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## **NEW YORK CORN SILAGE HYBRID TESTS – 2011**

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## **NEW YORK CORN SILAGE HYBRID TESTS – 2011**

Corn silage hybrids were tested at three locations in New York in 2011. We evaluated 85 to 115-day hybrids in relative maturity (RM) at the Aurora Research Farm in Aurora (Cayuga Co.), 89-115 day RM hybrids at Sparta Farms in Groveland Station (Livingston Co.), and 85-105 day RM hybrids at Cornell's T&R Center in Harford (Cortland Co.). The Aurora and Groveland Station sites average about 2450 growing degree days (GDD, 86-50° system) from May through September, whereas the Harford 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 9 May, the Harford site on 11 May, and the Groveland Station site on 12 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 140 lbs N/acre of side-dressed N at the 4 to 5-leaf (V4 to V5) stage. The other two sites were well-manured dairy sites, which followed perennial forages, so they received no sidedressed N. We used preemergence/postmergence 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 67% moisture range (plus/minus 3%), but some of the later-season hybrids were wetter than planned, especially at Harford, because excessive rainfall in early September re-hydrated the hybrids resulting in moisture contents probably 2% higher than the actual physiological moisture status of the plant..

The Aurora site was harvested on three dates: 85-95 day RM groups on 19 August when hybrids in both maturity groups averaged about 65% moisture. The 96-105 day RM groups were harvested on 23 August when hybrids in both groups averaged about 66%. The 106-115 day hybrids were harvested on 26 August when hybrids averaged about 68.5% moisture.

We harvested all maturity groups at the Groveland Station site on 1 September. Moistures ranged from 66 to 70% across the five maturity groups. Unfortunately, tropical storms dumped 6.88 inches of precipitation at the Harford site in the first 6 days of September so we could not get on to the Harford site until 9 September when moistures ranged from about 68 to 70% across the four maturity groups. Undoubtedly, the almost 7 inches of precipitation resulted in an additional 2 points more in reported hybrid moisture than the actual physiological status of the hybrids.

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 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.

Dry samples were ground to pass a 1 mm screen using a Wiley mill. Duplicate dry samples were analyzed for fiber and digestibility using wet chemistry procedures in Jerry Cherney's lab at Cornell University. Neutral detergent fiber (NDF) was determined according to procedures of Van Soest et al. (1991), using the ANKOM fiber analyzer. In vitro true digestibility (IVTD) was determined by incubating ground samples in buffered rumen fluid for 30 hours (Marten and Barnes, 1980) using the ANKOM incubator. Rumen fluid was obtained from a nonlactating dairy cow fed a mixed hay diet including

a small amount of grain. Digested residues were subject to NDF analysis to determine in vitro true digestibility. NDF digestibility was calculated as the proportion of the NDF digested after 30 hours ( $NDFD = [1 - \{(100 - IVTD) / NDF\}] * 100$ ). The standard deviation for NDF duplicate analyses was 0.80, and the standard deviation for IVTD duplicate analyses was 1.29. Samples were also sent to Dairyland Lab in Wisconsin to determine crude protein (CP), starch, using NIRS. Milk per ton and milk per acre were then calculated using the Milk2006 spreadsheet program (Tables 2-4).

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%**). Also, hybrids that performed above-average at three sites in the 96-105 day RM groups are bolded in the text.

## RESULTS AND DISCUSSION

Exceedingly wet spring conditions (wettest April-May period for many stations in upstate NY), followed by exceptionally dry and warm conditions, especially in July (2<sup>nd</sup> driest and 3<sup>rd</sup> hottest July as well as the 6<sup>th</sup> driest and 5<sup>th</sup> warmest June through August 22<sup>nd</sup> at Aurora in 55 years of records and the 6<sup>th</sup> hottest and driest July at Dansville in 88 years of record keeping) made for a challenging growing season (Table 1). All hybrids were in the tasseling/silking stage between 15-22 at Aurora, 18-25 July at Groveland Station, and 20-27 July at Harford. The week of July 17-24 had average highs of 93- 95 at the three sites. Conditions remained warm and dry at Aurora until August 22<sup>nd</sup> (the 6<sup>th</sup> driest and 5<sup>th</sup> warmest June through August 22<sup>nd</sup> period), 3 days after we started corn silage harvest at Aurora. Consequently, yields were about 35% lower than normal at Aurora and starch levels were relatively low at all three sites because of the hot dry conditions during the silking stage. The low starch levels can be attributed to the small ears and resultant low kernel number and ultimately low starch

concentrations associated with the drought. When averaged across maturity groups at Aurora, average yields for each maturity group ranged from about 17.5 tons/acre (adjusted to 65% moisture) for the 85-105 day hybrids and 18.3 to 19.0 tons for the 106-115 day hybrids (Table 2). At the Groveland Station site, which has a relatively deep soil with high soil water holding capacity, silage yields averaged from 23 to 24.0 tons/acre for all maturity groups (Table 3). The Harford site has a very well-drained Howard gravelly loam soil and thus can be droughty, but yields averaged about 20 tons/acre for the 85-95 day hybrids and 21.5 tons/acre for the 96-105 day hybrids (Table 4).

