

Cornell **CALS**

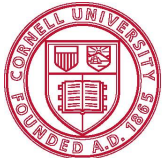
College of Agriculture
and Life Sciences

Cornell Cooperative Extension

2018 New York Hybrid Corn Grain Performance Trials



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Cornell University
Cooperative Extension

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TO: Persons interested in the grain yield performance of corn hybrids in New York

This report includes a summary of our 2018 commercial hybrid corn grain trials. It shows results from seven locations in New York, divided into the following two maturity ranges:

	Base 50 Growing Degree Days	Relative Maturity
Early/Medium-early	1900-2300 GDD	75-95 Days
Medium	2300-2700 GDD	95-115 Days

This report is designed to aid seed company representatives, corn growers, and extension educators in evaluating hybrids for yield capacity, stalk and root strength, and maturity in various regions in New York. It also provides information for developing ratings for the [Cornell Guide for Integrated Field Crop Management](#).

While many hybrids included in this report are widely grown, others are new or experimental hybrids. In considering these tables, remember that this data represents only one year. Test results should be considered over several years before final conclusions are valid. Results gathered over several locations are a better guide than results at any one location.

We welcome comments or suggestions for improving this report for your use.

Sincerely yours,

A handwritten signature in blue ink that reads 'Margaret E. Smith'.

Margaret E. Smith
Extension Leader, Plant Breeding & Genetics

For information on entering hybrids in the 2019 trials, please contact Judy Singer at jls10@cornell.edu or 607-255-5461 or Margaret Smith.

1/2019
PB&G2019-1

Building Strong and Vibrant New York Communities

Cornell Cooperative Extension provides equal program and employment opportunities. NYS College of Agriculture and Life Sciences, NYS College of Human Ecology, and NYS College of Veterinary Medicine at Cornell University, Cooperative Extension associations, county governing bodies, and U.S. Department of Agriculture, cooperating.

2018 Growing Conditions

New York's 2018 corn growing season began with rather dry conditions during planting and early summer, to the point where many were worried about drought stress. By July, drought was no longer a concern and much of the state had average or above average precipitation from that time through the fall. Exceptions occurred in northern and western parts of the state, where rainfall was average or a bit below all season. Warmer-than-average temperatures throughout the season combined with good rains during flowering resulted in excellent crop development. Unfortunately, certain parts of the state had rains that continued into late fall, making it difficult for farmers to harvest in a timely manner. Fall rainfall in some areas was very heavy, including monthly totals that ranged from 6" to over 10". By the last week of November, New York's Agricultural Statistics Service estimated that only 2/3 of the corn grain acres in the state had been harvested. Corn grain that remained in the field after this had increasing problems with grain mold and mycotoxins. Yield on those acres that were harvested was excellent. State average yield was reported at 166 bu/A – 5 bu/A higher than the record set in 2017 and well above previous records (149 bu/A in 2010 and 148 bu/A in 2014). Despite all the wet weather, leaf disease pressure was minimal. Northern leaf blight occurred in patches at low to moderate levels and gray leaf spot was found in high-humidity river valley areas. Anthracnose top die-back appeared to be fairly common towards the end of the growing season.

Testing Procedures

Regional test locations for 2018 are shown on page –iii-. Tests were planted in 1/500 acre plots with three replications per location. All sites were machine planted and combine harvested. Grain weight and grain moisture percentage for each plot were measured electronically on the combine. Grain yields were calculated in bu/acre at 15.5% moisture.

Yield Moisture Ratio

We have included a yield to moisture ratio (**Y/M Ratio**), which is the grain yield in bu/acre divided by the percentage grain moisture at harvest. Some breeders use this number as an estimate of hybrid efficiency. Hybrids that show high yields and earlier maturity (lower grain moistures) have higher Y/M ratios.

Stalk Lodging and Root Lodging

At harvest time, we counted the number of stalks broken (or lodged) below the ear. This number was expressed as a proportion of the total number of plants in the plot (**% Stalk Ldg**). We also counted plants leaning over from the base at more than a 45° angle as root lodged, and then expressed this number as a proportion of the total number of plants in the plot (**% Root Ldg**).

