

## New York & Vermont Corn Silage Hybrid Evaluation Program 2019

Data Tables

November 20, 2019

Joseph Lawrence, Allison Kerwin, Thomas Overton, Margaret Smith, Heather Darby

Cornell University, PRO-DAIRY  
Cornell University, Department of Animal Science  
Cornell University, Section of Plant Breeding and Genetics  
University of Vermont

### Acknowledgements

Jon Greenwood, Hugh Dudley, Sherrie Norman, Keith Payne, Dan Fisher, Sara Ziegler  
Mike Davis, Adam Seyward, Delvin Meseck, Roger Rainville

NYS College of Agriculture and Life Sciences  
Cornell University  
Ithaca, NY 14853



**This document is a preliminary report of the 2019 NYS & VT Corn Silage Hybrid Evaluation Program. This will be followed by a full report of the 2019 trials including *predicted milk yields* generated by the Cornell Net Carbohydrate and Protein System (CNCPS) model.**

## **Background**

In 2019, companies were invited to enter hybrids into the New York & Vermont Corn Silage Hybrid Evaluation Program.

Seventy five corn silage hybrids were tested, each hybrid was planted at three locations. Each hybrid was planted in 3 replicates per location.

80 - 95 day Relative Maturity Hybrids (26 Hybrids)

Albion, NY (Orleans Co.)

Willsboro, NY (Essex Co.)

Alburgh, VT (Grand Isles Co.)

96-110 day Relative Maturity Hybrids (49 Hybrids)

Aurora, NY (Cayuga Co.)

Madrid, NY (St. Lawrence Co.).

Alburgh, VT (Grand Isles Co.)

All hybrids were planted at 34,000 plants/acre. Each plot consisted of two 20' rows spaced 30 inches apart.

Plots were 4 rows wide, at harvest the inner 2 rows were harvested. Target whole plant dry matter (DM) at harvest was 35% DM. Forage samples were sent to Cumberland Valley Analytical Laboratory for

## **2019 Growing Season**

As was experienced by growers across the northeast, the season was marked by wet weather early that challenged planting and resulted in later than target planting dates at most locations.

The weather challenges continued in respect to both variable precipitation and below average growing degree day (GDD) accumulation that further exacerbated the impacts of planting delays on crop maturity and harvest timing.

Despite the challenges, locations were generally able to be harvested in the desired whole plant dry matter range, with the notable exception of Madrid where whole plant dry matter (DM) was lower than desired across the plot. While this is not ideal, it is representative of what many growers faced this season. **The data from Madrid should not be compared to other locations (that were harvested closer to target whole plant DM); however, since the entire plot was below target DM the plot data is informative regarding quality and feeding considerations of immature corn silage.**

Table 1a: NY & VT Corn Silage Trails, 80-95 RM, Weather Data

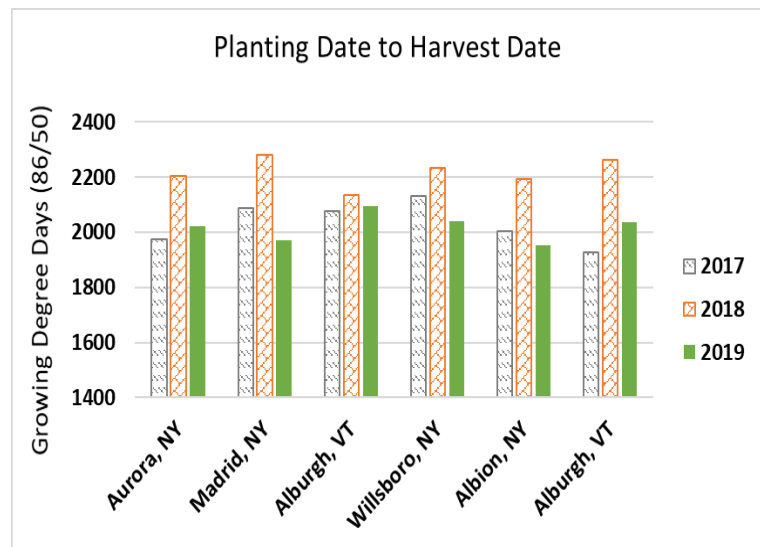
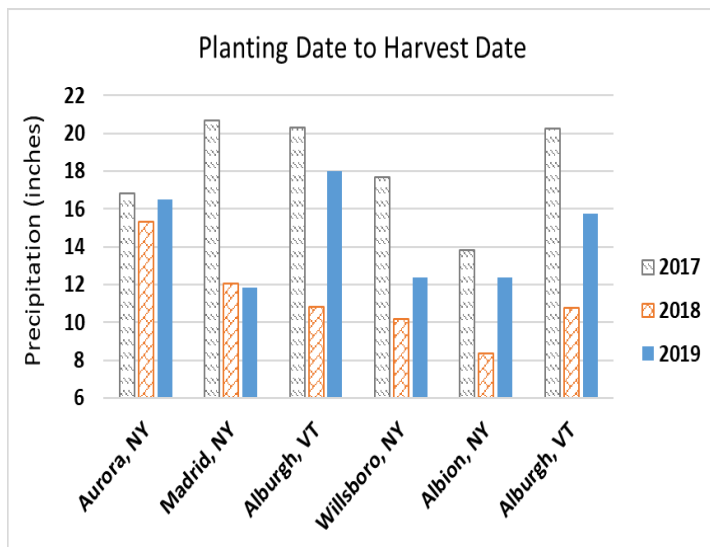
	Rainfall, inches						Growing Degree Days (GDD), 86/50					
	Alburgh, VT		Albion, NY		Willsboro, NY		Alburgh, VT		Albion, NY		Willsboro, NY	
	2019	Avg.*	2019	Avg.*	2019	Avg.*	2019	Avg.*	2019	Avg.*	2019	Avg.*
May	<b>5.10</b>	4.02	<b>4.19</b>	2.76	<b>5.53</b>	3.60	<b>209</b>	308	<b>229</b>	309	<b>213</b>	308
June	<b>3.52</b>	4.80	<b>3.35</b>	3.38	<b>5.16</b>	4.68	<b>424</b>	468	<b>443</b>	488	<b>455</b>	479
July	<b>2.31</b>	4.38	<b>2.89</b>	3.86	<b>2.33</b>	3.73	<b>646</b>	623	<b>685</b>	646	<b>683</b>	647
August	<b>4.23</b>	4.35	<b>3.88</b>	3.46	<b>2.30</b>	3.40	<b>531</b>	569	<b>584</b>	603	<b>573</b>	598
September	<b>3.98</b>	4.02	<b>3.60</b>	3.17	<b>2.97</b>	3.03	<b>330</b>	384	<b>406</b>	417	<b>358</b>	408
May-August	<b>15.16</b>	17.55	<b>14.31</b>	13.46	<b>15.32</b>	15.42	<b>1809</b>	1968	<b>1941</b>	2045	<b>1923</b>	2031
May-September	<b>19.14</b>	21.57	<b>17.91</b>	16.63	<b>18.29</b>	18.45	<b>2139</b>	2352	<b>2346</b>	2463	<b>2280</b>	2438