When averaged across the Aurora and Harford sites, six of the 12 entered hybrids (87S9 from LICA, WRV 2087L from Wolf River Valley, RPM 269HRQ from Doebler's, HiDF 3290-9 from Dairyland Seed Company, and DEKALB hybrids , DKC40-22 GENSS and DKC38-89 VT3) had above-average calculated milk yields in the **85-90 RM** group (Tables 2 and 4). When averaged across sites, 87S9 had the highest calculated milk yield, mainly because of much-above average silage yields at Harford. The hybrid, WRV 2087L, had much-above above-average milk yield because of above-average silage yields at both sites as well as above-average milk/ton values at Harford, associated with high fiber digestibility (Tables 2 and 4). Likewise, RPM 269HRQ, which had above-average milk/ton values at both sites, and HiDF 3290-9, which had above-average silage yield at both sites, had much-above average milk yields. The hybrids, DKC40-22 GENSS and DKC38-89 VT3 had above-average milk yield mainly because of above-average milk/ton values. Also, TA 290-31, an 84 day hybrid from T.A. Seeds, had above-average milk yields at the Harford site.

When averaged across the Aurora and Harford sites, six of the 12 entered hybrids (4217XRR from Growmark, P9917AM1 from Pioneer, 946L RR from LICA, TMF2L418 from Mycogen, DK42-72 VT3 from DEKALB, and NK N29T-3000GT from Syngenta) had above-average milk yield in the **91-95 day RM** group (Tables 2 and 4). The hybrids, 4217XRR, P9917AM1, and 946L RR had much above-average milk yields, mainly associated with above-average silage yields at both sites. The hybrid,

TMF2L418 (entered at Groveland Station and not Aurora) had above-average milk yield because of exceptional silage yield at the Groveland Station site (Table 3). The hybrid, NK N29T-3000GT from Syngenta, had the highest milk yield at Aurora because of above average silage yield and milk/ton value, associated with above-average fiber digestibility. Also, DK42-72 VT3 from DEKALB had above-average milk yield because of an above-average milk/ton values at both sites.

When average across two or three sites, 12 of the 21 hybrids entered in the **96-100 day RM** group had above-average calculated milk yield. **The hybrids, RPM 472XRR from Doebler's and TMF2L533 from Mycogen had much-above average milk yields because of much-above average silage yields at all three sites (Tables 2,3, and 4).** The hybrid, HL SR48 from Hyland Seed, also had much-above average milk yield because of much above-average silage yield, especially at the Groveland Station site. **Also, 478SL from Doebler's and DKC49-94 GENSS from DEKALB, had above-average milk yields at all three sites.** The hybrids 4811GT3 from Growmark , 99S7 from LICA, DKC46-41 GENSS from DEKALB, NG 6550 from Fielder's Choice, TA477-31 from T.A. Seeds, F2F488 from Mycogen (a brown midrib hybrid), and D39QN29 from Dyna-Gro had above-average milk yields when averaged across sites.

When averaged across two or three sites, 10 of the 20 hybrid entries had above-average calculated milk yields in the **101-105 day RM** group. The hybrids P0125HR from Pioneer, TA 545-20 from T.A. Seeds, Garst 86T82-3000GT from Syngenta, TA557-00F from T.A. Seeds and DKC52-59 VT3 from DEKALB had much above-average milk yields (Tables 2, 3 and 4). **The hybrids TA545-20 (exceptional silage yield at Harford), TA557-00F (exceptional silage yield at Aurora), and DKC52-59 VT3 (above-average milk/ton values at Aurora and Harford) had much-above average milk yields across three sites.** The hybrid P0125HR, which had the highest milk yield in the 101-105 hybrid group, had exceptional silage yield at Harford. Garst 86T82-3000GT, which had the highest milk yield at Groveland Station, had above-average silage yield and milk/ton values at Groveland Station and Harford. Also, HiDF 3702-9 from Dairyland Seed Co. (above-average silage yield), **554GRQ from**

**Doebler's (above-average milk/ton values at three sites)**, P0448XR from Pioneer (above-average silage yield), NK N53W-3000GT from Syngenta (above-average silage yield), and Masters Choice 5250 from King's Agriseeds (above-average milk/ton value) had above-average milk yields.

When averaged across Aurora and Groveland Station sites, nine of the 21 hybrid entries had above-average calculated milk yields in the **106-110 day RM** group. The hybrids P1011XR from Pioneer (much-above average silage yield and above-average milk/ton values at both sites); WRV 2114 L from Wolf River Valley (much-above average silage yield at both sites); 5667GT3 from Growmark FS and P0210HR from Pioneer (above average silage yields and above-average milk/ton values at both sites); and 1084 LHX from LICA and 209-85VT3P from Channel Bio (above average silage yields at both sites) had much above-average milk yields (Tables 2 and 3). Also, Garst 85E98-3000GT (above-average milk/ton values at both sites), 50VN10 from Dyna-Gro (above-average silage yields at both sites) and Masters Choice 535 from King's Agriseeds (above-average milk/ton values at both sites) had above-average milk yields.

When averaged across Aurora and Groveland Station sites, six of the 11 hybrid entries had above-average calculated milk yields in the **111-115 day RM** group. The hybrids 214-14VT3P from Channel Bio (above-average silage yields at both sites), DKC63-84 VT3 (above-average silage yields and milk/ton values at both sites) and DKC62-54 VT3 from DEKALB (above-average milk/ton values at both sites) had much above-average milk yields (Tables 2 and 3). The hybrids V5294HTXRNS from Dyna-Gro (much above-average silage yield at Groveland Station), 6611GT3 from Growmark FS (above-average silage yields at both sites), and P1498HR from Pioneer (above-average silage yield and milk/ton value at Aurora) had above-average milk yields.