Early Vigor, Staygreen, Leaf Disease Ratings

Data were collected on these traits at locations where expression was uniform across the field and, for diseases, where disease pressure was sufficient. **Early Vigor** was evaluated at knee-high stage or a bit earlier, with 5 = excellent vigor and 1 = very poor vigor. Stay green (**Stay Grn**) is a measure of how much green leaf area remains on plants in September; 5 = completely dry plants and 1 = completely green plants. Gray leaf spot resistance (**Gray Leaf Spot**) was rated using a scale where 5 = completely susceptible (plant dead due to disease) and 0 = no disease apparent.

CV, LSD, SD

We use three statistics to evaluate the quality of the data from these experiments. The coefficient of variation (**CV**) is a measure of the amount of uncontrolled variability due to differences in the soil, microclimate, fertility, etc. Grain yield CVs below 12 are excellent; those ranging up to 15 are considered acceptable. Grain moisture CVs below 5 are excellent. The least significant difference (**LSD**) is computed at the 5% level of probability. If a difference between two hybrids is larger than the LSD listed for the trial, then the odds are at least 95 to 5 (or 19 to 1) that there is true varietal difference between the hybrids, or, as the statisticians say, the difference between the two hybrids is "significant." Farmers who need businessmen's odds more than statistical precision may consider a 10 bu/acre grain yield difference sufficient to guide a decision in choice of hybrid. The standard deviation (**SD**) is the measure used to determine whether the differences between two hybrids are large enough, given the precision of that experiment, to be significant and probably due to true differences between the hybrids.

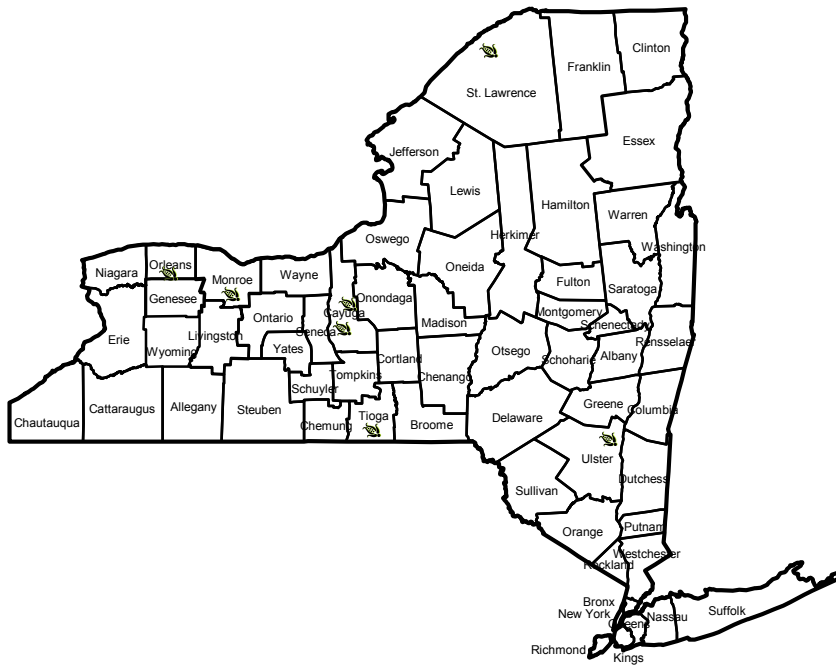
Acknowledgments

Financial support from the seed companies entering hybrids in these tests is gratefully acknowledged. We also acknowledge support from USDA-NIFA Smith Lever Project 1497603, USDA-NIFA Hatch Project 1497404, and the Cornell University Agricultural Experiment Station.

**NOTE: TABLES IN THIS PUBLICATION SHOULD NOT BE REPRODUCED
IF ANY PORTION IS OMITTED OR IF ORDER OF DATA IS CHANGED.**

The information given herein is supplied with the understanding that no discrimination is intended and no endorsement by Cornell Cooperative Extension is implied.

