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CORN SILAGE YIELD AND DIGESTIBILITY TRIAL

In the seventeenth year of our trial, we evaluated forty-five seed varieties from eleven seed companies on six Western New York farms. The host farms were Luce Dairy (Varysburg, short and mid season varieties), R & D Crowell Farm, LLC (South Dayton, short and mid season varieties), Verratti Farms, LLC (Gasport, short and mid season varieties), Hi-Land Farms, LLC (Wyoming, long season varieties), Hy-Hope Dairy (Stafford, long season varieties), and Maple Ridge Farm (North Java, long season varieties).

All of our test plot results for this and previous years are available in greater detail at our interactive test plot [website](https://testplot.azurewebsites.net) which allows you to easily sort, filter, and graph the results of our variety test plots. It is available at <https://testplot.azurewebsites.net>. 2016 soybean and partial corn grain results are also currently available. The grain trial newsletter will be published after our last corn grain test plot is harvested.

Due to the dry summer, our results vary widely between farms and between the well drained and marginally drained test plots within each farm. While the results below should be helpful when selecting silage varieties, our test plot website can be a useful tool for tracking variety performance at individual locations.

Two plots were located on each farm, one in well drained soil and the other in marginally drained soil. The cooperator farm planted the corn; we harvested the crop. Two 17 foot 4 inch areas located at 60-foot intervals from each other were hand harvested and weighed for each variety. A subset of three plants from each harvested section (for a total of 6) were gathered and chopped using a chipper shredder. All samples were then vacuum packed and sent to Cumberland Valley Analytical Lab for 30-hour in-vitro analysis.

Tables A-C compare plant yield, dry matter, composition, fiber digestibility and the combined effect of these factors on milk production using the Milk 2006 index developed by the University of Wisconsin. NDF and starch are expressed as a percentage of total dry matter while NDF digestibility (DNDF) is listed as a percentage of total plant fiber. The varieties are sorted by day length.

Tables A-C: Average Yield, Digestible NDF (DNDF), and Starch
Table A: Short Season (86-94 day)

Company	Variety	Day Length	% DM	Yield 30% DM	Starch % DM	NDF % DM	DNDF %	Milk Per Ton Index	Milk Per Acre Index
GrowmarkFS-InVISION	FS36R47VT2-PRIB	86	43	23.4	41.2	33.1	61.35	3295	23062
Hubner	H4046RC2P	88	46	22.8	43.6	31.4	63.81	3303	22417
Dekalb	DKC 39-27RIBSS	89	44	19.1	42.5	32.2	61.7	3286	18669

Syngenta	N27P	90	43.1	21.8	41.7	32.4	61.47	3291	21246
GrowmarkFS-InVISION	FS41R57SS RIB	91	42.6	23.2	40.7	33.2	61.95	3302	22504
Seedway	SW 3654RR	91	43.9	21.1	39.5	34.8	61.51	3254	20190
Axis	42P55 GENSS RIB	92	42.4	21.2	39.3	34.8	62.13	3296	20562
Dyna-Gro	D32SS56RIB	92	44	23.3	42.4	32.7	62.2	3329	22733
Syngenta	N29T	92	45	22.5	42.4	32.5	60.99	3259	21884
Dekalb	DKC 43-48RIBVT3P	93	44.1	25.1	41.5	33.8	60.66	3240	23929
GrowmarkFS-InVISION	FS43R43SS RIB	93	43.4	25.2	41.5	33.9	60.93	3260	24163
Hubner	H6157RCSS	94	40.7	25.4	40.7	34	61.53	3329	24994
Mycogen	TMF94L37	94	42.2	25.9	38.9	36.1	60.47	3210	24468

Table B: Mid Season (94-99 day)

Company	Variety	Day Length	% DM	Yield 30% DM	Starch % DM	NDF % DM	DNDF %	Milk Per Ton Index	Milk Per Acre Index
Dekalb	DKC 45-07RIBSS	95	41.6	26.5	41.9	32.9	61.09	3307	25871
Syngenta	N35T	95	42.4	23.7	42.5	32.7	59.53	3276	22892
GrowmarkFS-InVISION	FS46R64SS RIB	96	43.3	25.1	41.9	33.1	62.38	3278	24321
Seedway	SW 3768 GENSS	96	42.8	23.7	41.4	32.6	63.32	3332	23099
Hubner	H6187RCSS	97	42.2	22.6	42.1	31.9	62.48	3363	22182
Mycogen	TMF2Q419	97	43.9	23.6	44	31.2	64.52	3355	23208
Mycogen	BMR97B34	97	40	22.3	40.4	33.6	69.07	3469	22909
Channel	198-98	98	40.1	23.9	41.5	33.2	64.59	3424	24163
Dekalb	DKC 48-56SS	98	40.4	24.1	40.3	34.4	62.12	3366	23853
Channel	199-72	99	40.9	26.3	41.6	33	60.77	3349	26133
Doebler's	3916GRQ	99	41.7	26.3	40.7	32.9	62.04	3307	25792
Dyna-Gro	D39RR12	99	41.6	23.5	40.3	33.4	62.44	3355	23259
GrowmarkFS-InVISION	FS49R44SS RIB	99	42.7	24.1	39.7	34.6	60.89	3252	23051
Hubner	H6191RCSS	99	41.2	24.4	40.5	33.9	61.85	3334	23939
Mycogen	TMF99Q47	99	40.4	25.3	40.4	34.5	61.35	3332	24771
Mycogen	F2F499	99	38.8	22	40	33.1	68.4	3537	23299

Table C: Long Season (101-111 day)