\*Avg. - Represents averages of years: 2005-2019

Table 1b: NY & VT Corn Silage Trails, 96-110 RM, Weather Data

	Rainfall, inches						Growing Degree Days (GDD), 86/50					
	Alburgh, VT		Aurora, NY		Madrid, NY		Alburgh, VT		Aurora, NY		Madrid, NY	
	2019	Avg.*	2019	Avg.*	2019	Avg.*	2019	Avg.*	2019	Avg.*	2019	Avg.*
May	<b>5.10</b>	4.02	<b>4.43</b>	3.10	<b>4.43</b>	3.39	<b>209</b>	308	<b>241</b>	330	<b>195</b>	298
June	<b>3.52</b>	4.80	<b>4.15</b>	3.98	<b>4.04</b>	4.44	<b>424</b>	468	<b>434</b>	491	<b>419</b>	467
July	<b>2.31</b>	4.38	<b>5.44</b>	3.74	<b>2.07</b>	4.53	<b>646</b>	623	<b>654</b>	646	<b>639</b>	611
August	<b>4.23</b>	4.35	<b>3.89</b>	3.74	<b>1.83</b>	4.00	<b>531</b>	569	<b>537</b>	597	<b>521</b>	565
September	<b>3.98</b>	4.02	<b>2.18</b>	3.51	<b>2.81</b>	3.78	<b>330</b>	384	<b>379</b>	413	<b>332</b>	381
May-August	<b>15.16</b>	17.55	<b>17.91</b>	14.55	<b>12.37</b>	16.36	<b>1809</b>	1968	<b>1865</b>	2064	<b>1773</b>	1941
May-September	<b>19.14</b>	21.57	<b>20.09</b>	18.06	<b>15.18</b>	20.14	<b>2139</b>	2352	<b>2244</b>	2477	<b>2105</b>	2322

\*Avg. - Represents averages of years: 2005-2019



NY & VT Corn Silage Trials, Field Information, 2019 Growing Season

	80 - 95 Day Relative Maturity			96-110 Day Relative Maturity		
	Alburgh, VT	Albion, NY	Willsboro, NY	Alburgh, VT	Aurora, NY	Madrid, NY
Planting Date	13-May	31-May	4-Jun	13-May	3-Jun	22-May
Harvest Date	25-Sep	18-Sep	30-Sep	2-Oct	4-Oct	27-Sep
Previous Crop	Small Grain	Soybean	Sod	Small Grain	Soybean	Sod
Starter N	5	32	15	5	28	32
Manure N	-	-	-	-	-	15
Sidedress N	140	132	90	140	110	-
Total Fertilizer N	145	164	105	145	138	47
Soil Type	Amenia	Hilton	Cosad	Benson	Honeoye	Hogansburg