2018 Trial Locations



**2018 Cooperators
Early/Medium-early Grain Series**

Cornell Cooperative Extension			
County	Local Contact	Cooperator	Location
Orleans	Mike Stanyard	Hugh Dudley	Albion
Tioga	Janice Degni	Craig Strong	Tioga
St. Lawrence	Kitty O'Neil	Jon Greenwood	Madrid
Cayuga	Keith Severson	Steve Nemeč	New Hope

Medium Grain Series

Cornell Cooperative Extension			
County	Local Contact	Cooperator	Location
Cayuga	Keith Severson	Paul Stachowski	Aurora
Tioga	Janice Degni	Craig Strong	Tioga
Ulster	Justin O'Dea	Joe Hasbrouck	Kingston
Monroe	Mike Stanyard	Mark Greene	Pittsford

2018 Participating Companies

Company/Brand	Contact for Information	Address & Phone
Albert Lea Seed Viking Brand www.alseed.com	Jake Hansen jake@alseed.com	1414 W. Main, PO Box 127 Albert Lea, MN 56007 Phone: 800-352-5247
Augusta Seed Co. www.augustaseed.com	Matthew Rawley matt.rawley@augustaseed.com	P.O. Box 899 Verona, VA 24482 Phone: 540-886-6055
Local Seed Co. www.localseed.com info@localseed.com	Doug Messersmith doug.messersmith@localseed.com Phone: 570-753-5503	802 Rozelle Street Memphis, TN 38104 Phone: 901-260-6000
Nutrien Ag Solutions Dyna-Gro Brand www.nutrienagsolutions.com	Tom Barber tom.barber@nutrien.com	1140 Sweet Road East Aurora, NY 14052 Phone: 716-912-5494
Seed Consultants, Inc. Doebler's Brand www.seedconsultants.com	Jordan Bassler jordan.bassler@seedconsultants.com Phone: 570-980-3906	648 Miami Trace Rd SW, PO Box 370 Washington Court House, OH 43160 Phone: 800-708-2676
WinField United CROPLAN Brand www.croplan.com	Klaus Busch kbusch@landolakes.com	451 State Route 146 Delanson, NY 12053 Phone: 518-545-8094

2018 Entries

Company/Brand	Maturity Group*	Hybrid	Relative Maturity	Genetically Engineered Traits**	Seed Treatment**
Albert Lea Seed-Viking Brand	2	O.71-90UP	90	None	C250+SabrEx
Albert Lea Seed-Viking Brand	2	46-96	96	None	A500V
Albert Lea Seed-Viking Brand	2	O.98-98	98	None	A250
Albert Lea Seed Viking Brand	3	O.79-00	100	None	IR+SabrEx
Albert Lea Seed-Viking Brand	3	O.55-02	102	None	A500V
Albert Lea Seed-Viking Brand	3	O.48-08GS	108	None	A500V
Augusta Seed Co.	2	A3750	100	3000GT	Cruiser Maxx 250
Augusta Seed Co.	2	A2345	95	3110GT	Cruiser Maxx 250
Augusta Seed Co.	3	A5162	112	3000GT	Cruiser Maxx 250
Local Seed Co.	2	LC9278 SSXRIB	92	SS/CB,RW,RR,LL	CruiserMaxx 250
Local Seed Co.	2	LC9467 VT2PRIB	94	VT2Pro	CruiserMaxx 250
Local Seed Co.	3	LC0488SSX	104	SS/CB,RW,RR,LL	CruiserMaxx 250
Local Seed Co.	3	LC0657 VT2PRIB	106	SS/CB,RW,RR,LL	CruiserMaxx 250
Nutrien Ag Sololutions-Dyna-Gro Brand	2	D35SS58	95	SMARTSTAX	VP-Poncho 500/VotivoD3VP
Nutrien Ag Sololutions-Dyna-Gro Brand	2	D39DC43	99	DG/VT2 PRO	VP-Poncho 500/Votivo
Nutrien Ag Sololutions-Dyna-Gro Brand	2	D37VC64	97	VT2 PRO	VP-Poncho 500/Votivo
Seed Consultants, Inc.-Doebler's Brand	1	2519AM	85	HX1/YGCB/LL/RR2	Votivo+1250
Seed Consultants, Inc.-Doebler's Brand	2	4018AMXT	100	RW/HXX/YGCB/LL/RR2	C250+Raxil
Seed Consultants, Inc.-Doebler's Brand	2	3518AM	95	HX1/YGCB/LL/RR2	Votivo+1250
Seed Consultants, Inc.-Doebler's Brand	2	3618AMXT	96	RW/HXX/YGCB/LL/RR2	C250+Raxil
Seed Consultants, Inc.-Doebler's Brand	3	4318AMXT	103	RW/HXX/YGCB/LL/RR2	C250+Raxil
Seed Consultants, Inc.-Doebler's Brand	3	4417AMXT	104	RW/HXX/YGCB/LL/RR2	C250+Raxil
WinField United-CROPLAN Brand	2	3575	95	VT2PRIB	A250
WinField United-CROPLAN Brand	2	3795	97	VT2PRIB	A250
WinField United-CROPLAN Brand	2	3899	98	VT2PRIB	A250

