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## **NEW YORK CORN SILAGE HYBRID TESTS – 2010**

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## **NEW YORK CORN SILAGE HYBRID TESTS – 2010**

Corn silage hybrids were tested at four locations in New York in 2010. We evaluated 95 to 115-day hybrids in relative maturity (RM) at the Aurora Research Farm (Cayuga Co.) and Sparta Farms (formally named Southview Farms) in Groveland Station (Livingston Co.). Both sites average about 2450 growing degree days (GDD, 86-50° system) from May through September. We evaluated 80 to 100-day hybrids in RM at John Greenwood's farm in Madrid (St. Lawrence Co.) and at the Ron Robbins Farm in Sackets Harbor (Jefferson Co.). Both sites average about 2200 GDD from May through September. All seed companies were invited to enter their hybrids in these tests at 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 22 April and the Groveland Station site on 23 April. The Madrid site was planted on 29 April and the Sackets Harbor site was planted on 30 April. 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 received about 140 lbs N/acre of sidedressed N at the 4 to 5-leaf (V4 to V5) stage. The other three sites were well-manured dairy sites so they received no sidedressed N. We used preemergence/postemergence herbicides and hand-weeding to control weeds.

Both rows, trimmed back to an 18-foot length, of each hybrid 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 2%), but some hybrids were drier than planned because of equipment problems and 90 degree temperatures in late August and early September.

The Aurora site was harvested on two dates: 95-100 and 101-105 day RM groups on 19 August when hybrids in both maturity groups averaged about 65% moisture. The Aurora site received 4.27 inches of precipitation on 23-24 August, which re-hydrated most hybrids at that site so we moved on to Sackets Harbor on 27 August, which received only 2.5 inches of precipitation on 23-24 August. We harvested the entire experiment on the 27<sup>th</sup> but the hybrids

had re-hydrated some so moisture averaged from 69.5 to 71.5% across the hybrid maturity groups. Starch values, however, averaged from 32 to 33.5% across the maturity groups so all the hybrids were probably less than 70% moisture on a physiological basis. Equipment failures delayed harvest until 2 September at Aurora of the 106-110 and 111-115 day hybrids when moistures were down to 60 to 62% because of the ongoing 90-degree weather. We harvested all maturity groups at the Groveland Station site on 3 September with moistures just about right (63 to 67% across the four maturity groups). Unfortunately, because of family commitments for Labor Day weekend, we could not get up to the Madrid site until 8 September where moistures ranged from 57 to 59% across the three maturity groups.

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 with a gram-scale 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 Research Farm 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.

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 are considered above-average for calculated milk yield, milk/ton, or silage yield when the hybrid's value is above 100% of the mean value within their RM group across sites (and much-above average with values more than 105%).

## RESULTS AND DISCUSSION

### Aurora and Groveland Station

Exceptionally warm conditions throughout the growing season and somewhat wet conditions after May characterized the 2010 growing season at both locations. It was the 7<sup>th</sup> warmest growing season at the Aurora Research Farm (since its inception in 1948) and the 12<sup>th</sup> warmest at Dansville (3<sup>rd</sup> warmest since 1940); with total GDD from May through August about 200 GDD above normal at both sites (Table 1). Both sites were somewhat dry in April and May, which allowed for early planting at both sites. The 95-105 day hybrids were in the tasseling/silking stage at Aurora during the week of 11 July, close to the exceedingly hot week on the East Coast from 5-10 July. Nevertheless, yields in the both RM groups were relatively high, despite the hot temperatures the week before silking. When averaged across maturity groups at Aurora, average yields for each maturity group ranged from 24.9 tons/acre (adjusted to 65% moisture) for the 95-100 day and 101-105 day RM (one brown midrib hybrids in the 101-105 day RM), 27.1 tons/acre in the 106-110 day RM (three brown midrib hybrids), and 28.4 tons/acre in the 111-115 day RM (Table 2).

The Groveland Station site received a hard freeze (28 °F), the mornings of 10 May, which singed back the foliage of most hybrids, which were in the V3 stage. All hybrids recovered but it may have delayed development a bit as indicated by the discrepancy in moistures of the 106-115 day hybrids between the Aurora and Groveland sites, despite only a day difference in planting and harvesting and the same number of GDD at both sites during the growing season. Average yields for each RM group at Groveland Station ranged from 25.1 tons/acre for the 95-100 day RM, 26.5 tons/acre for the 101-105 day RM, 27.2 tons/acre for the 106-110 day RM, and 28.1 tons/acre for the 111-115 day RM (Table 3).

Six hybrids at both sites had above-average calculated milk yields in the 95-100 day RM group in 2010 (Tables 2 and 3). When averaged across sites, D39QN29 from Dyna-Gro had much-above average milk yields because of much-above silage yields and milk/ton values. Also, TMF2L533 from Mycogen and TA 477-08 from T.A. Seeds had much-above milk yields with TMF2L533 having much-above silage yields, whereas TA 477-08 had above-average silage and milk/ton values. Older hybrids, HL STV50 from Hyland Seed and 1900F/RR/HT from LICA, had above-average milk yield with HL STV50 having both an above-average silage yield

and milk/ton value and 1900F/RR/HT having above-average silage yield. The new hybrid, TA 501-12 from T.A. Seeds, also had above-average milk yield because of above-average silage yields.