## **CONCLUSION**

The 2011 growing season was one of the most challenging growing seasons because of the exceedingly wet spring, followed by an exceedingly warm and dry July,

and topped off with one of the wettest September-October periods on record for many locations in upstate NY. 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 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. Look for the updated recommended hybrids first in our December 2011 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 2012 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 Aurora, Sparta Farms (Groveland Station), and Cornell's T&R Center (Harford) during the 2011 growing season for the Cornell corn silage hybrid trials.

Month	Precipitation			GDD (86-50 F)		
	Aurora	Sparta Farms**	Harford	Aurora	Sparta Farms**	Harford
May	3.56	5.52	4.74	334	371	295
June	2.78	2.26	3.88	508	543	448
July	0.85	1.02	0.61	702	728	616
August	2.39*	5.23	7.48	590	619	500
September	-	-	6.88***	-	-	132*
<b>Seasonal</b>	<b>9.58</b>	<b>14.03</b>	<b>23.59</b>	<b>2134</b>	<b>2261</b>	<b>2001</b>
*Through 8/25. **Weather from Dansville *** Through 9/9.						

**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 2011.**

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>									
Dairyland Seed	HiDF 3290-9	18.4	64.7	43.8	49.7	7.7	29.9	3277	21010
Doebler's	RPM 269HRQ	19.0	63.7	42.6	46.3	7.8	30.6	3144	20875
Wolf River Valley	WRV 2087L	18.2	65.0	46.1	48.3	7.8	24.1	3023	19093
Dekalb	DKC38-89 VT3	16.7	65.6	43.9	52.7	7.9	28.3	3264	19002
TA Seeds	TA 290-31	17.7	62.7	44.0	46.3	7.4	29.3	3055	18816
Dekalb	DKC40-22 GENSS	16.8	66.5	47.3	49.9	7.7	26.6	3168	18617
LICA	87S9	18.9	64.7	42.5	46.9	7.7	24.2	2810	18605
Doebler's	329GRQ	17.7	65.1	42.8	43.7	7.8	29.4	3012	18575
Pioneer	P8906HR	16.7	61.8	42.6	47.3	7.9	29.4	3118	18215
King's Agriseeds	Masters Choice 480	16.4	63.3	41.9	47.0	7.5	31.0	3168	18189
LICA	HHG 20C11	18.3	65.6	44.9	50.2	8.0	21.6	2841	18085
<b>Average</b>		<b>17.7</b>	<b>64.4</b>	<b>43.9</b>	<b>48.0</b>	<b>7.7</b>	<b>27.7</b>	<b>3080</b>	<b>19007</b>
<b>91 to 95-d RM</b>									
Syngenta	NK N29T-3000GT	18.6	65.1	45.3	51.8	7.4	29.7	3273	21195
Pioneer	P9917AM1	19.1	65.0	42.3	46.4	7.6	28.4	3057	20449
Dekalb	DKC42-72 VT3	17.7	65.5	44.4	48.0	7.6	29.2	3197	19824
Growmark FS	4217XRR	18.3	65.5	42.4	44.8	7.9	28.5	3048	19304
LICA	946L RR	19.1	65.3	43.5	45.9	7.2	25.1	2856	19027
TA Seeds	TA 370-11	17.2	65.8	43.9	50.9	7.8	28.5	3155	18772
Pioneer	38H08	17.9	63.9	44.6	45.2	7.6	26.6	2986	18685
Fielder's Choice	NG 6455	17.3	67.0	42.7	44.7	7.8	27.2	2991	18037
TA Seeds	TA 451-20	15.8	65.1	44.8	50.0	7.8	28.0	3188	17490
Mycogen	F2F387	16.3	66.8	44.6	58.9	7.8	20.9	3015	17159
Fielder's Choice	NG 6376	18.0	65.8	40.6	43.7	7.9	25.3	2730	17079
<b>Average</b>		<b>17.8</b>	<b>65.5</b>	<b>43.6</b>	<b>48.2</b>	<b>7.7</b>	<b>27.0</b>	<b>3045</b>	<b>18820</b>
<b>96-100-d RM</b>									
Dekalb	DKC46-61 GENSS	18.9	64.7	41.8	46.3	7.3	30.4	3182	21065
Doebler's	RPM 472XRR	19.1	64.8	40.0	43.8	7.3	31.2	3109	20795
Dyna-Gro	D39QN29	17.7	66.7	39.9	51.4	8.7	29.2	3263	20220
Fielder's Choice	NG 6550	19.1	66.5	41.2	44.3	7.6	28.6	2971	19996
LICA	99S7	18.3	63.7	43.8	48.6	7.5	27.5	3072	19716
Dyna-Gro	D40SS09	19.2	66.3	42.7	45.9	7.2	25.9	2885	19401
Doebler's	459GRQ	17.4	63.1	42.2	45.8	7.2	30.8	3162	19325
Mycogen	TMF2L533	19.2	66.4	49.2	48.5	7.1	20.3	2826	19080
Doebler's	478SL	17.5	64.0	44.8	49.6	7.6	25.7	3102	19074
Dekalb	DKC49-94 GENSS	17.0	64.8	41.4	47.1	8.2	29.8	3173	18920
Growmark FS	4811GT3	18.1	63.3	42.6	41.7	7.0	28.8	2953	18786
Dekalb	DKC48-37 VT3	16.7	64.1	41.9	47.6	7.4	29.8	3150	18455
TA Seeds	TA 481-20ND	16.5	67.2	41.6	54.5	8.5	26.0	3174	18361
TA Seeds	TA 477-31	16.5	65.8	42.4	48.2	7.8	28.1	3145	18178
Mycogen	F2F488	16.2	65.7	42.0	50.7	8.0	27.4	3149	18043
Channel Bio	200-91VT3P	16.5	66.1	42.7	45.5	7.8	28.1	3075	17895
Syngenta	NK N34N-3111	16.8	64.8	42.8	46.5	7.6	27.3	3002	17738
Dairyland Seed	HiDF 3297-9	16.1	64.0	43.3	43.2	7.6	29.5	3072	17257
LICA	HHG 29B11	16.8	65.0	45.6	49.9	8.0	22.2	2910	17026
<b>Average</b>		<b>17.6</b>	<b>65.1</b>	<b>42.7</b>	<b>47.3</b>	<b>7.6</b>	<b>27.7</b>	<b>3072</b>	<b>18912</b>

