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## **NEW YORK CORN SILAGE HYBRID TESTS – 2013**

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# NEW YORK CORN SILAGE HYBRID TESTS – 2013

Corn silage hybrids were tested at four locations in New York in 2013. We evaluated 85 to 115-day hybrids in relative maturity (RM) at the Aurora Research Farm at the Aurora Research Farm (Cayuga Co.), and at Sparta Farms in Groveland Station (Livingston Co.). We evaluated 85-105 day relative maturity (RM) hybrids at the Ron Robbins Farm in Sackets Harbor (Jefferson Co.) and at the Jon Greenwood Farm in Madrid (St. Lawrence Co.). The Aurora and Groveland Station sites average about 2450 growing degree days (GDD, 86-50° system) from May through September. The Sackets Harbor site averages about 2200 GDD and the Madrid site averages about 2100 GDD. Seed companies were invited to enter their hybrids in these tests for a fee.

## MATERIALS AND METHODS

We planted all hybrids with a 2-row plot planter at 36,000 plants/acre to achieve harvest populations of 32,000-34,000 plants/acre. The Aurora site was planted on 26 April, the Groveland Station site on 1 May, the Madrid site on 2 May, and the Sackets Harbor site on 3 May. All hybrids were grouped within a 5-day RM (i.e. 91-95 day RM, 96-100, etc.), and planted in a randomized complete block design with four replications. Each individual plot consisted of two 20-ft. rows spaced 30 inches apart. Each individual plot received about 250 lbs/acre of 10-20-20 at planting. The Aurora site, which followed soybeans, received about 120 lbs. N/acre of side-dressed N at the 4 to 5-leaf (V4 to V5) stage. The other three sites were well-manured dairy sites, which were also 1 (Groveland Station and Madrid) or 2 years (Sackets Harbor) removed from perennial forages, so they received no side-dressed N. We used preemergence/postemergence herbicides and hand-weeding to control weeds.

Both rows, trimmed back to an 18-foot length, were harvested for silage yield with a retrofitted 3-row New Holland Chopper with a platform and a weigh-basket, mounted on load cells. The goal was to harvest all hybrids in the 65% moisture range (plus/minus 3%), but dry weather at Sackets Harbor in August and the first 9 days in September resulted in moistures in the upper 50s to low 60s..

The Aurora site was harvested on two dates: 95-105 day RM groups on 26 August and 106-115 day RM groups on 3 September. Most hybrids in the four maturity groups ranged from about 64 to 68% moisture. We harvested all maturity groups at the Groveland Station site on 5 September when again most hybrids in the four maturity groups were likewise in the 64 to 68% range. We harvested all maturity groups at the Sackets Harbor site in Jefferson Co. on 9 September. Unfortunately, most hybrids were in the 56 to 60% range because of the dry preceding conditions. We

harvested all maturity groups at Madrid on 11 September when most hybrids were once again in the 64 to 68% moisture range.

An approximate 10,000 g well-mixed sample was originally collected from the chopper after harvest of each plot. The 10,000 g sample was then ground further in the field with a chipper-shredder. An approximate 700 g sub-sample was then weighed and recorded with a gram-scale wired to a computer in the field and refrigerated in a generator-powered freezer (samples were kept cool but not frozen). At the end of each day, the samples were brought back to a Cornell Field Lab for drying. The samples were dried at 140° F in a forced air drier to constant moisture and then weighed to determine moisture content of each sample.

Dry samples were ground to pass a 1 mm screen using a Wiley mill. Samples were processed and analyzed by Cumberland Valley Analytical Services, Inc. Samples were analyzed by wet chemistry for neutral detergent fiber (NDF), according to procedures by Van Soest et al. (1991). Samples were incubated for 30 hours at 39°F in a buffered rumen fluid, according to procedures by Van Soest and Robertson (1980) using a flask system and Van Soest buffer. Following fermentation, residues were analyzed for NDF by wet chemistry to determine 30-hour NDF digestibility (NDFD). The NDF digestibility was calculated as  $([1 - \text{NDF residue}/\text{initial NDF}] \times 100)$ . Crude protein (CP), starch, ether extract, and ash were determined using NIRS. Milk per ton and milk per acre were then calculated using the Milk2006 spreadsheet program (Tables 2-5). Data were analyzed using the PROC GLM procedure of SAS. The LSD values for separating hybrid means were generated at the  $P = 0.10$  level.

Hybrids were considered exceptional performers if the calculated milk yield exceeded the average of their respective RM group by more than 5%. Hybrids were considered good performers if their calculated milk yield exceeded the respective average calculated milk yield of their respective RM group.

# RESULTS AND DISCUSSION

## Growing Conditions

April and May were relatively dry and warm, which allowed for a late April planting date at Aurora and early May planting dates at the three other sites. Stand establishment at all sites averaged about 95%, resulting in final stands of ~34,000 plants/acre for most hybrids at all sites. Exceedingly wet conditions prevailed at all sites from late May through June. Fortunately, all sites had excellent drainage so crop growth was uniform at all sites. Very warm weather conditions ensued from 22 June until 20 July at all sites but excess rain in June resulted in a full soil water profile at all sites in early July. In addition, adequate precipitation during the first 20 days of July prevented any crop stress from developing during this very warm period at all sites. Most hybrids attained the tasseling/silking stage by 16-20 July at Aurora, 20-24 July at Sparta Farms and Sackets Harbor sites, and 22-26 July at the Madrid site. Conditions became exceedingly cool from tasseling until harvest minimizing any crop stress during kernel development and kernel fill, despite somewhat dry conditions at all sites except Aurora.