Twelve hybrids at both sites had above-average calculated milk yields in the 101-105 day RM group (Tables 2 and 3). When averaged across sites, N49J-3000GT, an NK brand, had much-above average milk yield because of much-above silage yield and an above-average milk/ton value. Also, HL SR59 from Hyland Seed and 86T82-3000GT, a Garst brand, continued to excel under NY growing conditions, especially at the Groveland Station site. The Garst hybrid, 86T82-3000 GT, again had much-above-average silage yield and an above-average milk/ton value; and HL SR59 once again had much-above silage yield. Likewise, 530 from Master's Choice had its second consecutive excellent year in NY with much-above average milk yields because of much-above average silage yield. New hybrids, P0125HR from Pioneer and 5667 GT3 from GROWMARK FS, which performed exceptionally well at Aurora, and DKC52-59 from DEKALB had above-average milk yields because of above-average silage yields and milk/ton values. The Pioneer hybrids, 35F40 and 36V53, which performed very well at Groveland Station, also had above-average milk yields with 35F40 having an-above-average silage yield and 36V53 having an above-average silage yield and milk/ton value. The new hybrids, TA 545-20 from T.A. Seeds and HL B77R from Hyland Seed, had above-average milk yields because of above-average silage yields. The hybrid, 553 GRB from Doeblers PA, which performed very well at Groveland Station, had above-average milk yield mainly because of its above-average milk/ton value.

Nine hybrids at Aurora and eight hybrids at Groveland Station had above-average calculated milk yields in the 106-110 day RM group (Tables 2 and 3). When averaged across sites, the new hybrid, P1011XR from Pioneer, had much-above average milk yield because of much-above average silage yield. New hybrids from DEKALB, DKC58-83 and 209-77VT3 from Channel, which performed exceptionally well at Groveland Station, had much-above milk yield with both hybrids having much-above silage yields and above-average milk/ton values. The older hybrid, 1084L HX (5<sup>th</sup> year of testing) from LICA, and the new hybrid from Wolf River Valley, 2114LHX, both of which performed exceptionally well at Aurora, had much-above milk yields because of much-above silage yields. New hybrids, 85V88-3000GT, a Garst brand, and V4884HTXRNS from Dyna-Gro, had above-average milk yield because of above-average silage yields and milk/ton values. The hybrid DKC59-64 from DEKALB and the new hybrid, 210-61VT3 from Channel, both of which performed very well at Groveland Station, had high milk yields

because of above-average silage yields. The brown midrib hybrid, F2F622 from Mycogen, performed well in NY for the second consecutive year with above-average milk yield because of its much-above milk/ton values.

Six hybrids at Aurora and eight hybrids at Groveland Station had above-average calculated milk yields in the 111-115 day RM group (Tables 2 and 3). When averaged across sites, DKC67-88 from DEKALB had much-above average milk yields for the third consecutive year because of much-above silage yields. New hybrids, DKC63-84 from DEKALB and V5294HTXRNS from Dyna-Gro, which performed exceptionally well at Groveland Station, also had much-above milk yields with both hybrids having much-above silage yields and above-average milk/ton values. New hybrids, P1173HR from Pioneer, 7000 GT from GROWMARK FS, and TA 657-13VP from T.A. Seeds, and an older hybrid, DKC61-69 from DEKALB, had above-average milk yields because of above-average silage yields and milk/ton values. Also, a new hybrid, 214-VT3P from Channel, which performed well at Groveland Station, had above-average milk yield because of above-average silage yield.

### **Sackets Harbor and Madrid**

The 2010 growing season in Northern NY was the 5<sup>th</sup> warmest at Watertown since 1940 (Table 1). The Sackets Harbor site had about the same number of total GDD from 1 May through August as the Aurora site, which typically has 250 more GDD during the growing season. Both sites were dry in May and the Sackets Harbor site was exceedingly dry for a 4-week period from late July until 22 August (only 0.26 inches of precipitation). Nevertheless, the 80-85 day RM hybrids averaged 23.5 tons/acre, the 91-95 day RM hybrids (two brown midrib hybrids) yielded 22.9 tons/acre, and the 96-100 day RM hybrids yielded 24.0 tons/acre at Sackets Harbor (Table 4). In contrast, the Madrid site had no dry conditions in August and the 85-100 day hybrids yielded 24.4 tons/acre, the 91-95 day hybrids yielded 27.5 tons/acre, and the 96-100 day hybrids yielded 29.1 tons/acre (Table 5).

Six hybrids at Sackets Harbor and eight hybrids at Madrid had above-average calculated milk yields in the 85-90 day RM group (Tables 4 and 5). When averaged across sites, 87S9 from LICA had much-above milk yields because of much-above silage yields at both sites. Also, HL SR35 from Hyland Seed continued to perform well in NY with much above average milk yield associated with much-above silage yield at both sites. The new hybrid, 480 from Master's Choice, also had much-above milk yield because of much-above average silage yield and

above-average milk/ton value at both sites. New hybrids, ST-9789 from Dairyland and HL B24R, which performed exceptionally well at Madrid, had above-average milk yields because ST-9789 had an above-average milk/ton value and HL B24R had above-average silage yield. The 84-day hybrid, TA290-11, continued to perform well in Northern NY with much-above milk yield because of above-average silage yields and an above-average milk/ton value.