Whole Plot Mean For Key Corn Silage Performance Indicators

Relative Maturity Group	Growing Season	Location	Yield, 35% DM tons/acre	Dry Matter %	Starch % DM	Crude Protein % DM	Lignin % DM	aNDFom % DM	30 hr NDFDom % NDF	240 hr uNDFom % NDF	240 hr uNDFom % DM
80-95 day RM	2019	Albion, NY	26.0	31.9	35.1	7.4	2.7	36.5	59.1	30.8	11.3
		Willsboro, NY	19.2	32.6	36.9	6.9	2.5	35.8	60.5	29.5	10.6
		Alburgh, VT	23.4	33.7	36.5	7.3	3.0	37.8	61.6	29.6	11.2
	2018	Albion, NY	19.2	36.2	39.2	8.3	2.4	34.2	56.1	29.0	10.0
		Willsboro, NY	18.5	35.0	34.9	8.2	2.5	35.7	62.0	27.0	9.7
		Alburgh, VT	18.3	33.3	31.0	7.8	3.1	39.0	56.2	30.0	11.8
	2017	Albion, NY	25.2	30.8	32.3	8.3	2.9	37.2	59.1	27.0	10.1
		Willsboro, NY	19.2	31.3	38.1	7.7	3.1	39.5	56.3	30.5	12.1
		Alburgh, VT	27.5	31.8	34.4	7.5	3.3	38.9	53.2	34.3	13.4
96-110 day RM	2019	Aurora, NY	27.1	34.7	38.3	6.5	2.9	36.9	55.5	34.7	12.9
		Madrid, NY	27.4	28.6	30.7	7.5	2.7	38.0	58.4	31.7	12.1
		Alburgh, VT	24.3	35.4	39.3	7.6	2.4	35.5	61.6	25.8	9.2
	2018	Aurora, NY	21.7	38.2	38.8	7.3	2.6	35.3	59.9	29.4	10.4
		Madrid, NY	28.6	32.9	35.4	7.7	2.5	35.9	61.2	27.1	9.8
		Alburgh, VT	23.3	34.9	34.2	7.2	3.1	38.3	55.2	31.2	12.0
	2017	Aurora, NY	26.0	31.9	31.2	6.1	3.4	42.6	54.5	33.5	14.4
		Madrid, NY	31.9	35.2	34.8	7.4	3.7	41.3	50.6	38.1	15.9
		Alburgh, VT	28.5	32.7	35.3	7.2	3.3	39.8	52.7	35.7	14.3
2016	Aurora, NY	17.7	32.8	33.9	9.2	2.8	35.7	66.1	23.1	8.3	
	Madrid, NY	28.4	33.4	36.0	8.4	3.1	36.4	57.4	31.1	11.4	