Brand/Company	Hybrid	Yield tons @65	Moisture %DM	NDF %DM	30h-	CP %DM	Starch %DM	Milk/ton lbs/ton	Milk Yield lbs/acre
					NDFD %				
<b>101-105-d RM</b>									
TA Seeds	TA 557-00F	20.2	62.8	44.8	48.8	7.7	26.5	3141	22328
TA Seeds	TA 545-20	19.0	65.8	42.5	50.4	7.2	27.0	3080	20706
Pioneer	P0125HR	18.4	66.6	42.2	49.2	7.2	29.2	3194	20667
Dekalb	DKC52-59 VT3	17.7	66.0	42.0	50.8	8.0	30.4	3310	20601
Pioneer	P0448XR	19.0	64.6	43.7	43.1	7.0	28.4	2996	20029
TA Seeds	TA 551-16ND	18.1	67.8	39.9	50.8	8.3	25.9	2967	18734
Syngenta	NK N53W-3000GT	17.5	66.5	41.8	48.0	7.2	27.0	2982	18391
Doebler's	554GRQ	16.4	65.5	41.5	50.3	7.3	28.7	3167	18252
Dyna-Gro	D43VN22	16.2	68.5	40.8	49.6	8.0	29.0	3175	18049
LICA	HHG 4611	17.5	67.5	47.6	48.4	7.7	20.8	2839	17537
Wolf River Valley	WRV 2702L	16.5	64.8	44.2	47.1	7.5	25.6	2980	17335
Dekalb	DKC53-45 GENSS	16.0	67.7	44.5	49.7	7.5	25.7	3049	17163
Doebler's	558BMB	13.0	65.3	39.8	56.3	7.8	29.3	3327	15139
<b>Average</b>		<b>17.4</b>	<b>66.1</b>	<b>42.7</b>	<b>49.4</b>	<b>7.6</b>	<b>27.2</b>	<b>3093</b>	<b>18841</b>
<b>106 to 110-d RM</b>									
Pioneer	P1011XR	20.8	68.0	45.7	49.7	7.3	25.3	3090	22556
Pioneer	P0210HR	20.2	67.0	43.2	45.4	7.2	28.5	3078	21734
Wolf River Valley	WRV 2114L	20.0	68.1	48.9	52.9	7.9	20.9	3063	21538
Growmark FS	5667GT3	19.1	66.7	42.0	48.2	7.0	28.3	3081	20660
Channel Bio	209-85VT3P	19.3	67.0	43.7	46.9	8.1	26.1	3045	20623
LICA	1084L HX	19.8	68.3	49.5	54.2	7.6	19.0	2964	20563
Mycogen	TMF2Q717	18.5	67.7	48.9	50.9	7.5	20.9	2973	19298
King's Agriseeds	Masters Choice 535	18.1	69.1	42.9	52.1	7.4	25.1	3022	19228
Channel Bio	207-13VT3P	17.9	66.4	45.8	49.8	7.6	24.4	3059	19139
Doebler's	601XY	17.2	70.2	45.6	55.8	7.6	23.5	3164	19103
Syngenta	Garst 85E98- 3000GT	17.7	68.8	42.1	51.2	7.6	26.4	3066	19050
Mycogen	F2F626	17.8	68.2	46.6	58.5	7.7	19.9	3030	19016
TA Seeds	TA 587-22DP	18.3	67.1	43.3	44.8	7.3	26.8	2949	18994
Dyna-Gro	D50VN10	19.0	69.4	43.3	47.9	7.4	24.0	2837	18947
Growmark FS	5815GT3	17.6	69.8	43.9	51.0	7.2	25.7	3067	18873
Fielder's Choice	NG 6710	17.4	68.1	42.8	48.3	7.3	27.4	3073	18833
LICA	HHG 37B11	17.7	68.9	47.8	54.0	7.7	20.6	3007	18754
Fielder's Choice	NG 6705	17.8	67.2	45.2	50.6	7.6	22.7	2933	18316
TA Seeds	TA 615-16ND	17.3	72.3	42.0	54.9	7.8	23.4	2956	17854
Dairyland Seed	HiDF 3108-Q	17.8	70.3	47.1	49.6	7.6	18.6	2674	16588
Mycogen	F2F665	16.0	68.1	48.1	56.8	7.5	17.7	2870	16046
<b>Average</b>		<b>18.3</b>	<b>68.4</b>	<b>45.2</b>	<b>51.1</b>	<b>7.5</b>	<b>23.6</b>	<b>3000</b>	<b>19320</b>