Ten hybrids at Sackets Harbor and nine hybrids at Madrid had above-average milk yields in the 91-95 day RM group (Tables 4 and 5). When averaged across sites, Hi.DF.-3195-Q had much above-average milk yields, mainly because of its extraordinary silage yield at Madrid. Once again, 946 LRR from LICA (5<sup>th</sup> year in the test) and 478SL from Doebler's (2<sup>nd</sup> year in test), had much-above average milk yields in Northern NY because of much-above silage yields. New hybrids, DS95RB from Croplan and DKC45-52 from DEKALB, had much-above average milk yields because of an above-average silage yield and milk/ton value for DS95RB and much-above average silage yield from DKC45-52. New hybrids, TA 451-19 from T.A. Seeds and N34N-3000GT, an NK brand, had above-average milk yields, because of an above-average silage yield and milk/ton value for TA451-19 and above-average silage yield for N34N-3000GT. The Mycogen hybrid, TMF2L418, which performed very well at Sackets Harbor, continued to have above-average milk yield because of above-average silage yield as did the new hybrid, H9407BRC from Hyland Seed. The brown midrib hybrid, F2F383 from Mycogen, which was only tested at Sackets Harbor because of late arrival of the seed, had above-average milk yield at Sackets Harbor of its much-above milk/ton value.

Three hybrids at Sackets Harbor and two hybrids at Madrid had above-average calculated milk yields in the 96-100 day RM group (Tables 4 and 5). When averaged across sites, new hybrids, 5288VT3 from GROWMARK FS and 2702 L from Wolf River Valley, had much above-average milk yields because of much-above silage yields. Another new hybrid from Wolf River Valley, 2596 LRR, had above-average milk yield because of above-average silage yield and above-average milk/ton value.

## **CONCLUSION**

The 2010 growing season in New York was one of the warmer growing seasons in NY, which probably contributed to the record state corn yields in NY (150 bushels/grain but silage has not been reported as of this date). The results of this study will be incorporated into the recommended corn silage tables in our annual Cornell Guide for Integrated Field Crop

Management. We only list hybrids that have above-average relative calculated milk yields in their hybrid RM group (i.e. 96-100, 101-105 day RM, etc.). We also list the relative silage yields and milk/ton values for the recommended hybrids. Look for the updated recommended hybrids first in our December 2010 newsletter, **What's Cropping Up?** (soon 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 2011 so we can provide the best information under New York growing conditions to our New York dairy producers.

Table 1. Monthly and seasonal precipitation and growing degree days (GDD, 86-50 F system) at the four experimental sites for the 2010 Cornell corn silage hybrid trials.

Month	Precipitation				GDD (86-50 F)			
	Aurora	Sparta Farms*	Sackets**	Madrid***	Aurora	Sparta Farms*	Sackets**	Madrid**
May	2.22	2.18	1.86	1.60	414	407	401	381
June	5.24	5.39	6.06	6.66	521	559	490	452
July	4.26	3.97	3.54	4.13	694	726	712	517
August	5.83	4.20	2.48	4.10	627	651	636	587
<b>Seasonal</b>	<b>17.55</b>	<b>15.74</b>	<b>13.94</b>	<b>16.49</b>	<b>2256</b>	<b>2343</b>	<b>2239</b>	<b>2062</b>
<p>*Weather data from Dansville.  **Weather from Watertown  *** Weather data from Canton</p>								

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 2010.