## Aurora and Groveland Station

When averaged across maturity groups, average silage yields increase approximately 0.9 tons/acre at Aurora and approximately 1.5 tons/acre at Groveland Station with each 5-day increase in RM (Tables 2 and 3). Yields ranged from 23.6 tons/acre (adjusted to 65% moisture) for the 95-100 day RM and 26.2 tons/acre for the 111-115 day RM group at Aurora. At Sparta Farms, the range was 25.5 tons/acre (95-100 day RM) to 30.2 tons/acre (111-115 day RM). Harvest moisture % also increased by approximately 1.0 percentage unit with each 5-day increase in RM at Groveland Station, where all hybrids were harvested on the same day.

When averaged across the two sites, the hybrids, **TMF2Q427** from Mycogen, **455GRV** from Doebler's, and **TMF2L538** from Mycogen had exceptionally high calculated milk yields in the **95-100 day RM** group. Both Mycogen hybrids performed exceptionally well at both sites, whereas the Doebler hybrid had the highest calculated milk yield at Groveland Station. Other hybrids that performed well when averaged across both sites include **MC-4880** from KingsAgriseeds, **197-68STX** from Channel, **DKC46-20** from DEKALB, **471XY** from Doebler's, which had the highest calculated milk yield at Aurora, and **H5151RC3P** from Hubner. The hybrids, **WRV 2702L** from Wolf River Valley Seeds and **D39QN29** from Dairyland had the 4<sup>th</sup> and 5<sup>th</sup> highest calculated milk yields at Aurora but were not entered at the Groveland Station site. Likewise, **HiDF 3197-7** from Dairyland had the 4<sup>th</sup> highest calculated milk yield at Groveland Station but was not entered at Aurora.

When averaged across the Aurora and Groveland Station sites, **HiDF3702-9** from Dairyland, **H5222VT3** from Hubner, which had the highest calculated milk yield at Aurora, and **TA545-33** from T.A. Seeds were exceptional performers in the **101-105 day RM**. Other hybrids that performed well at these two sites include **554GRQ** from Doebler's, **203-44STX** from Channel, and **NK53W-3000GT** and **NK45P-3110A** from Syngenta. The hybrid, **Garst 86T-823122** from Syngenta had the highest calculated yield at Groveland Station but was not entered at Aurora.

When averaged across the Aurora and Groveland Station sites, the hybrids, **FS 5667GT3** from FS InVISION, **TMF2R720** from Mycogen, and **H5333RC3P** and **H5420RC3P** from Hubner had exceptionally high calculated milk yields in the **106-110 day RM**. Other hybrids that performed well when averaged across both sites include **207-13VT3P**, which had the 2<sup>nd</sup> highest calculated milk yield at Groveland Station, and **210-95STX** from Channel. The hybrids, **647AM1** and **604HRQ** from Doebler's had the 4<sup>th</sup> and 5<sup>th</sup> highest calculated milk yields at Aurora. Likewise, the hybrid, **P0216AM** from Pioneer had the 4<sup>th</sup> highest calculated milk yield at Groveland Station. Also, **WRV 2114L** from Wolf River Valley Seeds had the 6<sup>th</sup> highest calculated milk yield at Groveland Station but was not entered at Aurora.

When averaged across the Aurora and Groveland Station sites, the hybrid **DKC61-88** from DEKALB, which had the highest calculated milk yield at Groveland Station, had an exceptionally high calculated milk yield in the **111-115 day RM**. The hybrid, **214-14VT3P** from Channel, which had the highest calculated milk yield at Aurora, also performed well. The hybrid **TA683-13VP** from TA Seeds had the 2<sup>nd</sup> highest calculated yield at Groveland Station but was not entered at the Aurora site.

### **Madrid and Sackets Harbor**

When averaged across maturity groups, average silage yields increase approximately 1.5 tons/acre at Madrid and approximately 0.5 tons/acre at Sackets Harbor with each 5-day increase in RM (Tables 4 and 5). Yields ranged from 25.2 tons/acre for the 84-90 day RM and 27.0 tons/acre for the 96-102 day RM group at Madrid. At Sackets Harbor, the range was 24.5 tons/acre (84-90 day RM) to 26.1 tons/acre (96-102 day RM). Harvest moisture % also increased by approximately 1.1 percentage units with each 5-day increase in RM at Madrid and 1.3 percentage units at Sackets Harbor, where all hybrids were harvested on the same day.

