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CORN SILAGE YIELD AND DIGESTIBILITY TRIAL

In the nineteenth year of our trial, we evaluated forty-six seed varieties from twelve seed companies on seven Western New York farms. For the first time in the history of our trial, we grew GMO and non-GMO varieties in separate plots. The results from the GMO and non-GMO corn will be reported separately both here and on our test plot website.

The host farms were Breezyhill Dairy, LLC (Strykersville, GMO and non-GMO, short and mid-season varieties), Edelweiss Farm (Arcade, GMO and non-GMO, short and mid-season varieties), Hi-Land Farms, LLC (Wyoming, GMO and non-GMO, long season varieties), Hy-Hope Dairy (Stafford, GMO and non-GMO, long season varieties), Park View Farm (Perry, non-GMO, all daylengths), True Farm (Perry, GMO, long season varieties), Verratti Farms, LLC (Gasport, GMO short and mid-season varieties).

All of our test plot results for this and previous years are available in greater detail at our interactive test plot [website](http://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>.

Each plot was split into two halves, 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) was 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-F 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, uNDF 240 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-F: Average Yield, Digestible NDF (DNDF), and Starch

Table A: GMO Short Season (86-92 day)

Company	Variety	Day Length	% DM	Yield 30% DM	Starch % DM	NDF % DM	DNDF % NDF	uNDF 240 %DM	Milk Per Ton Index	Milk Per Acre Index
Hubner Seed	H4062RC2P	86	39.5	23.5	34.8	39.2	55.27	11.5	3010	21189
Dekalb	DKC36-28	86	38.4	21.2	32.1	40.9	53.92	11.7	2951	18731
Masters Choice	MCT3891	88	42.4	21.7	32.5	41.7	54.25	11.9	2838	18423
Syngenta	NK8920-5122	89	36.4	23.2	33.9	40	54.02	11.9	3084	21345
DeKalb	DKC40-77	90	37.8	23.1	34.6	39.2	53.92	11.7	3080	21449
Syngenta	NK9227-3110A	92	36.7	24.3	34	39.2	55.63	11.9	3164	23101
Growmark FS LLC	FS42R88 VT2P	92	37	23.4	35	38.2	57.17	10.7	3197	22422

Table B: GMO Mid-Season (95-99 day)

Company	Variety	Day Length	% DM	Yield 30% DM	Starch % DM	NDF % DM	DNDF % NDF	uNDF 240 %DM	Milk Per Ton Index	Milk Per Acre Index
Masters Choice	MCT4572	95	37.8	26.1	34.6	39.1	54.86	11.8	3088	24145
Syngenta	NK9535-3220	95	35.7	25.5	35.4	38.1	53.85	12.2	3211	24605
Dekalb	DKC45-07	95	35.3	23.6	35.5	38.5	55.83	11.1	3196	22664
Hubner Seed	H6124RCSS	96	36	24.3	35	39.2	57.85	10.7	3248	23563
Masters Choice	MCT4632	96	35	24.9	35.4	38	61	9.9	3340	24854
Growmark FS LLC	FS46R77 SS	96	36.2	24.8	33.1	40.2	56.89	10.8	3153	23525
Mycogen Seeds	TMF2Q419	96	36.3	24.3	32.4	41.8	58.62	11.4	3141	22875
Chemgro Seeds	5776V2	97	34.4	21.1	33.4	38.9	61.54	9.4	3304	20968
Mycogen Seeds	BMR97B37	97	29.9	22.8	29.3	41.6	65.07	9	3401	23173
Hubner Seed	H6219RCSS	99	31.7	24.4	30.9	40.4	56.45	11.6	3212	23588
Masters Choice	MCT4934	99	32.6	22.7	31.9	38.8	56.26	11.5	3153	21512
Dyna-Gro Seed	D39DC43	99	33.5	25.1	33.2	39.6	58.43	10.9	3314	25046
Mycogen Seeds	F2F499	99	31.6	23.6	32.6	39.3	68.17	7.4	3525	24854
Growmark FS LLC	FS49R79 SS	99	31.6	25.3	32.4	40	56.79	11.8	3302	24947
Mycogen Seeds	TMF99Q47	99	31.9	21.7	30.5	41.6	56.46	11.2	3235	21020