Brand/Company	Hybrid	Yield tons @65	Moisture %DM	NDF %DM	30h- NDFD %	CP %DM	Starch %DM	Milk/ton lbs/ton	Milk Yield lbs/acre
<b>95 to 100-d RM</b>									
Dyna-Gro	D39QN29	26.2	64.9	39.7	61.2	8.9	35.0	3578	32889
Mycogen	TMF2L533	27.3	66.3	44.2	58.3	7.8	31.6	3366	32215
T.A. Seeds	TA 477-08	25.0	62.4	35.9	57.9	7.9	38.4	3533	30794
T.A. Seeds	TA 489-00F	25.3	63.7	41.3	59.5	8.0	33.5	3469	30626
T.A. Seeds	TA 501-12	25.8	66.9	42.4	56.3	8.0	32.9	3371	30484
Hyland	HL STV50	24.0	63.0	43.2	66.0	7.7	33.8	3608	30325
Doebler's	495XY	25.0	64.3	39.9	57.1	7.6	35.7	3457	30175
Dairyland	HiDF 3195-Q	23.6	64.6	39.2	57.6	7.9	35.2	3499	28886
LICA	1900 F/RR/HTX	24.2	65.6	41.1	55.1	7.6	34.3	3354	28427
Hyland	HL CVR64	22.9	63.1	36.9	56.4	8.5	37.9	3537	28279
	<b>Average</b>	<b>24.9</b>	<b>64.5</b>	<b>40.4</b>	<b>58.5</b>	<b>8.0</b>	<b>34.8</b>	<b>3477</b>	<b>30310</b>
<b>101 to 105-d RM</b>									
Growmark FS	5667 GT3	27.0	64.8	38.1	56.8	7.7	36.7	3508	33080
Master's Choice	530	27.1	67.6	40.4	56.3	7.8	34.7	3442	32647
T.A. Seeds	TA 557-00F	26.9	62.1	43.7	59.0	8.0	32.1	3410	32089
NK	N49J-3000GT	26.2	65.0	40.4	59.0	7.5	35.8	3488	32004
Pioneer	P0125HR	26.0	64.8	37.1	56.1	7.8	37.6	3513	31954
Hyland	HL SR59	28.0	65.9	43.9	54.3	7.8	30.2	3233	31674
Hyland	HL B77R	26.1	67.2	42.4	57.6	8.0	32.8	3396	30998
DEKALB	DKC52-59	25.4	65.9	38.7	56.8	8.0	35.8	3489	30951
Garst	86T82-3000GT	25.4	65.5	40.3	58.5	7.6	34.6	3454	30701
T.A. Seeds	TA 545-20	25.4	65.9	40.3	56.8	7.6	35.2	3430	30528
Pioneer	P0115XR	25.2	65.6	39.1	55.1	7.8	36.0	3443	30389
Doebler's	558BMB	23.0	55.9	37.9	69.3	7.7	38.0	3743	30100
Pioneer	35F40	24.7	67.4	40.6	57.8	7.9	34.1	3428	29645
Pioneer	36V53	23.8	66.0	38.5	58.3	8.1	35.8	3535	29366
Dairyland	St-9703Q	24.1	67.0	40.3	54.2	7.6	35.2	3370	28371
Doebler's	553GRB	22.6	65.7	37.7	57.5	7.7	36.8	3538	27902
Dyna-Gro	V4592VTNS	22.3	66.9	39.7	59.0	9.3	31.8	3500	27337
Channel	201-16VT3P	22.7	66.1	40.9	53.9	7.6	33.5	3357	26590
T.A. Seeds	TA 525-13V	22.0	66.4	42.2	54.5	7.8	33.1	3310	25416
	<b>Average</b>	<b>24.9</b>	<b>65.4</b>	<b>40.1</b>	<b>57.4</b>	<b>7.9</b>	<b>34.7</b>	<b>3452</b>	<b>30091</b>

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Brand/Company	Hybrid	Yield tons @65	Moisture %DM	NDF %DM	30h- NDFD %	CP %DM	Starch %DM	Milk/ton lbs/ton	Milk Yield lbs/acre
<b>106 to 110-d RM</b>									
Pioneer	P1011XR	30.8	61.5	39.5	58.6	8.1	36.6	3513	37858
LICA	1084L HX	31.0	59.8	43.5	57.5	7.9	33.9	3375	36613
DEKALB	DKC58-83	29.6	59.1	38.0	56.1	7.7	39.1	3497	36182
Wolf River Valley	2114 LHX	29.8	60.6	45.9	58.9	7.5	32.5	3356	34977
Doebler's	611XY	28.3	57.0	39.2	57.0	7.4	38.9	3471	34361
Dyna-Gro	V4884HTXRNS	27.9	62.1	38.3	56.4	8.2	36.6	3487	34096
Garst	85V88-3000GT	27.1	56.5	36.6	57.7	7.0	41.2	3585	33951
T.A. Seeds	TA 565-18	27.5	58.9	39.5	59.1	7.2	37.8	3525	33837
Channel	209-77VT3	27.7	60.4	39.0	55.7	7.7	39.1	3450	33410
DEKALB	DKC57-50	27.1	58.0	38.1	56.6	7.3	38.5	3477	32940
Mycogen	F2F622	25.3	61.1	41.3	69.0	7.8	35.6	3689	32644
Channel	210-61VT3	26.8	59.6	39.6	53.2	7.8	37.9	3400	31885
DEKALB	DKC59-64	27.2	60.9	40.9	52.4	7.5	36.4	3315	31560
LICA	21SG15	26.7	58.8	41.9	54.3	7.5	37.9	3347	31292
T.A. Seeds	TA 575-19	25.2	62.0	38.2	56.2	7.7	37.3	3499	30881
Doebler's	608BMC	22.1	61.6	39.6	68.0	7.9	37.3	3725	28793
Mycogen	F2F665	20.6	68.6	41.9	65.2	7.7	35.2	3618	26057
	<b>Average</b>	<b>27.1</b>	<b>60.4</b>	<b>40.1</b>	<b>58.3</b>	<b>7.6</b>	<b>37.2</b>	<b>3490</b>	<b>33020</b>
<b>111 to 115-d RM</b>									
DEKALB	DKC67-88	31.8	62.0	40.7	56.6	7.6	36.6	3433	38204
DEKALB	DKC63-84	30.4	61.5	37.8	56.5	8.0	38.6	3528	37544
LICA	22S17	30.8	63.2	45.7	58.4	7.9	30.7	3333	35924
T.A. Seeds	TA 689-00F	29.9	61.6	43.3	57.7	7.9	33.2	3389	35395
Pioneer	P1173HR	28.3	63.5	37.5	58.5	7.8	38.0	3556	35167
Dyna-Gro	V5294HTXRNS	28.2	62.5	38.3	55.8	8.2	35.8	3480	34307
Growmark FS	7007 GT	27.4	63.1	40.0	59.7	8.1	35.8	3519	33694
T.A. Seeds	TA 657-13VP	27.4	59.9	37.3	55.2	7.5	39.9	3510	33644
Channel	214-14VT3P	27.9	61.4	39.2	53.6	8.0	37.1	3427	33462
DEKALB	DKC61-69	27.3	62.3	38.2	52.6	7.8	36.5	3384	32288
T.A. Seeds	TA 700-11	25.7	63.3	40.5	59.2	7.6	36.9	3480	31393
RPM	615HRQ	26.3	62.1	40.8	51.2	7.5	35.3	3299	30321
	<b>Average</b>	<b>28.4</b>	<b>62.2</b>	<b>39.9</b>	<b>56.2</b>	<b>7.8</b>	<b>36.2</b>	<b>3445</b>	<b>34278</b>
	<b>LSD 0.10</b>	<b>2.27</b>	<b>1.57</b>	<b>2.07</b>	<b>1.73</b>	<b>0.28</b>	<b>2.37</b>	<b>87</b>	<b>2815</b>
	Overall Mean	26.4	63.0	40.1	57.5	7.8	35.7	3463	31926