Company/Brand	Hybrid	Trait Code †	Relative Maturity	Harvest	Dry	Yield,	Starch	Crude	Lignin	Ash	Total	aNDFom	NDF	12 hr	Wet	Wet Chem	30 hr	120 hr	240 hr	240 hr	RFC - Fill	CNCPS v. 7.0	CNCPS v. 7.0	
				Population	Matter	35% DM	% DM	Protein	% DM	% DM	% DM	% DM	Fatty Acids	% DM	% DM	% DM	% DM	Chem aNDFom	30 hr NDFD	NDFD	NDFD	NDFD	Ratio <sup>1</sup>	Predicted Allowable Milk Yield lbs/day
Schlessmanns	908	22	91	32500	30.0	28.5	36.4	7.7	2.6	2.6	2.4	34.2	34.8	30.3	33.1	54.7	57.5	64.9	67.7	11.1	3.7			
Syngenta NK	NK9175-3110	16	91	33500	31.1	27.9	35.7	7.0	2.8	2.9	2.5	35.1	35.7	28.0	33.8	55.0	57.8	64.7	67.5	11.5	3.7			
Albert Lea Viking	O.71-90GS	1	90	29500	31.4	24.4	34.6	7.3	2.7	2.9	2.4	35.6	36.2	30.7			59.6	66.1	68.9	11.1	3.8			
Albert Lea Viking	O.58-85P	1	85	30667	31.6	26.5	36.2	7.5	2.6	3.0	2.5	34.8	35.4	32.1			58.7	67.3	70.2	10.4	3.8			
Seedway	SW3110GENSS	36	90	34667	31.6	25.0	33.3	7.1	2.9	2.8	2.3	38.4	39.0	30.5			58.8	66.0	68.7	12.1	3.4			
Local Seed Company	LC8667SSXRIB	36	86	28000	31.9	24.8	36.2	7.5	2.5	2.6	2.4	35.4	35.9	32.7			59.9	67.4	70.3	10.6	4.0			
Growthmark FS	FS4095X RIB	36	90	32500	32.0	25.4	34.2	7.1	2.9	2.9	2.2	37.5	38.0	30.1	36.3	54.9	57.9	65.1	68.0	12.0	3.5			
Local Seed Company	LC8597 VT2PRIB	41	85	31333	32.5	23.9	35.9	7.2	2.8	2.7	2.4	36.9	37.5	30.6			58.6	65.8	68.6	11.7	3.7			
Hubner	H6038RCS	36	89	33167	32.6	27.9	36.3	7.5	2.7	2.9	2.4	36.2	36.7	31.9			59.8	67.3	70.2	10.8	3.9			
Hubner	HH6053RCS	36	87	30667	33.1	23.6	35.6	7.8	2.8	3.0	2.5	35.9	36.4	30.8			58.8	65.0	67.8	11.6	3.7			
Dekalb	DKC36-30RIB	42	86	32667	33.6	24.0	37.6	7.0	2.6	2.6	2.5	35.2	35.8	32.2			60.5	68.0	70.8	10.3	4.1			
Masters Choice	MCT3891	10	88	27500	35.1	23.3	36.3	7.7	2.7	2.8	2.6	36.4	36.9	31.7			60.3	66.7	69.6	11.1	4.0			
<b>85-91 day RM Mean</b>				<b>31389</b>	<b>32.2</b>	<b>25.4</b>	<b>35.7</b>	<b>7.4</b>	<b>2.7</b>	<b>2.8</b>	<b>2.4</b>	<b>36.0</b>	<b>36.5</b>	<b>31.0</b>	<b>34.4</b>	<b>54.9</b>	<b>59.0</b>	<b>66.2</b>	<b>69.0</b>	<b>11.2</b>	<b>3.8</b>			
Local Seed Company	ZS9598 5222EZ	16	95	34667	30.8	27.5	34.5	7.4	2.9	2.8	2.5	36.3	36.9	28.1			55.7	62.3	65.0	12.7	3.3			
Albert Lea Viking	O.82-95P	1	95	31333	30.8	24.0	31.8	7.9	2.7	3.2	2.3	37.0	37.6	32.1	36.4	60.8	59.9	66.7	69.6	11.3	3.5			
Channel	192-98STXRIB	36	92	33000	31.0	27.0	33.1	7.8	2.7	3.0	2.5	37.0	37.5	31.6			58.6	65.1	67.8	11.9	3.5			
Masters Choice	MCT4572	14	95	35333	31.0	26.0	35.8	7.4	2.7	2.7	2.4	35.7	36.2	30.2			58.6	65.8	68.5	11.2	3.7			
Albert Lea Viking	42-92P	1	92	32833	31.1	28.4	33.0	7.2	2.8	2.8	2.3	38.5	39.1	31.9			60.1	66.7	69.7	11.7	3.6			
Local Seed Company	LC9278SSXRIB	36	92	33333	31.2	27.1	32.5	7.0	2.9	2.6	2.3	39.4	40.0	31.3			59.4	66.4	69.2	12.2	3.4			
Seed Consultants	SCS 958AGT	14	95	31167	31.3	26.0	33.3	7.1	2.7	2.9	2.4	37.5	38.1	31.7			59.1	67.0	69.8	11.4	3.5			
Dekalb	DKC44-80RIB	42	94	34500	31.4	30.5	35.8	6.9	2.6	2.7	2.2	36.8	37.4	32.5			59.9	68.0	70.9	10.8	3.8			
Growthmark FS	FS42R88VT2P	42	92	32500	31.6	26.0	35.2	7.4	2.7	2.8	2.6	37.3	37.8	32.8	35.6	57.7	59.5	67.4	70.4	11.1	3.7			
Seedway	SW3600GENSS	36	92	32000	31.8	26.2	35.6	7.3	2.7	2.8	2.2	36.1	36.7	31.4			58.6	66.9	69.7	11.0	3.7			
Dekalb	DKC45-07RIB	42	95	33000	31.9	24.2	35.4	7.6	2.6	3.1	2.3	36.1	36.8	31.3			59.8	66.4	69.2	11.2	3.8			
Seedway	SW3768GENSS	36	95	32167	32.0	25.3	33.9	7.4	2.6	2.9	2.2	37.2	37.8	33.0			61.1	69.0	72.0	10.4	3.8			
Dekalb	DKC42-04RIB	42	92	33333	32.8	26.4	36.9	7.0	2.7	2.6	2.3	36.8	37.3	31.3			58.9	66.6	69.4	11.3	3.8			
Pioneer	P9330AM	3	93	32333	33.7	26.5	37.2	7.3	2.7	2.8	2.3	35.9	36.4	30.4			58.6	66.4	69.2	11.1	3.8			
<b>92-95 day RM Mean</b>				<b>32964</b>	<b>31.6</b>	<b>26.5</b>	<b>34.6</b>	<b>7.3</b>	<b>2.7</b>	<b>2.8</b>	<b>2.3</b>	<b>37.0</b>	<b>37.5</b>	<b>31.4</b>	<b>36.0</b>	<b>59.2</b>	<b>59.1</b>	<b>66.5</b>	<b>69.3</b>	<b>11.4</b>	<b>3.6</b>			
<b>LSD (0.10)</b>				<b>1993</b>	<b>1.3</b>	<b>2.9</b>	<b>2.6</b>	<b>0.3</b>	<b>NS<sup>2</sup></b>	<b>0.3</b>	<b>0.2</b>	<b>2.1</b>	<b>2.2</b>	<b>2.0</b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>		
<b>OverallMean</b>				<b>32237</b>	<b>31.9</b>	<b>26.0</b>	<b>35.1</b>	<b>7.4</b>	<b>2.7</b>	<b>2.8</b>	<b>2.4</b>	<b>36.5</b>	<b>37.1</b>	<b>31.2</b>	<b>35.0</b>	<b>56.6</b>	<b>59.1</b>	<b>66.3</b>	<b>69.2</b>	<b>11.3</b>	<b>3.7</b>			

\* All nutrient parameters analyzed by NIR methods, except where indicated. Select companies opted to receive wet chemistry information for an additional fee.

\*\* Tables are sorted by descending dry matter for comparison purposes

\*\*\* NDF = neutral detergent fiber, aNDFom = ash corrected neutral detergent fiber, NDFD = neutral detergent fiber digestibility, uNDF = undigested neutral detergent fiber

<sup>1</sup> RFC-Fill Ratio = Rumen Fermentable Carbohydrate - Fill Ratio, defined as ((NDFd30 + starch)/uNDF30). Jones, L.R., and J. Siciliano-Jones. 2015. Index useful for ranking silage samples. Feedstuffs 17, 19.