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>111-116-d RM</b>									
Channel Bio	214-14VT3P	21.0	66.8	42.5	52.2	7.9	26.7	3168	23300
Dekalb	DKC62-54 VT3	20.1	66.2	42.2	49.7	8.1	28.2	3203	22549
Dekalb	DKC63-84 VT3	20.3	67.8	43.1	50.2	7.7	26.9	3137	22332
Growmark FS	6611GT3	19.2	67.9	45.4	52.9	7.2	24.6	3115	20947
TA Seeds	TA 720-20	19.6	68.0	45.8	52.8	7.4	22.6	2997	20613
Pioneer	P1376XR	18.9	69.6	42.3	61.3	8.0	22.1	3068	20359
Pioneer	P1498HR	19.0	68.3	45.5	56.9	7.8	21.1	3026	20165
TA Seeds	TA 657-13VP	18.4	67.9	44.0	51.5	7.7	25.4	3089	20061
Dyna-Gro	V5294HTXRNS	19.1	70.6	41.5	55.8	7.8	22.8	2915	19521
Fielder's Choice	NG 6815	17.1	69.4	44.3	54.4	7.7	24.6	3149	18909
TA Seeds	TA 780-13V	17.8	70.6	44.3	55.9	7.5	20.1	2834	17731
<b>Average</b>		<b>19.1</b>	<b>68.4</b>	<b>43.7</b>	<b>54.0</b>	<b>7.7</b>	<b>24.1</b>	<b>3064</b>	<b>20590</b>
<b>LSD 0.10</b>		<b>2.06</b>	<b>1.68</b>	<b>1.81</b>	<b>4.84</b>	<b>0.39</b>	<b>3.16</b>	<b>232</b>	<b>2592</b>
<b>Overall Mean</b>		<b>18.0</b>	<b>66.5</b>	<b>43.7</b>	<b>49.6</b>	<b>7.6</b>	<b>26.1</b>	<b>3054</b>	<b>19216</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 2011.

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>89-d RM</b>									
TA Seeds	TA 290-31	22.1	63.2	39.9	42.6	8.0	33.6	3184	24648
<b>91 to 95-d RM</b>									
Mycogen	TMF2L418	25.4	66.0	39.6	50.3	8.5	32.6	3355	29761
TA Seeds	TA 370-11	22.1	66.1	37.9	44.3	8.4	36.2	3270	25343
TA Seeds	TA 451-20	22.0	65.3	39.3	46.5	8.3	34.2	3271	25253
<b>Average</b>		<b>23.2</b>	<b>65.8</b>	<b>38.9</b>	<b>47.1</b>	<b>8.4</b>	<b>34.3</b>	<b>3298</b>	<b>26786</b>
<b>96 to 100-d RM</b>									
Hyland	Hyland HL SR48	27.0	66.9	42.7	48.1	8.1	29.4	3211	30266
Doebler's	RPM 472XRR	26.2	66.8	38.3	45.7	8.1	34.4	3286	30141
Mycogen	TMF2L533	27.5	68.6	45.0	46.2	7.7	29.2	3072	29440
Doebler's	478SL	25.4	67.4	43.1	48.8	8.1	29.5	3227	28764
TA Seeds	TA 477-31	25.0	67.6	40.2	45.0	8.5	33.4	3168	27733
Channel Bio	200-91VT3P	24.2	67.6	40.5	46.5	7.9	34.5	3243	27424
Dekalb	DKC49-94 GENSS	24.2	66.8	39.9	46.3	8.6	34.1	3219	27269
TA Seeds	TA 481-20ND	23.2	68.5	40.0	49.0	9.3	31.5	3246	26341
Mycogen	TMF2Q493	23.7	67.5	40.9	45.8	7.8	31.9	3173	26307
Dekalb	DKC48-37 VT3	23.9	66.9	39.2	41.9	8.0	32.8	3115	26064
Dyna-Gro	D40SS09	23.6	68.4	42.1	45.9	8.0	31.8	3148	25964
Hyland	Hyland HL SVT50	23.2	70.8	43.0	49.6	7.9	30.4	3200	25960
Hyland	Hyland HL 4424	23.2	67.1	42.5	48.3	7.9	30.1	3183	25912
Dyna-Gro	D39QN29	22.3	69.6	41.4	49.2	9.2	32.5	3228	25251
Dekalb	DKC46-61 GENSS	23.0	68.3	42.2	45.9	7.8	31.4	3119	25168
Doebler's	459GRQ	22.3	67.3	40.4	43.6	8.2	32.5	3160	24729
Hyland	Hyland HL 4420	20.2	67.5	42.5	51.8	7.9	29.2	3281	23140
<b>Average</b>		<b>24.0</b>	<b>67.8</b>	<b>41.4</b>	<b>46.9</b>	<b>8.2</b>	<b>31.7</b>	<b>3193</b>	<b>26816</b>
<b>101-105-d RM</b>									
Syngenta	Garst 86T82- 3000GT	24.9	67.1	39.8	49.4	7.9	33.4	3335	28936
TA Seeds	TA 557-00F	24.9	67.3	44.7	51.5	8.5	28.5	3260	28341
Dairyland Seed	HiDF 3702-9	24.3	70.2	40.6	49.3	7.8	33.1	3321	28257
Syngenta	NK N53W- 3000GT	24.7	66.7	39.3	47.3	7.8	32.2	3250	28059
LICA	HHG 4611	26.9	69.9	47.2	46.3	8.2	25.9	2968	27894
Doebler's	554GRQ	23.3	66.7	38.1	48.9	7.7	34.4	3363	27454
TA Seeds	TA 545-20	23.4	68.4	39.4	48.5	7.8	32.8	3331	27101
Dyna-Gro	D43VN22	22.9	69.8	39.6	49.3	8.5	33.8	3298	26432
Dairyland Seed	HiDF 3301	22.9	68.3	39.9	48.5	8.1	32.9	3293	26394
King's Agriseeds	Masters Choice 5250	22.4	70.0	40.6	51.8	7.9	33.8	3349	26159
Pioneer	P0448XR	23.5	68.1	40.7	45.5	8.1	31.6	3183	26042
Wolf River Valley	WRV 2702L	22.5	67.9	43.3	51.3	8.3	31.7	3274	25707
Dekalb	DKC52-59 VT3	22.5	68.8	40.9	48.2	8.1	32.7	3232	25440
Hyland	Hyland 8526	22.5	69.0	43.3	49.9	8.1	29.0	3198	25103
Hyland	Hyland HL SR59	25.0	71.2	46.4	48.6	7.9	21.6	2859	25090
Dekalb	DKC53-45 GENSS	21.9	69.1	41.8	49.4	8.0	32.3	3240	24855
Fielder's Choice	NG 6646	22.7	69.6	42.1	45.3	8.0	30.3	3126	24761