When averaged across the Madrid and Sackets Harbor sites, the hybrid, **MC-4050** from KingsAgriseed, which had the highest calculated milk yield at Sackets Harbor and the 2<sup>nd</sup> highest at Madrid, performed exceptionally well in the **84 to 90 day RM** group (Tables 4 and 5). Another

exceptional hybrid in the 84-90 RM Group was **287GRQ** from Doebler's, which had the highest calculated milk yield at Madrid. Other hybrids that performed well when averaged across sites include **327GRB** from Doebler's, which had the 3<sup>rd</sup> highest calculated milk yield at Sackets Harbor, **MC-480** from KingsAgriseed, which had the 2<sup>nd</sup> highest calculated milk yield at Sackets Harbor, **TA304-02ND** from T.A.Seeds, **27A13** from Healthy Herd Genetics and Nutrition, which had the 3<sup>rd</sup> highest calculated milk yield at Madrid, and **FS 40R30SS** from FS InVISION.

When averaged across the two sites, the hybrids, **WRV 3396 FL** from Wolf River Valley Seeds, which had the highest calculated milk yield at Madrid, **455GRV** from Doebler's, which had the highest calculated milk yield at Sackets Harbor, **TMF2L418** from Mycogen and **P9917AMX** from Pioneer, all performed exceptionally well in the **91-95 day RM**. The hybrids **TMF2L418** and **P9917AMX** had the second highest calculated milk yield at Sackets Harbor and Madrid, respectively.

When averaged across the two sites, the hybrids, **P0553AM1** from Pioneer and **MC-5250** from KingsAgriseed, which had the 2<sup>nd</sup> highest calculated milk yield at Sackets Harbor, performed exceptionally well in the **96-102 day RM**. Other hybrids that performed well when averaged across sites include **FS 46R26SS** from FS InVISION, **43HF13** from Healthy Herd Genetics and Nutrition, which had the highest calculated milk yield at Sackets Harbor, **471XY** from Doebler's, and **39HF13** from Healthy Herd Genetics and Nutrition. The hybrids, **TMF2Q413** and **TMF2Q427** from Mycogen had the highest calculated milk yields at Madrid but were not entered at the Sackets Harbor site. Likewise, the hybrid, **Garst 86T-823122** from Syngenta had the 3<sup>rd</sup> highest calculated milk yield at Sackets Harbor, but was not entered at the Madrid site

## CONCLUSION

The 2013 growing season again proved to be another challenging year because of the excessive precipitation from late May through June. Corn silage producers on well-drained soils in New York had record yields; whereas producers on somewhat poorly to poorly drained soils had below-average yields. The results of this study were incorporated into the recommended corn silage tables in our **2014 Cornell Guide for Integrated Field Crop Management**, which will be released at the Cornell Field Crop Dealer Meetings in December of 2013. We only recommend hybrids that have above-average comparative calculated milk yields (>100%) in their hybrid RM group (i.e. 96-100, 101-105 day RM, etc.). We also list the comparative silage yields and milk/ton values for the recommended hybrids. Also, look for the updated recommended hybrids first in next newsletter, **What's Cropping Up?** (at our web site: [www.fieldcrops.org](http://www.fieldcrops.org)). We urge all seed companies to participate in our corn silage testing program in 2014 so we can provide the best information under New York growing conditions to our New York dairy producers.

Month	Precipitation				GDD (86-50 F)			
	Aurora	Groveland	Sackets**		Aurora	Groveland	Sackets	
		Station*	Harbor	Madrid***		Station	Harbor	Madrid
May	3.61	2.87	1.64	3.69	383	427	357	323
June	6.38	3.88	6.04	7.43	478	522	448	441
July	3.23	3.66	3.06	3.11	674	706	674	626
August	5.97	2.44	2.10	2.31	526	608	547	532
Seasonal	19.19	12.85	12.84	16.54	2061	2263	2026	1922

\* Dansville weather station data.  
\*\* Watertown weather station data  
\*\*\* Canton weather data station data

**Table 2. Silage yield (adjusted to 65% moisture), moisture at harvest, quality characteristics, milk/ton, and calculated milk yields of corn hybrids at the Aurora Research Farm in Cayuga Co. in 2013.**