<sup>2</sup> NS = Not Significant

<sup>3</sup> One plot replicate had a harvest population count < 25,000

<sup>4</sup> Yield data removed due to 2 plot replicates having missing yield data during harvest

<sup>5</sup> Yield and harvest population data removed due to 2 plot replicates having a harvest population count < 25,000

† See Table 5: Trait Key

Company/Brand	Hybrid	Trait Code †	Relative Maturity	Harvest Population	Dry Matter	Yield, 35% DM	Starch	Crude Protein	Lignin	Ash	Total Fatty Acids	aNDFom	NDF	12 hr NDFD	Wet Chem aNDFom	Wet Chem 30 hr NDFD	30 hr NDFD	120 hr NDFD	240 hr NDFD	240 hr uNDFom	RFC - Fill Ratio <sup>1</sup>	CNCPS v. 7.0 Predicted Allowable Milk Yield lbs/day	CNCPS v. 7.0 Predicted Dry Matter Intake lbs/day
				plants/ac	%	tons/ac	% DM	% DM	% DM	% DM	% DM	% DM	% DM	% DM	% DM	% DM	% DM	% DM	% DM	% DM	% DM	% DM	
Schlessmanns	908 <sup>3</sup>	22	91	28169	29.1	17.9	33.1	7.0	2.6	2.9	2.2	37.3	38.1	28.3	37.0	53.3	58.7	65.1	68.0	12.0	3.4		
Syngenta NK	NK9175-3110	16	91	30782	31.3	20.2	38.0	6.8	2.6	2.8	2.5	34.7	35.4	27.6	34.3	55.1	57.4	64.7	67.9	11.2	3.8		
Local Seed Company	LC8667SSXRIB <sup>5</sup>	36	86	—	31.6	—	36.1	7.1	2.4	2.8	2.3	35.6	36.3	30.3			61.1	69.6	72.6	9.8	4.0		
Seedway	SW3110GENSS	36	90	31508	31.8	18.5	33.1	6.8	2.6	2.8	2.1	39.1	39.8	30.3			61.5	71.8	74.8	9.8	3.7		
Albert Lea Viking	O.71-90GS	1	90	29185	32.4	20.4	35.2	6.4	2.6	3.1	2.1	38.0	38.8	29.5			60.1	69.0	72.1	10.6	3.7		
Hubner	H6038RCSS	36	89	29621	33.4	17.9	40.7	7.1	2.3	3.0	2.4	33.8	34.3	30.0			60.9	67.4	70.4	10.1	4.5		
Growmark FS	FS4095X RIB	36	90	29476	34.1	20.6	38.5	7.1	2.3	3.3	2.3	33.0	34.2	30.1	33.6	57.2	62.0	68.2	71.1	9.6	4.3		
Masters Choice	MCT3891 <sup>5</sup>	10	88	—	34.8	—	39.4	7.1	2.4	2.7	2.4	35.7	36.2	29.9			60.1	66.5	69.4	11.0	4.2		
Local Seed Company	LC8597 VT2PRIB	41	85	31799	34.9	18.7	37.9	7.3	2.6	3.1	2.5	35.6	36.2	29.7			58.7	64.7	67.6	11.6	3.9		
Albert Lea Viking	O.58-85P	1	85	29330	35.1	20.6	40.0	6.8	2.3	2.9	2.5	33.3	34.0	30.3			60.7	69.1	72.1	9.4	4.4		
Hubner	HH6053RCSS	36	87	31508	36.0	18.3	40.8	7.0	2.3	3.0	2.6	33.6	34.1	30.0			60.2	67.0	69.7	10.2	4.4		
Dekalb	DKC36-30RIB	42	86	29621	36.6	19.3	40.2	6.4	2.3	2.8	2.5	34.5	35.1	30.9			61.1	67.4	70.3	10.3	4.4		
<b>85-91 day RM Mean</b>				<b>30100</b>	<b>33.4</b>	<b>19.2</b>	<b>37.7</b>	<b>6.9</b>	<b>2.4</b>	<b>2.9</b>	<b>2.4</b>	<b>35.3</b>	<b>36.1</b>	<b>29.7</b>	<b>34.9</b>	<b>55.2</b>	<b>60.2</b>	<b>67.5</b>	<b>70.5</b>	<b>10.5</b>	<b>4.0</b>		
Masters Choice	MCT4572	14	95	28750	29.4	18.2	35.8	7.0	2.6	2.8	2.3	36.9	37.5	28.2			59.1	65.5	68.3	11.8	3.7		
Channel	192-98STXRIB	36	92	31654	30.6	18.7	34.1	7.5	2.6	3.1	2.3	36.7	37.5	29.8			60.0	67.4	70.2	11.0	3.6		
Local Seed Company	ZS9598 5222EZ	16	95	30056	30.9	17.7	35.7	7.2	2.6	2.9	2.4	35.9	36.5	27.2			58.9	65.5	68.4	11.4	3.7		
Seed Consultants	SCS 958AGT	14	95	32089	31.0	20.1	31.6	6.5	2.6	3.0	2.1	38.9	39.8	30.7			62.5	68.5	71.5	11.1	3.7		
Dekalb	DKC45-07RIB	42	95	30056	31.7	19.9	34.9	7.2	2.4	3.6	2.2	36.1	37.2	29.9			62.0	70.3	73.4	9.7	3.9		
Dekalb	DKC44-80RIB	42	94	31654	31.8	18.8	37.6	6.5	2.4	3.0	2.3	36.0	36.6	30.7			60.3	67.7	70.6	10.7	4.0		
Seedway	SW3600GENSS <sup>4</sup>	36	92	28750	31.9	—	36.1	6.9	2.5	3.1	2.2	35.8	36.7	29.3			61.3	70.3	73.2	9.6	4.0		
Albert Lea Viking	O.82-95P	1	95	29911	31.9	19.5	35.9	7.1	2.3	3.1	2.4	36.7	37.3	31.7	36.9	62.9	62.5	69.1	72.0	10.3	4.2		
Dekalb	DKC42-04RIB	42	92	31073	32.6	19.0	40.0	7.1	2.4	3.1	2.4	34.4	35.0	29.5			58.9	66.2	69.1	10.8	4.2		
Local Seed Company	LC9278SSXRIB	36	92	31073	32.7	21.2	36.0	6.6	2.4	3.0	2.4	37.4	38.0	32.5			62.3	68.5	71.6	10.6	4.1		
Seedway	SW3768GENSS	36	95	30202	32.9	19.1	36.8	7.3	2.3	3.0	2.2	35.5	36.0	32.4			62.3	68.8	71.7	10.1	4.3		
Growmark FS	FS42R88VT2P	42	92	31799	32.9	13.1	37.0	6.6	2.3	3.1	2.5	34.4	36.1	31.1	34.8	54.3	61.5	67.8	70.7	10.2	3.9		
Albert Lea Viking	42-92P	1	92	32380	33.3	21.9	35.8	6.5	2.5	3.1	2.3	37.0	37.9	31.1			60.7	66.6	69.8	11.2	3.8		
Pioneer	P9330AM	3	93	30928	34.0	18.5	39.4	7.0	2.6	2.8	2.3	35.1	35.6	29.8			58.2	64.5	67.4	11.5	4.0		
<b>92-95 day RM Mean</b>				<b>30741</b>	<b>32.0</b>	<b>18.9</b>	<b>36.2</b>	<b>6.9</b>	<b>2.5</b>	<b>3.0</b>	<b>2.3</b>	<b>36.2</b>	<b>37.0</b>	<b>30.3</b>	<b>35.8</b>	<b>58.6</b>	<b>60.7</b>	<b>67.6</b>	<b>70.6</b>	<b>10.7</b>	<b>3.9</b>		
<b>LSD (0.10)</b>				<b>NS<sup>2</sup></b>	<b>2.6</b>	<b>NS<sup>2</sup></b>	<b>4.1</b>	<b>0.5</b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>	<b>3.1</b>	<b>3.1</b>	<b>2.2</b>	<b>2.3</b>	<b>3.5</b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>	<b>0.5</b>		
<b>Overall Mean</b>				<b>30474</b>	<b>32.6</b>	<b>19.0</b>	<b>36.9</b>	<b>6.9</b>	<b>2.5</b>	<b>3.0</b>	<b>2.3</b>	<b>35.8</b>	<b>36.6</b>	<b>30.0</b>	<b>35.3</b>	<b>56.5</b>	<b>60.5</b>	<b>67.6</b>	<b>70.5</b>	<b>10.6</b>	<b>4.0</b>		