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 2010.

Brand/Company	Hybrid	Yield tons @65	Moisture %DM	NDF %DM	30h- NDFD %	CP %DM	Starch %DM	Milk/ton lbs/ton	Milk Yield lbs/acre
<b>95 to 100-d RM</b>									
Dyna-Gro	D39QN29	28.9	62.1	33.5	62.2	9.5	40.5	3672	37201
Mycogen	TMF2L533	29.0	64.5	38.5	59.9	8.4	36.4	3461	35097
T.A. Seeds	TA 477-08	26.9	62.1	34.9	61.4	8.5	40.7	3618	33970
Hyland	HL STV50	27.4	62.9	37.4	60.4	8.1	38.3	3517	33760
LICA	1900 F/RR/HTX	27.7	63.8	35.9	57.5	8.2	39.5	3458	33529
TA Seeds	TA 501-12	25.5	65.9	36.3	59.4	8.5	37.5	3519	31438
Doebler's	495XY	22.1	61.8	35.0	60.7	8.4	40.0	3595	27826
Dairyland	HiDF 3195-Q	21.7	63.7	35.7	62.7	9.1	38.9	3608	27338
T.A. Seeds	TA 489-00F	21.4	63.1	37.2	61.0	9.1	35.8	3500	26178
Hyland	HL CVR64	20.8	63.4	36.0	58.2	10.0	35.0	3448	25057
	<b>Average</b>	<b>25.1</b>	<b>63.3</b>	<b>36.0</b>	<b>60.4</b>	<b>8.8</b>	<b>38.3</b>	<b>3539</b>	<b>31139</b>
<b>101 to 105-d RM</b>									
NK	N49J-3000GT	30.2	60.2	35.2	62.0	7.8	41.8	3593	37966
Hyland	HL SR59	30.8	65.7	38.3	59.2	8.4	35.6	3435	37105
Garst	86T82-3000GT	29.1	62.1	34.2	60.3	7.9	40.3	3588	36582
Doebler's	553GRB	28.5	62.0	33.3	60.4	8.0	41.2	3617	36049
Pioneer	35F40	28.2	65.0	35.8	60.3	8.4	39.2	3531	34792
Pioneer	36V53	28.2	63.2	38.1	62.8	8.2	38.9	3525	34761
Master's Choice	530	28.0	67.0	35.5	58.3	8.4	38.9	3524	34444
DEKALB	DKC52-59	27.1	61.6	35.5	60.6	8.0	40.7	3563	33704
Pioneer	P0125HR	27.0	63.0	34.7	60.4	8.3	39.8	3561	33640
T.A. Seeds	TA 545-20	26.9	63.5	35.1	60.5	8.1	38.7	3558	33531
Channel	201-16VT3P	27.5	62.2	37.4	58.4	7.8	38.3	3452	33203
Hyland	HL B77R	27.6	67.7	38.3	57.9	8.5	34.5	3408	32973
Growmark FS	5667 GT3	26.2	64.2	35.2	60.0	8.2	38.6	3512	32187
Dyna-Gro	V4592VTNS	24.9	66.1	34.1	62.8	9.7	37.0	3635	31654
Pioneer	P0115XR	24.4	63.9	35.4	61.1	8.6	38.8	3558	30414
T.A. Seeds	TA 557-00F	24.5	62.0	37.1	61.3	9.1	35.7	3529	30249
Dairyland	St-9703Q	24.0	65.1	36.1	58.1	8.5	37.9	3489	29267
T.A. Seeds	TA 525-13V	21.8	66.4	38.7	59.2	8.5	37.2	3431	26111
Doebler's	558BMB	19.1	64.6	38.4	72.8	8.8	34.3	3691	24627
	<b>Average</b>	<b>26.5</b>	<b>64.0</b>	<b>36.1</b>	<b>60.9</b>	<b>8.4</b>	<b>38.3</b>	<b>3537</b>	<b>32803</b>