Table C: GMO Long Season (100-110 day)

Company	Variety	Day Length	% DM	Yield 30% DM	Starch % DM	NDF % DM	DNDF % NDF	uNDF 240 %DM	Milk Per Ton Index	Milk Per Acre Index
Dekalb	DKC50-08	100	40.4	32.5	35.7	38	58.09	10.5	3130	30474
Dekalb	DKC51-38	101	39.6	32.1	33.4	40.1	54.97	11.4	3028	29210
Hubner Seed	H6225RCSS	102	39.9	32.3	34.6	40.3	55.27	11.8	2984	29014
Masters Choice	MCT5371	103	40	29.3	34.4	38.9	57.52	11.5	3070	26907
Growmark FS LLC	FS53R85 SS	103	41.2	31.4	35.5	38.9	56.6	11.2	3031	28523
Chemgro Seeds	6545RDP	105	39.6	31.9	33.3	41.1	55.07	12.3	3047	29188
M&W Seeds	44P86	105	41.5	31.4	34.3	40.2	53.31	13	2862	26829
Growmark FS LLC	FS55R25 SS	105	36.8	31.2	33.5	41.2	54.21	12.5	3084	28815
Dyna-Gro Seed	D49VC70	107	35.6	31.8	36.3	37.1	53.62	11.3	3328	31798
M&W Seeds	44D81	108	37.9	31.8	34	40.2	54.57	12.8	3115	29609
Dekalb	DKC60-67	110	38.3	29	34.3	40.3	52.93	13.4	3043	26403

Table D: Non-GMO Short Season (85-90 day)

Company	Variety	Day Length	% DM	Yield 30% DM	Starch % DM	NDF % DM	DNDF % NDF	uNDF 240 %DM	Milk Per Ton Index	Milk Per Acre Index
Doebler's PA Hybrids	2517XY	85	41.7	27.1	33.1	44	53.45	12.8	2793	22851
Wolf River Valley Seeds	3988FL	88	39.3	24.8	33.2	43	53.7	12.6	2840	21263
Spectrum	4046	90	35.6	25.2	32.4	43	51.14	13.7	2929	22251

Table E: Non-GMO Mid-Season (95-99 day)

Company	Variety	Day Length	% DM	Yield 30% DM	Starch % DM	NDF % DM	DNDF % NDF	uNDF 240 %DM	Milk Per Ton Index	Milk Per Acre Index
Wolf River Valley Seeds	3995FL	95	35.3	25.2	30.5	44.5	54.38	13.9	2975	22515
Hubner Seed	H3124	96	36.2	22.9	34.4	41.9	55.69	11.8	3084	21169
Hubner Seed	H3191	99	33.5	25	33.4	41.4	54.8	12.5	3237	24262
Doebler's PA Hybrids	3916XY	99	35.7	27.8	32.8	42.3	56.17	13.1	3085	25720

Table F: Non-GMO Long Season (100-109 day)

Company	Variety	Day Length	% DM	Yield 30% DM	Starch % DM	NDF % DM	DNDF % NDF	uNDF 240 %DM	Milk Per Ton Index	Milk Per Acre Index
Dyna-Gro Seed	D40CC48	100	44.1	29.8	35.2	40.9	53.32	12.2	2817	25053
Doebler's PA Hybrids	4018XY	100	39.3	31.1	34.4	40.3	59.83	10.3	3107	28878
Doebler's PA Hybrids	4115XY	101	40.6	28.8	36	39.4	60.51	10.2	3110	26720
Hubner Seed	H3257	104	38.7	29.4	34.6	39.4	55.7	10.9	3111	27388
Masters Choice	MC5790	107	35.7	29.7	33.3	39.5	58.01	11.3	3212	28578
Doebler's PA Hybrids	4917XY	109	36.9	31.4	36.8	38.5	56.41	11.4	3215	30169