TA Seeds	TA 551-16ND	22.1	71.3	39.8	47.8	8.7	29.7	3174	24484
Doebler's	558BMB	16.6	68.0	38.4	59.7	8.5	31.6	3549	20573
<b>Average</b>		<b>23.1</b>	<b>68.8</b>	<b>41.4</b>	<b>49.3</b>	<b>8.1</b>	<b>31.1</b>	<b>3242</b>	<b>26162</b>

Groveland Station, NY, 2011									
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	26.1	68.6	44.6	51.3	8.5	28.2	3239	29551
LICA	1084L HX	26.5	71.4	47.9	52.1	8.2	23.5	3115	28893
Wolf River Valley	WRV 2114L	26.0	70.7	47.3	51.9	8.2	24.8	3146	28597
Growmark FS	5667GT3	24.5	68.2	39.9	49.2	7.9	33.4	3336	28584
Syngenta	Garst 85E98-3000GT	23.5	68.9	39.6	52.8	8.1	31.9	3412	28044
Pioneer	P0210HR	24.4	69.6	41.6	49.2	7.7	31.7	3270	27802
Channel Bio	209-85VT3P	24.6	69.7	42.8	46.7	8.2	29.6	3157	27162
Dyna-Gro	D50VN10	24.3	71.1	41.4	47.2	8.8	29.3	3175	26986
King's Agriseeds	Masters Choice 535	23.4	70.8	42.3	50.8	8.4	29.2	3215	26379
LICA	HHG 37B11	24.2	70.3	46.3	49.0	8.5	26.4	3080	26086
Doebler's	601XY	22.2	70.9	41.4	53.3	8.1	31.2	3360	26075
Growmark FS	5815GT3	23.0	69.7	42.3	48.9	8.1	30.2	3218	25923
TA Seeds	TA 615-16ND	24.6	71.6	41.5	50.4	8.5	25.2	2996	25875
Fielder's Choice	NG 6710	22.8	69.9	41.2	47.0	8.2	30.4	3206	25541
TA Seeds	TA 587-22DP	22.5	69.9	42.1	48.6	8.2	30.4	3231	25457
Channel Bio	207-13VT3P	22.7	70.0	45.0	50.8	8.1	26.1	3167	25132
Fielder's Choice	NG 6705	22.9	69.3	42.6	46.0	8.3	30.7	3125	25008
Mycogen	F2F626	22.2	71.7	45.6	62.2	8.1	21.1	3186	24706
Dairyland Seed	HiDF 3108-Q	24.2	72.1	46.2	50.7	8.1	21.4	2918	24706
Mycogen	TMF2Q717	21.7	69.2	46.2	48.8	8.1	26.7	3107	23486
Mycogen	F2F665	19.7	71.7	48.6	57.7	8.0	15.9	2828	19559
<b>Average</b>		<b>23.6</b>	<b>70.2</b>	<b>43.6</b>	<b>50.7</b>	<b>8.2</b>	<b>27.5</b>	<b>3166</b>	<b>26169</b>
<b>111 to 116-d RM</b>									
Dyna-Gro	V5294HTXRNS	27.2	70.5	39.7	47.0	8.5	28.7	3080	29376
Dekalb	DKC63-84 VT3	25.0	69.7	42.2	46.7	8.1	30.7	3178	27834
Pioneer	P1498HR	24.7	69.9	43.4	50.2	7.9	27.3	3192	27584
Channel Bio	214-14VT3P	25.2	70.0	43.1	45.7	8.5	28.7	3120	27533
Dekalb	DKC62-54 VT3	24.2	67.7	41.9	47.9	8.3	31.1	3227	27353
Growmark FS	6611GT3	25.0	69.3	45.2	47.4	7.8	26.5	3078	26932
TA Seeds	TA 657-13VP	23.1	68.9	41.6	47.7	8.2	31.5	3226	26020
TA Seeds	TA 780-13V	24.4	71.0	43.2	46.8	8.1	26.3	2988	25595
TA Seeds	TA 720-20	23.9	69.6	45.7	47.6	7.6	25.7	3035	25344
Fielder's Choice	NG 6815	22.3	69.8	41.3	49.2	8.2	29.6	3242	25217
Pioneer	P1376XR	22.3	72.6	41.6	53.4	8.6	26.2	3157	24602
<b>Average</b>		<b>24.3</b>	<b>69.9</b>	<b>42.6</b>	<b>48.1</b>	<b>8.2</b>	<b>28.4</b>	<b>3138</b>	<b>26672</b>
<b>LSD 0.10</b>		<b>2.49</b>	<b>1.11</b>	<b>1.65</b>	<b>3.74</b>	<b>0.37</b>	<b>2.22</b>	<b>128</b>	<b>2841</b>
<b>Overall Mean</b>		<b>23.7</b>	<b>69.0</b>	<b>42.1</b>	<b>48.8</b>	<b>8.2</b>	<b>29.9</b>	<b>3194</b>	<b>26401</b>