*Continued on the following page*

Brand/Company	Hybrid	Yield tons @65	Moisture %DM	NDF %DM	30h- NDFD %	CP %DM	Starch %DM	Milk/ton lbs/ton	Milk Yield lbs/acre
<b>106 to 110-d RM</b>									
Channel	209-77VT3	30.5	64.3	35.5	58.9	8.6	39.1	3510	37388
Pioneer	P1011XR	29.9	67.6	38.9	60.8	9.2	33.4	3436	35985
DEKALB	DKC 59-64	30.2	66.0	37.8	56.2	7.8	37.9	3384	35762
DEKALB	DKC 58-83	28.8	65.0	36.3	59.9	8.5	37.7	3525	35488
Channel	210-61VT3	29.0	66.1	38.6	59.1	8.7	35.4	3441	34899
Garst	85V88-3000GT	28.7	64.6	36.6	56.9	7.8	38.8	3440	34575
Dyna-Gro	V4884HTXRNS	27.6	68.9	36.1	60.6	9.4	35.8	3538	34131
Wolf River Valley	2114 LHX	28.2	68.0	41.5	62.1	8.8	32.1	3407	33590
Mycogen	F2F622	25.5	68.3	41.2	71.5	8.8	31.8	3640	32539
LICA	1084L HX	27.2	67.8	41.4	61.5	8.4	32.3	3374	32096
LICA	21SG15	27.4	68.1	41.1	56.8	8.6	32.3	3319	31879
T.A. Seeds	TA 565-18	26.2	65.6	37.5	59.8	8.1	36.5	3469	31852
T.A. Seeds	TA 575-19	25.9	66.4	37.6	58.9	8.3	37.3	3497	31734
Doebler's	611XY	24.8	65.4	37.3	60.4	8.4	37.2	3499	30340
Mycogen	F2F665	24.1	68.4	40.9	70.3	8.9	30.5	3558	30060
DEKALB	DKC 57-50	24.9	64.2	37.7	58.5	8.1	38.3	3448	30060
Doebler's	608BMC	22.9	68.8	37.0	69.4	8.7	34.5	3607	28836
	<b>Average</b>	<b>27.2</b>	<b>66.7</b>	<b>38.4</b>	<b>61.3</b>	<b>8.5</b>	<b>35.3</b>	<b>3476</b>	<b>33012</b>
<b>111 to 115-d RM</b>									
Dyna-Gro	V5294HTXRNS	31.1	68.5	35.2	59.9	8.8	37.1	3581	38960
DEKALB	DKC67-88	33.3	68.2	41.9	59.7	8.7	32.1	3339	38912
DEKALB	DKC63-84	30.5	66.4	36.7	59.5	8.6	37.7	3502	37375
Channel	214-14VT3P	30.2	67.1	37.6	57.7	8.8	36.1	3437	36331
Growmark FS	7007 GT	29.0	67.1	38.4	63.1	9.0	36.6	3522	35817
Pioneer	P1173HR	29.1	68.2	37.4	61.2	8.4	37.8	3516	35777
T.A. Seeds	TA 657-13VP	29.4	65.6	36.7	57.0	8.4	38.7	3476	35709
DEKALB	DKC61-69	28.7	65.9	36.6	58.3	8.6	38.4	3491	35071
T.A. Seeds	TA 700-11	25.0	67.6	38.5	62.3	8.5	35.5	3504	30678
LICA	22S17	25.5	70.0	42.0	58.8	8.9	30.1	3245	28979
T.A. Seeds	TA 689-00F	24.1	67.9	41.7	57.0	8.7	32.2	3277	27643
RPM	615HRQ	21.4	68.0	40.7	61.1	9.1	31.6	3397	25416
	<b>Average</b>	<b>28.1</b>	<b>67.5</b>	<b>38.6</b>	<b>59.6</b>	<b>8.7</b>	<b>35.3</b>	<b>3440</b>	<b>33889</b>
	<b>LSD 0.10</b>	<b>2.28</b>	<b>1.35</b>	<b>2.02</b>	<b>1.31</b>	<b>0.42</b>	<b>1.90</b>	<b>78</b>	<b>3061</b>
	Overall Mean	26.8	65.4	37.3	60.6	8.6	36.8	3499	32802

Table 4. 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 2010.