Brand/ Company	Hybrid	Silage Yield tons @65	Moisture %DM	NDF %DM	30 hour NDFD %	CP %DM	Starch %DM	Milk2006 Milk/ton lbs./ton	Milk2006 Milk Yield lbs./acre
<b>95-100-d RM</b>									
Doebler's	471XY	25.7	65.1	35.6	59.0	7.4	41.6	3657	32879
Mycogen	TMF2Q427	24.8	65.9	38.4	59.6	7.8	38.0	3614	31354
Channel	197-68STX	25.1	66.6	38.4	58.3	7.4	36.4	3563	31293
Wolf River Valley Seeds	WRV2702L	24.3	66.7	38.9	61.9	7.5	37.5	3637	31003
Dyna-Gro	D39QN29	24.3	68.0	36.9	58.6	7.8	37.1	3636	30950
KingsAgriseed	MC-4880	24.7	64.7	36.3	55.9	7.2	39.5	3574	30849
Mycogen	TMF2L538	26.0	69.4	45.0	59.9	6.8	29.1	3347	30635
Hubner Seeds	H5297RC3P	24.6	66.9	36.8	56.1	7.5	39.0	3526	30401
DEKALB	DKC46-20	24.6	65.7	39.7	57.9	7.7	36.2	3526	30387
Dyna-Gro	D405509	23.9	66.5	37.2	56.8	7.6	38.7	3562	29756
Hubner Seeds	H5151RC3P	23.1	64.6	34.0	57.5	7.5	42.5	3656	29553
Doebler's	455GRV	23.6	66.6	40.9	58.4	7.0	34.5	3490	28810
DEKALB	DKC49-29	21.9	66.6	36.8	57.2	7.6	38.6	3573	27353
Channel	195-58STX	21.9	65.8	37.8	56.9	7.4	39.3	3551	27195
Health Herd Genetics	43HF13	21.8	70.5	44.0	57.8	7.8	31.9	3385	25861
Doebler's	468AMX	19.7	66.1	36.1	60.9	7.1	40.7	3671	25220
Health Herd Genetics	39HF13	20.6	69.0	45.7	59.2	7.1	28.6	3340	24127
<b>Average</b>		<b>23.6</b>	<b>66.7</b>	<b>38.7</b>	<b>58.3</b>	<b>7.4</b>	<b>37.0</b>	<b>3547</b>	<b>29272</b>
<b>101-105-d</b>									
Hubner Seeds	H5222 VT3	29.2	63.9	38.8	57.4	6.8	38.3	3530	36008
Dairyland	HliDF 3702-9	26.5	66.0	37.7	59.2	7.0	38.5	3610	33489
KingsAgriseed	MC-5250	25.9	66.5	39.8	58.7	6.7	36.8	3528	31962
TA Seeds	TA545-33	25.5	64.8	39.3	59.1	6.8	37.7	3555	31636
Channel	203-44STX	24.2	65.4	35.5	57.8	7.4	40.1	3649	30923
Doebler's	554GRQ	24.3	65.2	37.5	60.0	6.7	39.7	3622	30684
Syngenta	NK53W-3000GT	24.9	65.7	40.5	56.5	6.8	34.5	3463	30122
Syngenta	NK45P-3110A	23.2	64.4	39.0	57.5	7.5	36.4	3537	28752
DEKALB	DKC53-56	22.7	64.1	36.2	57.2	7.4	40.2	3619	28743

TA Seeds	TA550-20ND	23.0	67.1	42.3	56.1	6.9	34.5	3425	27469
TA Seeds	TA514-28	22.2	66.6	39.0	56.4	7.7	36.5	3512	27358
Health Herd Genetics	43HF13	19.5	69.4	45.4	58.3	7.1	29.7	3362	22885
<b>Average</b>		<b>24.3</b>	<b>65.8</b>	<b>39.2</b>	<b>57.8</b>	<b>7.1</b>	<b>36.9</b>	<b>3534</b>	<b>30003</b>

Brand/ Company	Hybrid	Silage		30 hour			Milk2006	Milk2006	
		Yield tons @65	Moisture %DM	NDF %DM	NDFD %	CP %DM	Starch %DM	Milk/ton lbs./ton	Milk Yield lbs./acre
<b>106 to 110-d RM</b>									
FS InVISION	FS 5667GT3	27.3	63.1	36.2	59.4	6.8	42.2	3654	34893
Hubner Seeds	H5333 RC3P	27.1	66.1	39.4	59.4	7.8	36.8	3578	33996
Hubner Seeds	H5420RC3P	27.5	66.3	39.4	54.5	7.3	36.6	3456	33300
Doebler's	647AMI	25.4	66.1	37.6	58.7	7.2	38.1	3608	32059
Doebler's	604HRQ	26.7	65.3	40.5	54.8	6.7	35.2	3376	31552
DEKALB	DKC57-75	25.2	65.6	37.0	56.0	6.9	39.9	3566	31424
DEKALB	DKC58-83	25.4	63.8	39.5	56.7	7.3	36.7	3497	31098
TA Seeds	TA108-18	26.5	67.4	42.6	54.1	7.1	32.9	3328	30807
Channel	207-13VT3P	25.4	64.8	40.8	54.7	6.9	36.2	3428	30505
Mycogen	TMF2R720	26.4	68.0	44.9	55.0	6.7	30.4	3286	30272
Pioneer	PO993AMI	24.4	66.4	40.3	58.8	7.0	35.9	3502	29926
Channel	210-95STX	23.8	64.8	40.1	59.4	6.6	37.7	3568	29685
Pioneer	P0216	23.7	66.1	37.5	57.0	7.1	38.5	3563	29631
Mycogen	TMF2H699	25.1	67.1	46.6	56.8	6.6	30.2	3308	29001
TA Seeds	TA614-22DP	24.4	65.2	40.6	53.1	6.7	36.3	3388	28928
Mycogen	F2F627	22.1	68.4	41.9	67.9	7.0	33.8	3727	28785
<b>Average</b>		<b>25.4</b>	<b>65.9</b>	<b>40.3</b>	<b>57.3</b>	<b>7.0</b>	<b>36.1</b>	<b>3489</b>	<b>30991</b>
<b>111-114-d RM</b>									
Channel	214-14VT3P	27.2	65.2	40.6	56.0	7.2	36.4	3485	33115
DEKALB	DKC61-88	27.4	64.6	39.0	52.8	6.7	37.1	3434	32867
TA Seeds	TA657-13 VP	27.1	65.7	40.2	53.9	6.8	37.1	3447	32616
Dyna-Gro	D53VC13	25.1	65.8	39.7	57.1	7.3	36.0	3518	31011
Pioneer	P1449XR	24.3	69.4	43.0	61.9	7.4	29.9	3431	29062
<b>Average</b>		<b>26.2</b>	<b>66.1</b>	<b>40.5</b>	<b>56.3</b>	<b>7.1</b>	<b>35.3</b>	<b>3463</b>	<b>31734</b>
<b>LSD 0.10</b>		<b>3.60</b>	<b>2.31</b>	<b>2.95</b>	<b>2.58</b>	<b>0.49</b>	<b>3.24</b>	<b>116</b>	<b>4526</b>
<b>Overall Mean</b>		<b>24.7</b>	<b>66.2</b>	<b>39.6</b>	<b>57.6</b>	<b>7.2</b>	<b>36.5</b>	<b>3514</b>	<b>30331</b>