* 1 = Early; 2 = Medium-early; 3 = Medium

** Trait abbreviations and Seed treatments are as provided by each seed company

**Table 1. 2018 Early/Medium-Early Maturity Hybrids Trial Summary
(Madrid, Albion, New Hope, Tioga)**

Company/Brand	Hybrid	Yield Bu/A	% Moisture	Y/M Ratio	% Stalk Ldg	% Root Ldg	Stay Grn
Doebler's	2519AM	172	18.4	9.5	3	0	2.8
CROPLAN	3575	201	18.7	10.9	2	0	2.1
Local Seed Co.	LC9278 SSXRIB	211	18.9	11.3	2	0	3.2
Dyna-Gro	D37VC64	213	19.0	11.4	8	0	2.1
Dyna-Gro	D35SS58	210	19.0	11.1	6	0	1.9
Augusta Seed Co.	A2345	215	19.3	11.3	2	0	2.2
Dyna-Gro	D39DC43	227	19.3	12.0	1	0	2.2
Albert Lea Seed	O.98-98	222	19.4	11.7	1	0	2.0
Local Seed Co.	LC9467 VT2PRIB	195	19.5	10.2	2	1	2.6
Albert Lea Seed	O.71-90UP	180	19.7	9.4	18	1	3.0
Doebler's	3618AMXT	215	19.8	11.1	2	0	1.8
Doebler's	4018AMXT	242	19.8	12.6	0	0	1.6
Augusta Seed Co.	A3750	195	19.8	10.0	13	0	1.6
Albert Lea Seed	46-96	203	19.9	10.4	6	1	2.8
CROPLAN	3795	214	19.9	11.1	5	0	2.3
CROPLAN	3899	216	20.2	11.0	1	0	2.0
Doebler's	3518AM	227	20.4	11.5	2	0	2.6
	MEAN	209	19.5	11.0	4	0	2.3
	S.D.	18	0.8				
	C.V.	9	4.4				
	LSD(.05)	14	0.7				

SPECIAL NOTE: 2018 FIELD CONDITIONS

Please be aware that field conditions in 2018 were highly variable over the course of the growing season and among individual locations in our testing program. For example, our field plot at Tioga was flooded with 2-3 ft of water twice during the summer. Other locations had different weather-related challenges. This variability appears to have resulted in hybrid performance that differed quite a bit from one individual location to another. As noted at the beginning of this report, recall that results gathered over several locations are a better guide to hybrid performance than results at any one location. The multi-location results average out the extremes and reflect which hybrids can perform consistently despite variable environmental conditions. Also recall that these results are for one year only, and valid conclusions rely on multi-year as well as multi-location data.