Brand/Company	Hybrid	Yield Tons @65	Moisture %DM	NDF %DM	30h- NDFD %	CP %DM	Starch %DM	Milk/ton lbs/ton	Milk Yield lbs/acre
<b>85 to 90-d RM</b>									
LICA	87S9	27.7	69.2	42.1	59.3	8.7	33.1	3395	32968
Hyland	HL SR35	26.4	70.5	42.3	58.8	9.1	32.9	3373	31191
Dairyland	ST-7985	25.9	68.8	40.4	54.6	8.3	35.9	3333	30170
Master's Choice	480	24.9	70.1	40.4	56.1	8.8	34.4	3383	29446
T.A. Seeds	TA 290-11	24.1	68.7	41.0	58.3	8.7	35.3	3416	28787
Pioneer	P8906HR	23.8	66.9	41.4	58.7	9.0	33.8	3403	28298
Dairyland	ST-9789	23.1	70.5	39.5	58.3	9.1	34.8	3418	27538
DEKALB	DKC38-89	22.7	71.1	39.5	57.5	9.0	34.1	3399	27028
RPM	435 HRQ	22.9	71.5	42.0	55.7	8.8	31.7	3318	26579
Hyland	HL B24R	23.2	69.6	42.8	55.8	8.5	31.1	3270	26530
Doebler's	281 XY	21.8	68.6	40.1	57.6	8.7	35.3	3409	26038
LICA	1890 F	20.6	70.7	41.8	60.0	8.7	33.9	3392	24443
DEKALB	DKC36-34	18.9	69.3	41.8	57.0	9.6	30.5	3304	21805
	<b>Average</b>	<b>23.5</b>	<b>69.6</b>	<b>41.2</b>	<b>57.5</b>	<b>8.8</b>	<b>33.6</b>	<b>3370</b>	<b>27755</b>
<b>91 to 95-d RM</b>									
LICA	946 LRR	26.2	69.7	43.0	62.1	8.1	33.6	3442	31606
Croplan	DS95RB	24.6	70.4	41.9	61.4	9.0	32.5	3427	29442
T.A. Seeds	TA 451-19	24.8	70.0	39.2	55.8	9.0	35.1	3381	29374
Mycogen	TMF2L418	24.4	71.5	42.7	58.4	8.7	30.1	3325	28396
Doebler's	478SL	23.9	71.1	43.2	60.3	8.4	31.3	3385	28298
NK	N34N-3000GT	24.4	70.9	43.1	56.0	8.4	32.1	3261	27881
Pioneer	38H08	23.9	67.7	41.1	56.5	8.0	34.7	3336	27822
Pioneer	P9512XR	24.5	68.6	43.2	53.5	8.1	32.0	3231	27639
Croplan	3514 VT3	22.8	71.4	40.6	59.5	8.7	33.6	3417	27308
Mycogen	F2F383	21.3	72.2	44.7	74.5	8.9	29.1	3650	27181
DEKALB	DKC45-52	23.4	71.8	42.1	57.0	8.7	32.6	3297	26989
Dairyland	HiDF 3195-Q	23.7	71.8	44.5	56.5	8.7	31.1	3246	26875
T.A. Seeds	TA 327-20	22.4	68.4	40.3	57.1	8.4	36.1	3392	26599
NK	N29T-3000GT	22.4	70.7	39.2	54.6	8.5	35.4	3374	26366
T.A. Seeds	TA 370-11	21.9	70.7	39.6	53.2	8.4	34.6	3323	25399
Doebler's	491BMB	19.6	72.3	40.0	74.5	8.9	32.3	3691	25324
Hyland	HL B42R	22.2	71.9	41.8	54.1	9.6	31.1	3246	25171
Dyna-Gro	34VN19	20.9	73.6	41.7	59.1	9.3	31.7	3391	24778
Hyland	HL B40R	20.8	70.2	41.0	57.1	9.2	32.3	3352	24335
Hyland	H9407BRC	20.4	71.7	43.2	57.8	8.6	30.9	3324	23650
	<b>Average</b>	<b>22.9</b>	<b>70.8</b>	<b>41.8</b>	<b>58.9</b>	<b>8.7</b>	<b>32.6</b>	<b>3374</b>	<b>27021</b>
<b>96 to 100-d RM</b>									
Wolf River Valley	2596 LRR	26.8	69.9	43.1	63.1	8.6	33.0	3454	32390
Growmark FS	5288VT3	25.7	70.8	40.9	57.5	8.6	32.7	3385	30397
Wolf River Valley	2702 L	24.6	71.6	42.5	58.7	8.7	30.6	3369	29039
Croplan	3724 VT3	22.6	73.1	40.6	56.9	9.0	32.6	3333	26452
RPM	515HXR	22.8	72.1	44.4	56.9	8.3	30.5	3260	25977
Doebler's	495XY	21.6	70.4	42.5	57.6	8.4	32.5	3315	24957
	<b>Average</b>	<b>24.0</b>	<b>71.3</b>	<b>42.3</b>	<b>58.4</b>	<b>8.6</b>	<b>32.0</b>	<b>3353</b>	<b>28202</b>
	<b>LSD 0.10</b>	<b>2.51</b>	<b>1.45</b>	<b>1.96</b>	<b>1.61</b>	<b>0.41</b>	<b>1.87</b>	<b>91</b>	<b>3145</b>
	Overall Mean	23.3	70.5	41.7	58.4	8.7	32.8	3370	27448

Table 5. 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 2010.