\* All nutrient parameters analyzed by NIR methods, except where indicated. Select companies opted to receive wet chemistry information for an additional fee.

\*\* Tables are sorted by descending dry matter for comparison purposes

\*\*\* NDF = neutral detergent fiber, aNDFom = ash corrected neutral detergent fiber, NDFD = neutral detergent fiber digestibility, uNDF = undigested neutral detergent fiber

<sup>1</sup> RFC-Fill Ratio = Rumen Fermentable Carbohydrate - Fill Ratio, defined as ((NDFd30 + starch)/uNDF30). Jones, L.R., and J. Siciliano-Jones. 2015. Index useful for ranking silage samples. Feedstuffs 17, 19.

<sup>2</sup> NS = Not Significant

<sup>3</sup> One plot replicate had a harvest population count < 25,000

<sup>4</sup> Yield data removed due to 2 plot replicates having missing yield data during harvest

<sup>5</sup> Yield and harvest population data removed due to 2 plot replicates having a harvest population count < 25,000

† See Table 5: Trait Key

Company/Brand	Hybrid	Trait Code †	Relative Maturity	Harvest Population	Dry Matter	Yield, 35% DM	Starch	Crude Protein	Lignin	Ash	Total Fatty Acids	aNDFom	NDF	12 hr NDFD	Wet Chem aNDFom	Wet Chem 30 hr NDFD	30 hr NDFD	120 hr NDFD	240 hr NDFD	240 hr uNDFom	RFC - Fill Ratio <sup>1</sup>	CNCPS v. 7.0 Predicted Allowable Milk Yield	CNCPS v. 7.0 Predicted Dry Matter Intake	
				plants/ac	%	tons/ac	% DM	% DM	% DM	% DM	% DM	% DM	% DM	% DM	% DM	% DM	% DM	% NDFom	% NDFom	% NDFom	% NDFom	% DM		lbs/day
Schlessmanns	908	22	91	29548	31.2	22.5	35.2	7.8	3.0	3.7	2.4	37.5	38.1	30.7	37.6	52.1	54.6	66.3	69.0	11.7	3.2			
Local Seed Company	LC86675SXRIB	36	86	27515	32.8	21.0	37.3	7.3	2.8	3.8	2.5	36.5	37.0	32.7			57.4	69.4	72.3	10.1	3.7			
Hubner	H6038RCSS	36	89	32307	33.4	20.8	35.8	7.8	3.0	4.1	2.6	37.9	38.4	31.7			55.9	66.5	69.3	11.7	3.3			
Albert Lea Viking	O.58-85P	1	85	30492	33.4	23.9	37.4	7.0	3.0	4.0	2.6	36.9	37.4	31.7			55.9	67.2	70.1	11.1	3.5			
Growmark FS	FS4095X RIB	36	90	30928	33.5	21.6	36.9	7.4	2.9	3.8	2.4	37.0	37.5	31.9	36.5	52.6	56.2	67.1	70.1	11.1	3.5			
Albert Lea Viking	O.71-90GS	1	90	29693	33.7	24.9	38.1	6.9	3.0	3.7	2.6	37.2	37.7	32.3			56.1	66.8	69.7	11.3	3.5			
Seedway	SW3110GENSS	36	90	30710	34.2	23.4	37.4	7.3	3.0	3.9	2.6	37.2	37.7	31.2			56.0	66.9	69.7	11.3	3.5			
Syngenta NK	NK9175-3110	16	91	30710	34.3	25.6	40.1	6.8	2.9	3.3	2.6	34.8	35.3	29.0	33.7	51.9	53.7	65.2	68.0	11.2	3.6			
Hubner	HH6053RCSS	36	87	29621	35.1	21.3	41.1	7.3	2.6	3.4	2.6	34.3	34.9	33.8			58.1	68.7	71.5	9.8	4.1			
Dekalb	DKC36-30RIB	42	86	31073	35.3	22.9	37.1	7.0	2.9	3.9	2.5	37.4	38.0	32.7			57.0	69.1	72.0	10.6	3.5			
Local Seed Company	LC8597 VT2PRIB	41	85	32380	36.2	23.8	36.1	6.9	3.1	3.7	2.5	38.8	39.5	32.0			55.7	66.8	69.6	11.9	3.3			