Table 2. 2018 Early/Medium-Early Maturity Hybrids, Madrid, St. Lawrence County, Northern NY

Company/Brand	Hybrid	Yield Bu/A	% Moisture		% Stalk		% Root		Stay Grn	Planted: May 9 2018	Harvested: Oct 26 2018							
			Mois	ture	Y/M Ratio	Ldg	Ldg	Grn				Degree Days (Inches)						
Doebler's	4018AMXT	245	16.7	14.7	0	0	1.8			86/50								
Doebler's	2519AM	169	16.7	10.1	0	0	2.5			Growing	Rainfall							
Local Seed Co.	LC9278 SSXRIB	193	16.8	11.5	0	0	2.3			Degree Days (Inches)								
Augusta Seed Co.	A3750	214	17.0	12.6	1	0	1.3			2018	Ave.	2018	Ave.					
CROPLAN	3575	187	17.1	11.0	0	0	1.5	May	372	308	2.9	3.0						
Augusta Seed Co.	A2345	195	17.1	11.4	0	0	1.7	June	433	482	2.3	3.5						
Albert Lea Seed	O.98-98	211	17.1	12.3	1	0	1.5	July	695	649	2.3	3.4						
Dyna-Gro	D35SS58	189	17.1	11.0	0	0	1.8	Aug	664	581	4.1	3.6						
Local Seed Co.	LC9467 VT2PRIB	172	17.1	10.0	1	0	1.3	Sept	431	354	2.7	3.6						
CROPLAN	3795	222	17.2	13.0	5	0	2.5	Oct	84	154	3.2	3.6						
Albert Lea Seed	O.71-90UP	223	17.2	12.9	6	1	2.0											
Dyna-Gro	D39DC43	196	17.2	11.4	4	0	1.8	Total	2679	2527	17.5	20.7						
Dyna-Gro	D37VC64	176	17.2	10.3	7	0	1.8	% Norm	106		84.7							
CROPLAN	3899	229	17.4	13.2	1	0	1.3	Departure	153		-3.2							
Doebler's	3618AMXT	220	17.8	12.4	0	0	1.8											
Albert Lea Seed	46-96	193	17.9	10.8	10	2	2.3											
Doebler's	3518AM	241	18.1	13.4	1	0	2.2											
	MEAN	204	17.2	11.9	2	0	1.8											
	S.D.	15	0.6															
	C.V.	7	3.6															
	LSD(.05)	25	1.0															

Table 3. 2018 Early/Medium-Early Maturity Hybrids, Albion, Orleans County, Western NY

Company/Brand	Hybrid	Yield Bu/A	% Moisture		% Stalk		% Root		Stay Grn	Planted: May 10 2018	Harvested: Oct 19 2018							
			Mois	ture	Y/M Ratio	Ldg	Ldg	Grn				Degree Days (Inches)						
Doebler's	2519AM	204	16.1	12.6	2	0	3.2			86/50								
Albert Lea Seed	O.71-90UP	176	16.9	10.5	10	2	3.8			Growing	Rainfall							
Albert Lea Seed	O.98-98	241	16.9	14.2	0	0	3.2			Degree Days (Inches)								
Local Seed Co.	LC9278 SSXRIB	225	17.0	13.2	0	0	4.2			2018	Ave.	2018	Ave.					
Dyna-Gro	D37VC64	245	17.0	14.4	2	0	3.2	May	460	332	1.7	3.0						
CROPLAN	3575	218	17.1	12.8	1	0	3.2	June	499	523	1.7	3.0						
Dyna-Gro	D35SS58	230	17.1	13.4	2	0	3.3	July	712	661	2.5	3.1						
Albert Lea Seed	46-96	212	17.2	12.4	4	1	4.3	Aug	703	619	2.6	3.1						
Augusta Seed Co.	A2345	207	17.3	11.9	4	0	3.2	Sept	495	420	2.8	3.6						
Local Seed Co.	LC9467 VT2PRIB	210	17.4	12.1	1	0	4.0	Oct	160	197	3.0	3.1						
Dyna-Gro	D39DC43	242	17.4	13.9	0	0	3.0											
Doebler's	3618AMXT	229	17.5	13.1	2	0	3.2	Total	3029	2752	14.4	18.8						
Doebler's	3518AM	233	17.6	13.3	2	0	4.2	% Norm	110		76.2							
Augusta Seed Co.	A3750	191	17.7	10.8	17	0	2.3	Departure	277		-4.5							
Doebler's	4018AMXT	247	17.9	13.8	0	0	3.2											
CROPLAN	3795	234	18.1	12.9	7	0	3.5											
CROPLAN	3899	240	18.4	13.0	1	0	3.2											
	MEAN	223	17.3	12.8	3	0	3.4											
	S.D.	16	0.4															
	C.V.	7	2.2															
	LSD(.05)	27	0.6															