Table 4. Silage yield (adjusted to 65% moisture), moisture at harvest, quality characteristics, milk/ton, and calculated milk yields of corn hybrids at Cornell's T&R Center in Cortland Co. in 2011.

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	24.1	68.7	46.0	54.0	9.1	20.6	2917	24576
Wolf River Valley	WRV 2087L	21.7	69.8	47.6	57.4	9.1	19.1	2977	22616
Dekalb	DKC40-22 GENSS	20.4	67.1	40.9	45.6	8.4	29.2	3007	21470
Doebler's	329GRQ	20.3	67.5	41.0	49.5	8.9	25.5	2907	20752
TA Seeds	TA 290-31	19.7	66.4	40.8	49.4	8.6	26.4	2938	20441
Doebler's	RPM 269HRQ	19.5	66.3	41.9	52.9	8.8	24.6	2963	20129
Dairyland Seed Co.	HiDF 3290-9	20.1	67.4	41.8	48.4	9.0	23.9	2808	19944
King's Agriseeds	Masters Choice 480	18.9	66.4	40.9	50.5	9.0	26.4	3000	19808
Dekalb	DKC38-89 VT3	19.1	68.2	42.3	50.7	8.8	22.8	2787	18887
Pioneer	P8906HR	17.9	66.1	47.1	53.8	8.8	20.1	2904	18162
LICA	HHG 20C11	16.4	69.4	46.5	59.7	9.2	13.7	2584	14832
<b>Average</b>		<b>19.8</b>	<b>67.6</b>	<b>43.3</b>	<b>52.0</b>	<b>8.9</b>	<b>22.9</b>	<b>2890</b>	<b>20147</b>
<b>91 to 95-d RM</b>									
Growmark FS	4217XRR	22.8	67.5	39.6	49.8	9.0	27.8	3030	24178
LICA	946L RR	21.9	68.0	43.0	57.9	9.1	22.8	3038	23310
Pioneer	P9917AM1	21.7	67.2	39.8	50.3	8.8	26.8	2967	22367
Pioneer	38H08	19.8	66.2	45.9	52.0	8.9	22.2	2962	20470
TA Seeds	TA 451-20	20.3	68.2	41.4	51.4	9.8	23.4	2890	20396
Dekalb	DKC42-72 VT3	19.5	67.3	42.4	51.8	9.0	24.6	2975	20382
TA Seeds	TA 370-11	19.2	67.1	39.8	47.2	9.0	27.9	2983	20061
Mycogen	TMF2L418	20.6	69.3	46.2	54.9	9.6	17.8	2768	19955
Mycogen	F2F387	18.1	69.1	44.1	63.9	8.9	21.5	3138	19774
Fielder's Choice	NG 6455	18.9	69.3	41.7	48.6	8.6	25.0	2855	18891
Syngenta	NK N29T-3000GT	20.1	68.4	42.3	45.1	8.7	23.0	2646	18636
Fielder's Choice	NG 6376	18.9	68.6	42.0	50.3	8.7	23.1	2784	18191
<b>Average</b>		<b>20.2</b>	<b>68.0</b>	<b>42.3</b>	<b>51.9</b>	<b>9.0</b>	<b>23.8</b>	<b>2920</b>	<b>20551</b>
<b>96 to 100-d RM</b>									
Mycogen	TMF2L533	24.9	71.0	49.5	55.4	8.5	16.1	2742	23861
Dekalb	DKC49-94 GENSS	21.4	68.2	39.5	48.8	8.9	29.5	3120	23297
Growmark FS	4811GT3	21.4	67.3	43.0	49.3	8.3	26.9	3059	22908
Mycogen	F2F488	20.0	69.1	39.3	61.3	9.1	26.6	3223	22464
Doebler's	478SL	22.5	70.0	45.5	55.6	8.8	19.1	2803	22068
Doebler's	RPM 472XRR	22.3	69.8	41.4	50.5	8.1	24.2	2800	21928
TA Seeds	TA 477-31	21.4	69.2	43.3	52.0	8.9	23.4	2921	21827
Hyland	Hyland HL 4420	21.4	67.9	42.6	50.8	8.6	24.3	2909	21786
Dekalb	DKC46-61 GENSS	21.7	69.2	41.5	46.0	8.4	25.8	2826	21485
LICA	99S7	21.5	69.8	47.4	55.3	8.9	18.6	2855	21331
Hyland	Hyland HL SR48	22.8	69.7	46.4	55.0	8.8	17.0	2667	21305
Hyland	Hyland HL SVT50	22.6	72.1	45.9	57.4	9.2	16.3	2685	21244
Hyland	Hyland HL 4424	20.8	68.0	43.7	48.0	8.5	24.7	2906	21134
Fielder's Choice	NG 6550	21.0	69.4	41.2	49.0	8.4	25.1	2840	20823
Syngenta	NK N34N-3111	20.3	68.7	41.1	49.7	8.5	25.8	2915	20770
Dekalb	DKC48-37 VT3	20.9	68.4	43.1	47.1	8.1	25.0	2845	20762
Mycogen	TMF2Q493	21.5	70.1	42.1	51.2	9.1	21.3	2700	20408
Dairyland Seed Co.	HiDF 3297-9	19.7	68.4	43.7	48.3	8.4	24.5	2882	19897