**Table 3. Silage yield (adjusted to 65% moisture), moisture at harvest, quality characteristics, milk/ton, and calculated milk yields of corn hybrids at Sparta Farms in Livingston Co. in 2013.**

Brand/ Company	Hybrid	Silage		30 hour				Milk2006	Milk2006
		Yield tons @65	Moisture %DM	NDF %DM	NDFD %	CP %DM	Starch %DM	Milk/ton lbs./ton	Milk Yield lbs./acre
<b>95 to 100-d RM</b>									
Doebler's	455GRV	30.5	63.4	38.3	54.5	8.6	36.2	3474	37007
Mycogen	TMF2Q413	30.2	64.6	39.5	55.9	8.4	34.5	3460	36685
Mycogen	TMF2Q427	28.7	64.3	39.3	55.6	8.9	34.4	3477	35026
Dairyland	HiDF 3197-7	28.9	65.9	42.0	55.2	8.4	32.2	3358	34022
Mycogen	TMF2L538	28.2	67.1	41.1	55.4	8.7	32.0	3404	33580
KingsAgriseed	MC-4880	25.8	64.3	37.7	54.0	8.3	36.4	3472	31383
Hubner Seeds	H5151RC3P	25.3	64.5	38.2	53.9	8.9	35.5	3426	30350
DEKALB	DKC46-20	25.0	63.2	38.9	56.4	9.4	34.5	3457	30252
Channel	197-68STX	24.7	64.1	40.6	56.5	8.2	34.6	3447	29790
Health Herd Genetics	43HF13	24.7	67.4	42.3	56.5	8.9	29.4	3348	28940
Doebler's	471XY	24.4	63.2	39.8	50.8	8.5	32.7	3232	27588
DEKALB	DKC49-29	23.0	65.3	39.7	53.4	9.2	31.9	3320	26710
Hubner Seeds	H5297RC3P	22.6	65.1	39.5	52.8	8.1	34.4	3365	26607
Doebler's	468AMX	22.5	64.1	39.3	52.1	8.3	34.7	3348	26479
Health Herd Genetics	38HF13	22.6	65.5	43.7	57.5	9.3	29.0	3349	26450
KingsAgriseed	MCT-4564	24.3	63.1	38.5	51.4	9.0	34.8	3356	25537
Channel	195-58STX	21.3	65.6	39.3	54.5	9.3	35.0	3445	23607
<b>Average</b>		<b>25.5</b>	<b>64.7</b>	<b>39.9</b>	<b>54.5</b>	<b>8.7</b>	<b>33.6</b>	<b>3396</b>	<b>30001</b>
<b>101-105-d RM</b>									
Syngenta	Garst 86T-823122	28.7	64.9	39.3	56.5	8.3	33.9	3470	34810
TA Seeds	TA545-33	28.5	63.8	40.3	55.9	7.9	33.7	3401	33989
Dairyland	HiDF 3702-9	27.5	66.3	38.8	57.2	8.3	36.5	3503	33697
Syngenta	NK45P-3110A	28.2	64.3	40.4	55.0	8.4	33.3	3404	33582
Doebler's	554GRQ	27.6	64.3	38.8	54.8	8.3	34.8	3461	33437
Syngenta	NK53W-3000GT	28.4	66.5	41.4	54.6	8.3	31.3	3349	33372
TA Seeds	TA550-20ND	27.7	69.6	41.6	54.4	9.6	31.2	3391	32975
Channel	203-44STX	27.4	66.2	40.1	54.5	8.1	34.9	3423	32888
Dyna-Gro	D45Q50	27.1	67.0	42.5	53.7	8.1	31.8	3309	31414
Health Herd Genetics	43HF13	26.1	67.4	42.9	57.5	8.9	29.8	3397	31048
Hubner Seeds	H5222 VT3	25.6	66.7	40.0	55.3	8.2	35.1	3417	30717
TA Seeds	TA514-28	24.3	65.0	40.4	57.0	8.8	34.5	3466	29544
DEKALB	DKC53-56	24.0	64.6	40.4	58.0	8.4	34.0	3492	29270
KingsAgriseed	MC-5250	24.2	68.2	40.3	56.9	8.0	34.3	3446	29190
<b>Average</b>		<b>26.8</b>	<b>66.0</b>	<b>40.5</b>	<b>55.8</b>	<b>8.4</b>	<b>33.5</b>	<b>3423</b>	<b>32138</b>
<b>106 to 110-d RM</b>									
Mycogen	TMF2R720	32.8	67.9	44.7	53.2	8.5	29.0	3250	37390
Channel	207-13VT3P	30.9	66.2	40.9	52.5	8.3	32.9	3337	36009
Channel	210-95STX	29.7	66.1	41.3	54.4	8.4	32.6	3385	35190
Pioneer	P0216	27.7	67.3	38.5	57.5	8.9	34.4	3505	33966
Hubner Seeds	H5420RC3P	29.0	66.0	41.5	52.9	8.4	31.7	3339	33923
Wolf River Valley Seeds	WRV2114L	29.8	67.4	45.9	54.9	8.7	28.9	3240	33852
Mycogen	TMF2H699	29.7	67.3	48.0	56.2	8.1	26.5	3218	33452