Table 4. 2018 Early/Medium-Early Maturity Hybrids, New Hope, Cayuga County, Central NY

Company/Brand	Hybrid	Yield Bu/A	% Mo ture	Y/M Ratio	% Stalk Ldg	% Root Ldg	% Stay Grn		Planted:	Harvested:		
									May 26 2018	Nov 8 2018		
Doebler's	2519AM	171	21.6	7.9	5	0	2.0		86/50			
Local Seed Co.	LC9278 SSXRIB	219	22.8	9.7	0	0	1.8		Growing	Rainfall		
CROPLAN	3575	207	22.9	9.1	1	0	1.2		Degree Days (Inches)			
Augusta Seed Co.	A2345	211	23.6	8.9	4	0	1.5		2018	Ave.	2018	Ave.
Dyna-Gro	D37VC64	226	23.7	9.5	1	0	1.2	May	400	267	2.4	3.6
Dyna-Gro	D35SS58	240	23.8	10.1	3	0	0.3	June	433	446	2.2	4.3
Local Seed Co.	LC9467 VT2PRIB	213	24.1	8.9	2	4	1.7	July	665	574	5.7	4.0
Albert Lea Seed	O.71-90UP	187	24.4	7.7	13	0	1.7	Aug	652	535	5.3	3.8
Augusta Seed Co.	A3750	226	24.5	9.3	0	0	0.5	Sept	460	337	4.7	4.2
Doebler's	3618AMXT	219	24.5	8.9	0	0	0.5	Oct	157	138	5.4	4.0
Dyna-Gro	D39DC43	236	24.7	9.6	2	0	1.3					
Albert Lea Seed	O.98-98	224	24.7	9.0	1	1	1.0	Total	2767	2159	25.7	23.9
Doebler's	4018AMXT	235	25.2	9.3	0	0	0.2	% Norm	128		107.6	
CROPLAN	3899	208	25.3	8.2	0	0	1.2	Departure	608		1.8	
Albert Lea Seed	46-96	218	25.6	8.5	3	0	1.8					
CROPLAN	3795	204	26.0	7.9	1	1	0.8					
Doebler's	3518AM	224	26.4	8.5	0	0	1.5					
	MEAN	216	24.3	8.9	2	0	1.2					
	S.D.	17	1.1									
	C.V.	8	4.6									
	LSD(.05)	28	1.9									

Table 5. 2018 Early/Medium-Early Maturity Hybrids, Tioga, Tioga County, Southern Tier NY

Company/Brand	Hybrid	Yield Bu/A	% Mo ture	Y/M Ratio	% Stalk Ldg	% Root Ldg	% Stay Grn	Gray Leaf Spot	Planted:	Harvested:			
									May 18 2018	Nov 29 2018			
CROPLAN	3575	191	17.9	10.7	5	0	2.8	3.3		86/50			
Dyna-Gro	D37VC64	203	17.9	11.4	22	0	2.5	3.6		Growing	Rainfall		
Dyna-Gro	D35SS58	180	18.0	10.0	19	0	2.1	2.3		Degree Days (Inches)			
Dyna-Gro	D39DC43	235	18.0	13.0	1	0	2.8	2.7		2018	Ave.	2018	Ave.
CROPLAN	3795	197	18.4	10.8	6	0	2.3	2.8	May	397	350	4.6	3.3
Albert Lea Seed	46-96	188	18.8	10.0	9	0	2.8	3.0	June	448	535	4.1	4.1
Local Seed Co.	LC9278 SSXRIB	206	19.0	10.9	8	0	4.3	3.8	July	638	639	8.5	3.5
Augusta Seed Co.	A2345	248	19.0	13.0	1	0	2.5	1.7	Aug	648	619	6.6	3.5
Albert Lea Seed	O.98-98	212	19.0	11.1	2	0	2.3	3.2	Sept	469	421	10.5	3.4
Doebler's	2519AM	144	19.2	7.5	3	0	3.3	3.7	Oct	168	174	4.5	3.4
Doebler's	3618AMXT	194	19.2	10.1	5	0	1.8	1.3					
Doebler's	4018AMXT	242	19.3	12.6	1	0	1.5	1.3	Total	2768	2737	38.7	21.2
Doebler's	3518AM	209	19.3	10.8	7	1	2.7	1.8	% Norm	101		182.7	
Local Seed Co.	LC9467 VT2PRIB	187	19.6	9.7	4	0	3.3	3.8	Departure	32		17.5	
CROPLAN	3899	187	19.7	9.6	4	0	2.5	3.0					
Augusta Seed Co.	A3750	149	20.0	7.5	35	1	2.3	1.7					
Albert Lea Seed	O.71-90UP	134	20.3	6.6	41	0	4.5	4.8					
	MEAN	194	19.0	10.3	10	0	2.7	2.8					
	S.D.	24	1.1										
	C.V.	12	5.8										
	LSD(.05)	40	1.8										