Company	Variety	Day Length	% DM	Yield 30% DM	Starch % DM	NDF % DM	DNDF %	Milk Per Ton Index	Milk Per Acre Index
Seedway	SW 4018LVT3P	100	40.5	22.8	39.8	34.4	63.76	3363	23030
Hubner	H5222RC3P	101	42	22	43.5	31.5	64.1	3385	22415
Doebler's	RPM 4115AM	101	44.3	23	44.2	31.9	65.75	3321	22680
Channel	203-44	103	42.1	22.1	42.4	32.3	62.08	3326	22151
Dekalb	DKC 54-38RIB	104	42.3	23.1	43.1	31.9	62.52	3351	23365
GrowmarkFS-InVISION	FS55R25VZ3P RIB	105	40.8	24.9	41.9	32.2	62.57	3348	25236
Doebler's	RPM 563HXR	105	37.6	22.1	40.1	32.7	64.7	3521	23425
Seedway	SW 5554GTRW	105	38.4	23.1	40.8	33	63.74	3434	23888

Syngenta	N53W	105	38.7	22.3	39.1	33.4	63.55	3401	22912
Channel	207-13	107	39.9	24.6	40.1	33.8	59.7	3352	24833
Dyna-Gro	D47SS23RIB	107	41.3	23.1	43.8	31.1	63.55	3429	23890
Hubner	H5333RC3P	107	38.5	23.2	40.4	33.5	64.35	3476	24244
Dekalb	DKC 58-06SS	108	42.2	23.7	44.3	30.7	62.02	3360	24023
TA Seeds	TA583-22DPRIB	108	39.4	23.4	42.3	31.8	63.08	3477	24578
Doebler's	RPM 4917AM	109	39.8	24.6	43.5	31.8	64.2	3480	25856
Syngenta	N59B	109	35.8	24.1	38.9	33.8	63.28	3479	25212

Tables D-F compare the average yields for each variety on well-drained soils and marginally drained soils.

Tables D-F: Average Yield in Well Drained and Marginally Drained Soils

Table D: Short Season

Company	Variety	Well Drained	Marginally Drained	Difference in Yield (WD-MD)
GrowmarkFS-InVISION	FS36R47VT2PRIB	24.3	22.5	1.8
Hubner	H4046RC2P	22.7	23	-0.3
Dekalb	DKC 39-27RIBSS	19.5	18.7	0.8
Syngenta	N27P	21.4	22.2	-0.8
GrowmarkFS-InVISION	FS41R57SSRIB	22.7	23.8	-1.1
Seedway	SW 3654RR	19.6	22.6	-3
Axis	42P55 GENSSRIB	21.2	21.1	0.1
Dyna-Gro	D32SS56RIB	20.5	26	-5.5
Syngenta	N29T	23.6	21.5	2.1
Dekalb	DKC 43-48RIBVT3P	25.5	24.7	0.8
GrowmarkFS-InVISION	FS43R43SSRIB	25	25.4	-0.4
Hubner	H6157RCSS	25.4	25.4	0
Mycogen	TMF94L37	26.8	25	1.8

Table E: Mid Season

Company	Variety	Well Drained	Marginally Drained	Difference in Yield (WD-MD)
Dekalb	DKC 45-07RIBSS	26.2	26.7	-0.5
Syngenta	N35T	24.7	22.7	2
GrowmarkFS-InVISION	FS46R64SSRIB	24.3	25.9	-1.6
Seedway	SW 3768 GENSS	22.2	25.3	-3.1
Hubner	H6187RCSS	21.7	23.6	-1.9
Mycogen	TMF2Q419	23.3	24	-0.7
Mycogen	BMR97B34	22.6	22	0.6
Channel	198-98	22.5	25.4	-2.9
Dekalb	DKC 48-56SS	23.8	24.4	-0.6
Channel	199-72	26.6	26	0.6
Doebler's	3916GRQ	26.6	26	0.6

Dyna-Gro	D39RR12	22.1	24.8	-2.7
GrowmarkFS- InVISION	FS49R44SSRIB	23.4	24.9	-1.5
Hubner	H6191RCSS	24	24.8	-0.8
Mycogen	TMF99Q47	24.4	26.1	-1.7
Mycogen	F2F499	21.2	22.9	-1.7

Table F: Long Season

Company	Variety	Well Drained	Marginally Drained	Difference in Yield (WD-MD)
Seedway	SW 4018LVT3P	23.5	22	1.5
Hubner	H5222RC3P	22.7	21.4	1.3
Doebler's	RPM 4115AM	21.5	24.5	-3
Channel	203-44	21.7	22.4	-0.7
Dekalb	DKC 54-38RIB	21.9	24.3	-2.4
GrowmarkFS- InVISION	FS55R25VZ3PRIB	23.7	26.1	-2.4
Doebler's	RPM 563HXR	20.5	23.8	-3.3
Seedway	SW 5554GTRW	21.5	24.6	-3.1
Syngenta	N53W	21.1	23.5	-2.4
Channel	207-13	22.6	26.7	-4.1
Dyna-Gro	D47SS23RIB	23.4	22.9	0.5
Hubner	H5333RC3P	21.5	24.8	-3.3
Dekalb	DKC 58-06SS	22.9	24.4	-1.5
TA Seeds	TA583-22DPRIB	22.7	24.2	-1.5
Doebler's	RPM 4917AM	23.9	25.4	-1.5
Syngenta	N59B	23.1	24.9	-1.8

Before deciding on a variety, take time to look at other silage trials. We also recommend reviewing your variety selection criteria with your nutritionist and crop consultant before making your final choices.

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