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

Tables G-L: Average Yield in Well Drained and Marginally Drained Soils**Table G: GMO Short Season**

Company	Variety	Well Drained	Marginally Drained	Difference in Yield (WD-MD)
Hubner Seed	H4062RC2P	26.4	20	6.4
Dekalb	DKC36-28	21.2	21.2	0
Masters Choice	MCT3891	20.7	22.7	-2
Syngenta	NK8920-5122	23.6	22.7	0.9
DeKalb	DKC40-77	23.7	22.4	1.3
Syngenta	NK9227-3110A	25.3	23.2	2.1
Growmark FS LLC	FS42R88 VT2P	24.3	22.4	1.9

Table H: GMO Mid-Season

Company	Variety	Well Drained	Marginally Drained	Difference in Yield (WD-MD)
Masters Choice	MCT4572	27.1	24.9	2.2
Syngenta	NK9535-3220	26.8	24	2.8
Dekalb	DKC45-07	24.1	23.1	1
Hubner Seed	H6124RCSS	25.2	23.1	2.1
Masters Choice	MCT4632	24.5	25.4	-0.9
Growmark FS LLC	FS46R77 SS	23.6	26.3	-2.7
Mycogen Seeds	TMF2Q419	25.1	23.4	1.7
Chemgro Seeds	5776V2	21.6	20.5	1.1
Mycogen Seeds	BMR97B37	21.7	24	-2.3
Hubner Seed	H6219RCSS	24.2	24.6	-0.4
Masters Choice	MCT4934	24.3	20.9	3.4
Dyna-Gro Seed	D39DC43	26	24.1	1.9
Mycogen Seeds	F2F499	23.9	23.3	0.6
Growmark FS LLC	FS49R79 SS	25.2	25.4	-0.2
Mycogen Seeds	TMF99Q47	22.8	20.3	2.5

Table I: GMO Long Season

Company	Variety	Well Drained	Marginally Drained	Difference in Yield (WD-MD)
Dekalb	DKC50-08	32.5	32.6	-0.1
Dekalb	DKC51-38	30.9	33.9	-3
Hubner Seed	H6225RCSS	33.1	31.5	1.6
Masters Choice	MCT5371	29.7	28.8	0.9
Growmark FS LLC	FS53R85 SS	30.6	32.1	-1.5
Chemgro Seeds	6545RDP	30.8	33.1	-2.3
M&W Seeds	44P86	29	33.7	-4.7
Growmark FS LLC	FS55R25 SS	31.2	31.1	0.1
Dyna-Gro Seed	D49VC70	31.5	32.1	-0.6
M&W Seeds	44D81	29.9	33.6	-3.7
Dekalb	DKC60-67	28.3	29.7	-1.4

Table J: Non-GMO Short Season

Company	Variety	Well Drained	Marginally Drained	Difference in Yield (WD-MD)
Doebler's PA Hybrids	2517XY	28.2	25.8	2.4
Wolf River Valley Seeds	3988FL	25.1	24.5	0.6
Spectrum	4046	27	23.1	3.9

Table K: Non-GMO Mid-Season

Company	Variety	Well Drained	Marginally Drained	Difference in Yield (WD-MD)
Wolf River Valley Seeds	3995FL	25.3	25.1	0.2
Hubner Seed	H3124	23.9	21.6	2.3
Hubner Seed	H3191	23.2	27.1	-3.9
Doebler's PA Hybrids	3916XY	27.7	28	-0.3

Table L: Non-GMO Long Season

Company	Variety	Well Drained	Marginally Drained	Difference in Yield (WD-MD)
Dyna-Gro Seed	D40CC48	29.3	30.3	-1
Doebler's PA Hybrids	4018XY	29.6	32.7	-3.1
Doebler's PA Hybrids	4115XY	27.6	30	-2.4
Hubner Seed	H3257	28.2	30.6	-2.4
Masters Choice	MC5790	28	31.3	-3.3
Doebler's PA Hybrids	4917XY	31.4	31.5	-0.1

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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