**Table 6. 2018 Medium Maturity Hybrids Trial Summary
(Aurora, Tioga, Pittsford, Kingston)**

Company/Brand	Hybrid	Yield Bu/A	% Mois ture	Y/M Ratio	% Stalk Ldg	% Root Ldg	Stay Grn*	Gray Leaf Spot**
Albert Lea Seed	O.79-00	175	18.3	9.6	10	2	4.1	1.5
Local Seed Co.	LC0657 VT2PRIB	206	19.2	10.8	8	1	3.0	0.8
Doebler's	4318AMXT	219	19.3	11.4	5	3	2.3	1.0
Local Seed Co.	LC0488SSX	211	19.8	10.7	2	0	1.9	0.9
Albert Lea Seed	O.48-08GS	208	21.0	10.0	5	1	2.2	1.5
Albert Lea Seed	O.55-02	203	21.1	9.8	6	2	3.0	3.8
Augusta Seed Co.	A5162	234	22.1	10.7	11	0	1.9	1.3
	MEAN	208	20.1	10.4	7	1	2.6	1.6
	S.D.	20	1.0					
	C.V.	9	5.0					
	LSD(.05)	16	0.8					

* 3 location data

** 2 location data

SPECIAL NOTE: 2018 FIELD CONDITIONS

Please be aware that field conditions in 2018 were highly variable over the course of the growing season and among individual locations in our testing program. For example, our field plot at Kingston had heat unit accumulation that was 39% higher than long-term averages in August and September, resulting in extremely dry stalks by harvest time and very high stalk lodging. Our Tioga site was flooded with 2-3 ft of water twice during the summer. Other locations had different weather-related challenges. This variability appears to have resulted in hybrid performance that differed quite a bit from one individual location to another. As noted at the beginning of this report, recall that results gathered over several locations are a better guide to hybrid performance than results at any one location. The multi-location results average out the extremes and reflect which hybrids can perform consistently despite variable environmental conditions. Also recall that these results are for one year only, and valid conclusions rely on multi-year as well as multi-location data.

Table 7. 2018 Medium Maturity Hybrids, Aurora, Cayuga County, Central NY

Company/Brand	Hybrid	Yield Bu/A	% Moisture			% Stalk		% Root		Planted: May 29 2018	Harvested: Dec 7 2018
			Mois ture	Y/M Ratio	Stalk Ldg	Root Ldg					
Albert Lea Seed	O.79-00	181	19.0	9.5	6	1	86/50				
Local Seed Co.	LC0488SSX	221	20.2	11.0	4	0	Growing Rainfall				
Local Seed Co.	LC0657 VT2PRIB	200	20.2	9.9	4	0	Degree Days (Inches)				
Doebler's	4318AMXT	211	20.9	10.1	1	2	2018 Ave. 2018 Ave.				
Albert Lea Seed	O.48-08GS	209	21.8	9.6	2	2	May	414	315	2.0	3.2
Albert Lea Seed	O.55-02	196	22.8	8.6	2	0	June	465	498	1.6	3.8
Augusta Seed Co.	A5162	211	23.5	9.0	1	1	July	682	632	5.6	3.5
	MEAN	204	21.2	9.7	3	1	Aug	658	591	3.5	3.2
	S.D.	13	1.1				Sept	467	398	3.7	4.0
	C.V.	6	5.1				Oct	167	179	5.0	3.4
	LSD(.05)	22	1.9				Total	2852	2613	21.5	21.0
							% Norm	109		102.0	
							Departure	239		0.4	