Pioneer	P0993AM1	28.7	68.1	41.4	54.4	8.2	31.4	3317	33329
FS InVISION	FS 5667GT3	27.9	65.2	40.2	53.9	8.0	33.5	3387	33103
Hubner Seeds	H5333 RC3P	27.5	66.0	40.1	56.1	8.3	32.9	3438	33048
Doebler's	604HRQ	28.8	67.8	39.3	52.3	8.7	32.2	3273	32940
TA Seeds	TA614-22DP	27.5	64.9	41.3	52.4	8.2	32.8	3320	32012
KingsAgriseed	MCT-5663	27.2	67.2	41.4	53.6	7.9	33.2	3337	31724
Dyna-Gro	D50VN10	28.0	69.2	40.5	51.4	8.8	30.3	3225	31486
TA Seeds	TA108-18	27.3	68.9	43.0	52.6	8.0	30.9	3283	31453
Doebler's	647AMI	26.0	67.3	39.2	54.3	8.4	34.0	3411	31022
DEKALB	DKC58-83	25.7	65.3	41.4	54.7	8.3	33.1	3366	30223
DEKALB	DKC57-75	24.6	67.3	40.3	55.5	8.3	34.9	3435	29551
Mycogen	F2F627	24.0	67.8	46.0	62.4	8.6	27.5	3451	28994
<b>Average</b>		<b>28.0</b>	<b>67.0</b>	<b>41.8</b>	<b>54.5</b>	<b>8.4</b>	<b>31.7</b>	<b>3343</b>	<b>32772</b>
<b>111 to 114-d RM</b>									
DEKALB	DKC61-88	33.6	66.4	40.5	52.4	8.5	34.3	3353	39445
TA Seeds	TA683-13VP	32.0	66.4	42.3	54.3	8.4	32.9	3334	37367
Channel	214-14VT3P	29.9	68.0	42.1	53.0	8.9	30.5	3312	34586
Pioneer	P1449XR	27.5	69.4	39.6	61.0	8.6	31.4	3491	33656
TA Seeds	TA657-13 VP	28.2	67.9	42.0	53.7	8.9	32.0	3356	33044
<b>Average</b>		<b>30.2</b>	<b>67.6</b>	<b>41.3</b>	<b>54.9</b>	<b>8.7</b>	<b>32.2</b>	<b>3369</b>	<b>35619</b>
<b>LSD 0.10</b>		<b>2.63</b>	<b>1.39</b>	<b>2.29</b>	<b>2.39</b>	<b>0.47</b>	<b>2.37</b>	<b>121</b>	<b>3716</b>
<b>Overall Mean</b>		<b>27.1</b>	<b>66.1</b>	<b>40.8</b>	<b>54.9</b>	<b>8.5</b>	<b>32.8</b>	<b>3382</b>	<b>32013</b>

**Table 4. Silage yield (adjusted to 65% moisture), moisture at harvest, quality characteristics, milk/ton, and calculated milk yields of corn hybrids at Madrid in St. Lawrence Co. in 2013.**

