Bio, LLC	193-53STXRIB	SSRIB	93	39.4	29.7	8.49	23.2	41.4	70.7	0.73	78.0	3587	27275
DEKALB-Monsanto	DKC43-48	VT3PRIB	93	38.0	33.5	8.07	24.9	42.0	69.8	0.73	78.0	3582	31701
Channel Bio, LLC	194-14VT2PRIB	VT2PRIB	94	39.7	31.3	7.75	23.1	41.7	72.0	0.73	78.0	3583	25557
DEKALB-Monsanto	DKC44-13	SSRIB	94	38.0	32.6	7.81	29.2	51.3	69.7	0.70	76.7	3402	31292
Mycogen	TMF94L37	SSX, LL RR2	94	35.7*	24.5	8.08	28.7	43.8	66.4	0.72	77.6	3501	41119
Mycogen	TMF2L395	RR2	94	34.0*	30.7	7.47	25.2	43.8	72.0	0.72	77.3	3510	34101

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Company	Variety	Traits***	RM days	DM %	Silage Yield* tons ac ⁻¹	CP** %	ADF** %	NDF** %	48 hr NDFD %	NE _L Mcal lb ⁻¹	TDN %	Milk lbs ton ⁻¹	Milk lbs ac ⁻¹
DEKALB-Monsanto	DKC45-07	SSRIB	95	36.4*	24.8	9.28	25.8	42.2	69.2	0.73	78.0	3580	38414
DEKALB-Monsanto	DKC45-65	SSRIB	95	37.2*	30.6	8.56	25.8	41.2	67.1	0.73	78.0	3588	38456
Mycogen	F2F379	SSX, LL, RR2, RA	95	38.4	22.2	8.77	24.4	40.4	70.1	0.72	77.4	3532	37461
DEKALB-Monsanto	DKC46-20	VT3PRIB	96	38.7	20.2	8.60	23.3	43.4	70.0	0.73	78.0	3595	32135
Mycogen	TMF2Q419	SSX, LL, RR2, RA	96	38.9	27.0	8.41	26.7	43.6	66.2	0.73	78.0	3569	34052
Channel Bio, LLC	197-68STXRIB	SSRIB	97	36.8*	27.6	8.44	26.1	45.4	69.1	0.72	77.6	3525	40391
Chemgro Seeds	5775GTCTB	GT, CB, LL	97	36.3*	25.4	9.45	23.2	40.3	70.7	0.72	77.2	3534	36702
LSD (0.1)				1.47	5.80	1.03	2.92	5.07	3.44	0.03	1.86	167	6321
Trial Mean				33.5	24.9	8.20	25.1	43.8	69.7	0.71	77.0	3491	30506

Top performing varieties are indicated in **bold**

*Silage yields are compared on a 35% dry matter basis

**CP, ADF, NDF, and Starch are compared on a dry matter basis

LSD (0.1): Least Significant Differences (LSDs) at the 0.10 level of significance are shown

*****Traits:**

Artesian 3011A: Protection from corn borer and corn rootworm, Agrisure Artesian drought tolerance and herbicide tolerance.

Agrisure® 3122: Protects against corn borer, rootworm, glyphosate tolerant, 5% integrated, single-bag refuge.

CB: Corn borer resistant.

GT: Glyphosate tolerant.

HXT: Herculex Xtra®, provides season-long insect protection from corn borer, corn rootworm, black cutworm, western bean cutworm, and fall army work.

LL: Glufosinate-ammonium herbicide (LibertyLink®) tolerant.

RA: Refuge Advanced® contains refuge seed mixed in with hybrid seed eliminating the need to plant a separate refuge.

RR: Roundup Ready corn is glyphosate herbicide (Roundup®) tolerant.

RR2: Roundup Ready corn is glyphosate herbicide (Roundup®, Touchdown®) tolerant.

SSRIB: 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®)). Bags of this seed also contain refuge seed mixed in eliminating the need for a separate refuge (Refuge-in-bag).

SSX: SmartStax corn provides a broad spectrum of insect control, using multiple modes of action, as well as glyphosate herbicide (Roundup Ready®, Touchdown®) and glufosinate-ammonium (LibertyLink®) tolerance.

VT2PRIB: Genuity® VT Double PRO™ RIB Complete® provides protection against corn earworm and other ear-feeding insects as well as fall armyworm, European corn borer, and corn earworm. Bags of this seed also contain refuge seed mixed in, eliminating the need for a separate refuge (Refuge-in-bag).

VT3PRIB: Genuity® VT Triple PRO™ - same as double with addition of rootworm trait.

Key

RM: Relative maturity

DM: Dry matter

CP: Crude protein

ADF: Acid detergent fiber

NDF: Neutral detergent fiber

48hr NDFD: Digestible neutral detergent fiber at 48 hours

NE_L: Net energy from lactation

TDN: Total digestible nutrients

For a full report of the short season corn trial and additional research reports, please visit our website:

<http://www.uvm.edu/extension/cropsoil/>. For more information, contact heather.darby@uvm.edu.