Brand/Company	Hybrid	Yield Tons @65	Moisture %DM	NDF %DM	30h- NDFD %	CP %DM	Starch %DM	Milk/ton lbs/ton	Milk Yield lbs/acre
<b>85 to 90-d RM</b>									
LICA	87S9	27.3	57.1	39.2	54.7	7.7	37.2	3446	33039
Hyland	HL SR35	27.0	57.5	40.4	55.5	7.8	36.3	3434	32383
Hyland	HL B24R	25.7	58.3	38.0	56.2	7.7	38.8	3559	31984
Master's Choice	480	25.7	55.1	36.3	54.0	7.5	40.8	3560	31916
T.A. Seeds	TA 290-11	25.5	54.8	37.7	54.2	7.3	40.1	3520	31441
Dairyland	ST-9789	24.8	60.2	34.4	54.3	7.7	42.8	3605	31230
RPM	435 HRQ	25.3	60.3	36.7	52.6	7.9	38.4	3515	31151
DEKALB	DKC38-89	24.7	57.8	34.7	51.5	7.3	42.2	3543	30661
Dairyland	ST-7985	23.8	57.1	36.9	53.0	7.0	41.7	3498	29049
Pioneer	P8906HR	22.5	55.3	37.4	55.8	7.4	40.9	3540	27797
Doebler's	281 XY	22.7	60.1	38.0	52.0	7.1	39.6	3458	27410
LICA	1890 F	22.0	55.9	36.9	54.0	7.4	40.6	3498	26856
DEKALB	DKC36-34	21.1	56.9	35.4	54.2	7.8	42.0	3581	26381
	<b>Average</b>	<b>24.4</b>	<b>57.4</b>	<b>37.1</b>	<b>54.0</b>	<b>7.5</b>	<b>40.1</b>	<b>3520</b>	<b>30100</b>
<b>91 to 95-d RM</b>									
Dairyland	HiDF 3195-Q	35.2	51.6	37.6	55.0	7.6	38.9	3522	43428
Doebler's	478SL	30.9	59.4	40.7	56.3	7.7	34.8	3473	37502
Hyland	H9407BRC	30.4	58.2	37.4	54.6	7.5	37.5	3507	37321
LICA	946 LRR	30.1	58.6	40.5	55.5	7.1	35.9	3451	36278
Dekalb	DKC 45-52	30.1	56.3	36.8	51.4	7.3	40.7	3432	36136
Dyna-Gro	34VN19	28.8	60.3	36.3	54.8	8.1	39.3	3565	35919
Croplan	DS95RB	28.0	60.7	36.9	57.1	7.9	38.8	3579	35087
NK	N34N-3000GT	28.4	59.2	36.3	52.1	7.6	40.3	3496	34712
NK	N29T-3000GT	27.7	59.2	34.2	51.6	7.5	42.2	3550	34379
Mycogen	TMF2L418	27.6	58.1	37.9	55.1	7.4	38.9	3498	33815
T.A. Seeds	TA 451-19	26.8	59.7	34.2	53.2	7.7	42.5	3585	33589
T.A. Seeds	TA 370-11	27.2	55.5	35.3	50.2	7.0	42.2	3477	33129
Croplan	3514 VT3	26.4	58.7	37.5	56.6	7.5	40.5	3560	32884
Hyland	HL B42R	26.0	59.5	38.0	52.2	7.6	40.9	3435	31249
Hyland	HL B40R	24.6	58.1	38.4	60.7	7.9	36.2	3602	30970
Pioneer	38H08	25.1	58.8	38.3	56.7	7.3	39.4	3521	30913
Pioneer	P9512XR	25.1	58.3	38.6	53.3	7.6	38.6	3473	30501
T.A. Seeds	TA 327-20	23.1	57.7	38.2	56.8	7.0	40.1	3527	28489
Doebler's	491BMB	21.7	59.4	35.4	70.9	7.9	38.2	3715	28163
	<b>Average</b>	<b>27.5</b>	<b>58.3</b>	<b>37.3</b>	<b>55.5</b>	<b>7.5</b>	<b>39.3</b>	<b>3525</b>	<b>33919</b>
<b>96 to 100-d RM</b>									
Growmark FS	5288VT3	32.6	54.8	38.0	53.5	7.7	38.3	3481	39762
Wolf River Valley	2702 L	32.4	55.9	40.6	57.1	7.5	35.3	3496	39630
Doebler's	495XY	28.2	60.1	37.2	54.9	7.4	40.3	3531	34804
Wolf River Valley	2596 LRR	27.2	59.7	37.9	57.9	7.3	39.0	3590	34215
RPM	515HXR	27.7	61.1	39.9	55.6	7.8	40.2	3476	33612
Croplan	3724 VT3	26.8	60.8	37.7	54.7	7.4	39.9	3486	32685
	<b>Average</b>	<b>29.1</b>	<b>58.7</b>	<b>38.5</b>	<b>55.6</b>	<b>7.5</b>	<b>38.8</b>	<b>3510</b>	<b>35784</b>
	<b>LSD 0.10</b>	<b>2.65</b>	<b>3.82</b>	<b>2.39</b>	<b>2.30</b>	<b>0.40</b>	<b>2.33</b>	<b>92</b>	<b>3414</b>
	Overall Mean	26.8	58.0	37.4	55.0	7.5	39.5	3522	32969