Brand/ Company	Hybrid	Silage		30 hour				Milk2006	Milk2006
		Yield tons @65	Moisture %DM	NDF %DM	NDFD %	CP %DM	Starch %DM	Milk/ton lbs./ton	Milk Yield lbs./acre
<b>84-90-d RM</b>									
Doebler's	287GRQ	26.7	63.3	43.9	49.6	8.6	29.6	3276	30731
KingsAgriseed	MC-4050	26.6	65.8	44.6	49.8	8.5	30.9	3242	30218
Health Herd Genetics	27A13	23.5	64.3	46.8	57.4	8.3	28.3	3410	28114
FS InVISION	FS 40R30SS	24.1	64.7	44.3	51.6	8.4	30.8	3324	28066
Doebler's	327GRB	24.5	66.6	44.8	49.7	7.8	30.1	3223	27668
TA Seeds	TA304-02ND	23.6	65.0	45.7	52.9	8.9	28.7	3291	27206
Syngenta	N19L-3011 A	23.7	62.9	45.0	50.8	9.0	28.8	3282	27195
KingsAgriseed	MC-480	23.6	64.6	44.7	49.0	8.5	29.9	3225	26699
Wolf River Valley Seeds	WRV2387	22.1	64.1	48.0	56.8	8.8	26.9	3381	26173
DEKALB	DKC38-04	23.6	65.5	47.0	50.2	8.9	25.1	3118	25863
Hubner Seeds	H5080RC3P	22.0	64.8	46.2	50.7	9.2	26.9	3206	24673
DEKALB	DKC39-07	24.0	65.9	48.2	47.1	8.3	23.4	2914	24519
<b>Average</b>		<b>24.0</b>	<b>64.8</b>	<b>45.8</b>	<b>51.3</b>	<b>8.6</b>	<b>28.3</b>	<b>3241</b>	<b>27260</b>
<b>91-95-d RM</b>									
Wolf River Valley Seeds	WRV3396 FL	27.6	66.0	49.7	56.3	8.4	27.7	3299	31909
Pioneer	P9917AMX	26.4	63.8	43.7	52.5	8.0	31.6	3363	31060
Mycogen	TMF2L418	26.5	67.4	47.6	55.6	8.7	27.9	3339	30998
Doebler's	455GRV	27.4	66.6	49.7	50.5	7.2	27.5	3120	29919
DEKALB	DKC43-48	25.5	65.9	46.2	50.6	7.8	28.4	3218	28788
DEKALB	DKC43-10	24.3	65.8	46.1	53.2	8.6	28.2	3292	28014
Hubner Seeds	H5151RC3P	24.4	65.6	46.1	50.9	8.4	26.6	3217	27399
TA Seeds	TA333-28	24.0	64.5	46.4	52.0	8.7	27.1	3215	27019
Hubner Seeds	H4157RC2P	24.3	66.7	47.0	50.3	8.2	26.1	3146	26805
Hubner Seeds	H6040RCSS	24.4	66.6	49.8	50.4	8.4	27.5	3100	26501
Doebler's	428AMX	21.9	65.2	48.5	49.2	8.3	23.3	2950	22674
<b>Average</b>		<b>25.2</b>	<b>65.8</b>	<b>47.3</b>	<b>52.0</b>	<b>8.3</b>	<b>27.4</b>	<b>3205</b>	<b>28280</b>
<b>96-102-d RM</b>									
Mycogen	TMF2Q413	32.1	66.4	51.0	53.3	7.5	28.3	3160	35534
Mycogen	TMF2Q427	28.3	66.3	48.4	56.0	8.1	29.0	3339	33038
DEKALB	DKC46-20	28.1	64.7	44.6	52.8	8.6	29.5	3322	32670
Pioneer	P0533AMI	27.8	64.8	46.6	55.2	7.7	29.8	3334	32338
FS InVISION	FS 46R26SS	27.6	67.3	46.7	54.3	7.9	28.5	3321	32098
Hubner Seeds	H5297RC3P	28.3	67.9	46.1	49.9	7.9	28.1	3186	31575
KingsAgriseed	MC-5250	28.2	67.4	49.4	49.7	8.1	25.6	3100	30559
Doebler's	471XY	26.5	66.7	46.2	52.9	8.0	26.7	3244	30178
Health Herd Genetics	43HF13	25.6	70.3	49.4	55.5	8.2	25.1	3242	29094
DEKALB	DKC49-29	26.0	67.9	47.0	50.6	8.5	27.1	3183	29061
Health Herd Genetics	39HF13	24.6	67.6	46.1	55.7	8.8	28.3	3361	28931
TA Seeds	TA484-28	26.4	67.5	48.6	50.5	8.3	25.8	3123	28838
FS InVISION	FS 4939VT3P	23.9	66.2	45.4	53.8	8.1	28.2	3292	27532
Doebler's	468AMX	24.7	67.0	50.2	51.2	7.8	26.8	3101	26774

<b>Average</b>	<b>27.0</b>	<b>67.0</b>	<b>47.6</b>	<b>53.0</b>	<b>8.1</b>	<b>27.6</b>	<b>3236</b>	<b>30587</b>
<b>LSD 0.10</b>	<b>2.16</b>	<b>1.16</b>	<b>2.97</b>	<b>2.45</b>	<b>0.58</b>	<b>3.10</b>	<b>147</b>	<b>2984</b>
<b>Overall Mean</b>	<b>25.5</b>	<b>65.9</b>	<b>46.9</b>	<b>52.1</b>	<b>8.3</b>	<b>27.8</b>	<b>3228</b>	<b>28822</b>

**Table 5. Silage yield (adjusted to 65% moisture), moisture at harvest, quality characteristics, milk/ton, and calculated milk yields of corn hybrids at Sackets Harbor in Jefferson Co. in 2013.**