Masters Choice	MCT3891 <sup>3</sup>	10	88	25628	36.3	21.7	36.8	7.8	2.9	3.7	2.6	37.8	38.3	31.9			56.7	66.3	69.1	11.7	3.5			
<b>85-91 day RM Mean</b>				<b>30050</b>	<b>34.1</b>	<b>22.8</b>	<b>37.4</b>	<b>7.3</b>	<b>2.9</b>	<b>3.8</b>	<b>2.5</b>	<b>36.9</b>	<b>37.5</b>	<b>31.8</b>	<b>35.9</b>	<b>52.2</b>	<b>56.1</b>	<b>67.2</b>	<b>70.0</b>	<b>11.1</b>	<b>3.5</b>			
Albert Lea Viking	O.82-95P	1	95	31436	31.8	21.1	32.2	8.0	3.1	4.4	2.4	39.6	40.2	32.3	39.7	56.5	57.0	67.8	70.6	11.7	3.2			
Seedway	SW3600GENSS	36	92	30419	32.1	22.5	31.6	7.2	3.3	4.0	2.2	42.2	42.8	31.6			55.3	67.0	69.8	12.8	2.9			
Dekalb	DKC44-80RIB	42	94	31799	32.5	24.0	37.5	6.5	2.8	4.1	2.4	37.4	38.0	34.1			57.9	70.7	73.8	9.8	3.6			
Dekalb	DKC45-07RIB	42	95	31654	32.5	23.7	35.8	7.7	2.9	4.5	2.5	38.2	38.7	32.1			56.8	67.9	70.9	11.2	3.4			
Local Seed Company	ZS9598 5222EZ	16	95	31654	32.6	21.3	35.3	7.4	3.0	3.9	2.4	37.7	38.3	30.0			54.9	66.3	69.2	11.7	3.2			
Masters Choice	MCT4572	14	95	30928	32.9	23.9	36.7	7.4	2.9	3.4	2.4	37.3	37.9	31.1			56.9	67.1	70.0	11.2	3.5			
Seedway	SW3768GENSS	36	95	30274	33.4	22.5	35.7	7.2	3.1	3.7	2.5	38.9	39.5	32.0			55.4	66.5	69.4	12.0	3.3			
Local Seed Company	LC92785SXRIB	36	92	31799	33.7	24.9	36.8	7.1	2.8	3.6	2.5	38.5	39.1	33.7			58.6	70.2	73.2	10.4	3.6			
Pioneer	P9330AM	3	93	31654	33.8	21.0	35.3	7.3	3.3	4.0	2.4	40.4	41.0	30.1			54.2	65.4	68.2	12.9	3.0			
Growmark FS	FS42R88VT2P	42	92	30928	33.9	23.0	36.0	7.4	2.9	4.2	2.6	38.4	39.0	32.2	38.5	54.7	58.0	69.0	71.9	10.8	3.5			
Seed Consultants	SCS 958AGT	14	95	31037	33.9	25.6	36.6	7.3	2.7	3.4	2.5	37.4	38.0	35.1			60.4	71.1	74.1	9.7	3.9			
Dekalb	DKC42-04RIB	42	92	30782	34.0	24.7	37.5	7.5	3.0	3.6	2.5	37.5	38.0	31.7			55.5	66.2	69.0	11.7	3.4			
Channels	192-98STXRIB	36	92	31581	34.2	24.8	35.0	7.2	3.1	4.0	2.5	39.0	39.6	31.6			55.9	66.1	69.0	12.2	3.2			
Albert Lea Viking	42-92P	1	92	30202	34.5	28.3	36.6	7.2	2.9	4.0	2.5	38.0	38.6	34.0			58.1	68.6	71.6	10.8	3.6			
<b>92-95 day RM Mean</b>				<b>31153</b>	<b>33.3</b>	<b>23.7</b>	<b>35.6</b>	<b>7.3</b>	<b>3.0</b>	<b>3.9</b>	<b>2.4</b>	<b>38.6</b>	<b>39.2</b>	<b>32.3</b>	<b>39.1</b>	<b>55.6</b>	<b>56.8</b>	<b>67.9</b>	<b>70.8</b>	<b>11.4</b>	<b>3.4</b>			
<b>LSD (0.10)</b>				<b>1830</b>	<b>1.6</b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>	<b>0.5</b>	<b>0.2</b>	<b>0.5</b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>	<b>NS<sup>2</sup></b>	<b>2.4</b>	<b>3.0</b>	<b>3.1</b>	<b>2.2</b>	<b>2.6</b>	<b>2.7</b>	<b>1.3</b>	<b>0.4</b>		
<b>OverallMean</b>				<b>30644</b>	<b>33.7</b>	<b>23.3</b>	<b>36.5</b>	<b>7.3</b>	<b>3.0</b>	<b>3.8</b>	<b>2.5</b>	<b>37.8</b>	<b>38.4</b>	<b>32.1</b>	<b>37.2</b>	<b>53.5</b>	<b>56.5</b>	<b>67.6</b>	<b>70.4</b>	<b>11.2</b>	<b>3.4</b>			