LICA	HHG 29B11	22.2	69.8	47.2	55.7	8.7	14.4	2530	19433
Doebler's	459GRQ	19.3	68.8	43.8	50.5	8.6	23.0	2858	19278
TA Seeds	TA 481-20ND	19.7	72.7	43.6	58.0	10.5	16.7	2715	18745
<b>Average</b>		<b>21.4</b>	<b>69.4</b>	<b>43.6</b>	<b>52.1</b>	<b>8.7</b>	<b>22.3</b>	<b>2848</b>	<b>21274</b>

Harford, NY, 2011									
<b>Brand/ Company</b>	<b>Hybrid</b>	<b>Yield tons @65</b>	<b>Moisture %DM</b>	<b>NDF %DM</b>	<b>30h- NDFD %</b>	<b>CP %DM</b>	<b>Starch %DM</b>	<b>Milk/ton lbs/ton</b>	<b>Milk Yield lbs/acre</b>
<b>101-105 RM</b>									
TA Seeds	TA 545-20	25.1	69.6	40.3	54.6	8.2	24.4	2870	25318
Pioneer	P0125HR	25.3	70.3	40.2	50.2	8.2	25.0	2801	24894
Dekalb	DKC52-59 VT3	21.6	68.4	40.7	48.5	8.0	29.3	3093	23407
Dekalb	DKC53-45 GENSS	21.7	69.2	42.5	53.8	8.1	25.1	3004	22791
Doebler's	554GRQ	21.9	69.4	40.7	52.3	8.2	26.0	2957	22785
Syngenta	Garst 86T82- 3000GT	22.1	69.6	41.9	53.2	8.3	24.2	2903	22449
King's Agriseeds	Masters Choice 5250	21.9	71.2	42.8	54.9	8.5	22.1	2843	21959
Dairyland Seed Co.	HiDF 3702-9	22.2	71.9	44.4	54.5	8.5	20.0	2758	21379
Hyland	Hyland 8526	21.6	69.7	42.8	53.1	8.9	21.9	2820	21289
Fielder's Choice	NG 6646	21.6	70.9	45.0	50.7	8.7	20.6	2738	20802
TA Seeds	TA 557-00F	22.0	70.5	47.6	55.2	9.1	16.0	2678	20688
TA Seeds	TA 551-16ND	20.6	72.3	40.0	58.4	9.3	19.6	2675	19401
Hyland	Hyland HL SR59	21.8	72.1	46.4	55.6	8.3	14.7	2475	18847
Dairyland Seed Co.	HiDF 3301	17.8	72.1	43.0	49.9	10.1	19.6	2656	16550
Doebler's	558BMB	14.8	69.3	39.1	62.2	8.7	24.6	3054	15726
<b>Average</b>		<b>21.5</b>	<b>70.4</b>	<b>42.5</b>	<b>53.8</b>	<b>8.6</b>	<b>22.2</b>	<b>2821</b>	<b>21219</b>
<b>106-d RM</b>									
Growmark FS	5667GT3	24.0	70.1	42.4	52.0	8.3	23.1	2815	23701
<b>LSD 0.10</b>		<b>2.34</b>	<b>1.19</b>	<b>1.82</b>	<b>3.62</b>	<b>0.51</b>	<b>3.42</b>	<b>187</b>	<b>2775</b>
<b>Overall Mean</b>		<b>20.9</b>	<b>69</b>	<b>43</b>	<b>52.5</b>	<b>8.8</b>	<b>22.7</b>	<b>2862</b>	<b>20951</b>