Brand/ Company	Hybrid	Silage		30 hour				Milk2006	Milk2006
		Yield tons @65	Moisture %DM	NDF %DM	NDFD %	CP %DM	Starch %DM	Milk/ton lbs./ton	Milk Yield lbs./acre
<b>84-90-d RM</b>									
KingsAgriseed	MC-4050	26.6	56.3	38.5	50.1	8.4	34.4	3406	31631
KingsAgriseed	MC-480	25.3	52.2	40.1	52.8	8.1	35.6	3484	30876
Doebler's	327GRB	25.0	53.6	38.7	51.3	8.6	34.8	3440	30176
TA Seeds	TA304-02ND	25.8	58.8	42.2	51.3	8.9	29.0	3286	29623
Wolf River Valley Seeds	WRV2387	24.9	55.8	45.4	54.3	8.2	29.3	3350	29142
Health Herd Genetics	27A13	23.4	53.9	43.4	56.3	8.3	32.0	3490	28668
FS InVISION	FS 40R30SS	24.6	59.3	43.4	52.6	8.3	29.5	3319	28544
DEKALB	DKC39-07	24.8	57.2	43.0	50.3	8.1	29.8	3226	28062
Doebler's	287GRQ	24.9	54.0	44.1	49.2	7.7	29.6	3159	27670
Hubner Seeds	H5080RC3P	21.6	57.3	42.5	51.8	8.3	30.6	3301	24975
DEKALB	DKC38-04	22.9	57.4	43.7	47.0	8.3	29.1	3132	24968
<b>Average</b>		<b>24.5</b>	<b>56.0</b>	<b>42.3</b>	<b>51.6</b>	<b>8.3</b>	<b>31.2</b>	<b>3326</b>	<b>28576</b>
<b>91-95-d RM</b>									
Doebler's	455GRV	27.2	55.2	42.0	51.2	7.9	33.4	3360	32008
Mycogen	TMF2L418	26.1	56.1	43.9	52.2	8.2	30.4	3349	30545
KingsAgriseed	MCT-4564	25.5	55.2	41.0	50.8	8.5	33.8	3386	30175
Wolf River Valley Seeds	WRV3396 FL	25.5	56.6	44.5	54.5	7.8	30.3	3372	30123
Hubner Seeds	H5151RC3P	25.7	56.9	41.6	49.9	8.3	31.3	3281	29484
Pioneer	P9917AMX	24.7	54.4	41.3	52.8	8.4	32.4	3404	29413
Hubner Seeds	H6040RCSS	24.4	59.6	42.1	50.6	8.0	31.6	3297	28147
Hubner Seeds	H4157RC2P	24.5	59.1	43.5	49.8	7.9	29.0	3200	27401
DEKALB	DKC43-48	23.5	58.3	42.1	50.3	8.0	32.0	3327	27354
TA Seeds	TA333-28	24.1	58.0	44.8	49.4	8.1	28.3	3137	26512
DEKALB	DKC43-10	22.0	58.3	43.2	50.8	8.0	30.9	3313	25554
Doebler's	428AMX	22.4	56.0	42.1	49.5	8.1	30.7	3244	25466
<b>Average</b>		<b>24.6</b>	<b>57.0</b>	<b>42.7</b>	<b>51.0</b>	<b>8.1</b>	<b>31.2</b>	<b>3306</b>	<b>28515</b>
<b>96-105-d RM</b>									
Health Herd Genetics	43HF13	28.4	61.1	43.4	57.3	8.2	31.7	3483	34581
KingsAgriseed	MC-5250	29.0	59.8	43.7	53.2	7.5	31.5	3353	33875
Syngenta	Garst 86 T-823122	29.1	60.3	45.4	53.4	6.8	29.6	3307	33709
Health Herd Genetics	39HF13	27.7	59.0	44.8	54.3	8.4	29.5	3363	32614
Doebler's	471XY	27.1	57.2	40.8	53.6	8.2	32.2	3402	32325
Pioneer	P0533AMI	26.1	55.0	40.2	56.0	7.9	34.7	3540	32283
FS InVISION	FS 46R26SS	26.4	59.8	41.8	54.2	7.9	32.4	3434	31775
Dairyland	HiDF 3197-7	26.6	59.7	46.4	53.4	7.7	28.2	3270	30501
Wolf River Valley Seeds	WRV2702L	27.1	58.2	46.4	51.4	7.7	27.5	3216	30437
DEKALB	DKC46-20	26.0	57.4	43.0	52.1	7.9	32.6	3322	30210
Doebler's	468AMX	25.3	57.0	41.3	51.9	8.2	33.1	3371	29935
KingsAgriseed	MC-4880	25.2	56.5	41.0	51.1	7.7	34.0	3392	29890
Hubner Seeds	H5297RC3P	24.8	60.2	43.2	50.1	7.6	31.1	3281	28528
TA Seeds	TA484-28	23.8	59.0	43.0	51.3	8.2	29.8	3276	27303

FS InVISION	FS 4939VT3P	21.9	58.2	39.7	53.6	8.8	33.1	3462	26535
DEKALB	DKC49-29	23.3	59.6	42.8	47.9	7.8	30.1	3180	25866
	<b>Average</b>	<b>26.1</b>	<b>58.6</b>	<b>42.9</b>	<b>52.8</b>	<b>7.9</b>	<b>31.3</b>	<b>3353</b>	<b>30648</b>
	<b>LSD 0.10</b>	<b>2.68</b>	<b>2.70</b>	<b>2.67</b>	<b>2.76</b>	<b>0.65</b>	<b>3.19</b>	<b>163</b>	<b>3433</b>
	<b>Overall Mean</b>	<b>25.2</b>	<b>57.4</b>	<b>42.7</b>	<b>51.9</b>	<b>8.1</b>	<b>31.3</b>	<b>3331</b>	<b>29407</b>