\* All nutrient parameters analyzed by NIR methods, except where indicated. Select companies opted to receive wet chemistry information for an additional fee.

\*\* Tables are sorted by descending dry matter for comparison purposes

\*\*\* NDF = neutral detergent fiber, aNDFom = ash corrected neutral detergent fiber, NDFD = neutral detergent fiber digestibility, uNDF = undigested neutral detergent fiber

<sup>1</sup> RFC-Fill Ratio = Rumen Fermentable Carbohydrate - Fill Ratio, defined as ((NDFd30 + starch)/uNDF30). Jones, L.R., and J. Siciliano-Jones. 2015. Index useful for ranking silage samples. Feedstuffs 17, 19.

<sup>2</sup> NS = Not Significant

<sup>3</sup> One plot replicate had a harvest population count < 25,000

<sup>4</sup> Yield data removed due to 2 plot replicates having missing yield data during harvest

<sup>5</sup> Yield and harvest population data removed due to 2 plot replicates having a harvest population count < 25,000

† See Table 5: Trait Key









Trait Code	Trait
1	Conventional
2	Roundup Ready (RR), Roundup Ready 2 (RR2)
3	AcreMax (AM)
4	AcreMax CRW (AMRW)
5	AcreMax1 (AM1)
6	AcreMax Leptra (AML)
7	AcreMax TRIssect (AMT)
8	AcreMax Xtra (AMX)
9	AcreMax Xtreme (AMXT)
10	Agrisure GT
11	Agrisure GT/RW
12	Agrisure 3010
13	Agrisure 3010A
14	Agrisure 3000GT
15	Agrisure 3011A
16	Agrisure Viptera 3110 and 3110A
17	Agrisure Viptera 3111
18	Agrisure3120 EZ Refuge
19	Agrisure3122 EZ Refuge
20	Agrisure Viptera 3220 EZ Refuge
21	Agrisure Duracade 5122 EZ Refuge
22	Agrisure Duracade 5222 EZ Refuge
23	Herculex I (HXI)
24	Herculex RW (HXRW)
25	Herculex XTRA (HXX)
26	Intrasect (YHR)
27	Intrasect TRIssect (CYHR)
28	Intrasect Xtra (YXR)
29	Intrasect Xtreme (CYXR)
30	Leptra (VYHR)
31	Powercore
32	Powercore Refuge Advanced
33	QROME (Q)
34	SmartStax
35	Smartstax Refuge Advanced
36	SmartStax RIB Complete
37	SmartStax Enlist
38	Trecepta
39	Trecepta RIB Complete
40	TRIssect (CHR)
41	VT Double PRO
42	VT Double PRO RIB Complete
43	VT Triple PRO
44	VT Triple PRO RIB Complete
45	Yieldgard Corn Borer (YGCB)
46	Yieldgard Rootworm (YGRW)
47	Yieldgard VT Triple
48	Floury Leafy
49	RW/HXX/YGCB/LL/RR2
50	HX1/YGCB/LL/RR2
51	HXX/YGCB/LL/RR2
52	AMXT,LL,RR2