Table 8. 2018 Medium Maturity Hybrids, Tioga, Tioga County, Southern Tier NY

Company/Brand	Hybrid	Yield Bu/A	% Moisture			% Stalk		% Root		Planted: May 18 2018	Harvested: Nov 29 2018		
			Mois ture	Y/M Ratio	Stalk Ldg	Root Ldg							
Albert Lea Seed	O.79-00	198	19.8	10.2	7	0	4.3	2.2	86/50				
Local Seed Co.	LC0657 VT2PRIB	224	20.1	11.2	5	0	3.7	1.0	Growing Rainfall				
Doebler's	4318AMXT	243	20.2	12.1	4	0	2.3	1.2	Degree Days (Inches)				
Local Seed Co.	LC0488SSX	215	20.7	10.4	2	0	2.0	1.0	2018 Ave. 2018 Ave.				
Augusta Seed Co.	A5162	245	21.8	11.3	11	0	2.0	1.5	May	397	350	4.6	3.3
Albert Lea Seed	O.48-08GS	226	22.5	10.1	2	0	2.0	1.7	June	448	535	4.1	4.1
Albert Lea Seed	O.55-02	221	22.5	9.9	6	0	3.7	4.0	July	638	639	8.5	3.5
	MEAN	225	21.1	10.7	5	0	2.9	1.8	Aug	648	619	6.6	3.5
	S.D.	23	1.5						Sept	469	421	10.5	3.4
	C.V.	10	7.2						Oct	168	174	4.5	3.4
	LSD(.05)	41	2.7						Total	2768	2737	38.7	21.2
									% Norm	101		182.7	
									Departure	32		17.5	

Table 9. 2018 Medium Maturity Hybrids, Pittsford, Monroe County, Western NY

Company/Brand	Hybrid	Yield Bu/A	%		Y/M Ratio	%		Early Vigor	Stay Grn	Planted: May 24 2018	Harvested: Nov 23 2018			
			Mois ture	Stalk Ldg		Root Ldg	Degree Days				Rainfall (Inches)			
Albert Lea Seed	O.79-00	159	16.3	9.8	6	6	4.0	3.0	86/50					
Doebler's	4318AMXT	201	16.5	12.2	0	3	4.5	2.2	Growing		Rainfall			
Local Seed Co.	LC0657 VT2PRIB	199	17.6	11.3	2	4	3.8	2.8	Degree Days		(Inches)			
Local Seed Co.	LC0488SSX	202	17.7	11.4	2	0	4.0	1.8	2018	Ave.	2018	Ave.		
Albert Lea Seed	O.55-02	203	17.7	11.5	3	1	4.7	2.5	May	481	323	1.7	2.9	
Albert Lea Seed	O.48-08GS	183	17.9	10.2	1	3	4.8	2.3	June	527	508	2.2	3.3	
Augusta Seed Co.	A5162	257	19.8	13.0	1	1	5.0	2.0	July	746	653	3.1	3.3	
									Aug	720	605	2.7	3.5	
		MEAN	201	17.6	11.3	2	3	4.4	2.4	Sept	532	394	2.8	3.4
		S.D.	17	0.5						Oct	184	185	3.9	2.7
		C.V.	9	3.0						Total	3190	2668	16.3	19.1
		LSD(.05)	31	0.9						% Norm	120		85.2	
										Departure	522		-2.8	

Table 10. 2018 Medium Maturity Hybrids, Kingston, Ulster County, Hudson Valley NY

Company/Brand	Hybrid	Yield Bu/A	%		Y/M Ratio	%		Stay Grn	Gray Leaf Spot	Planted: May 25 2018	Harvested: Nov 4 2018			
			Mois ture	Stalk Ldg		Root Ldg	Degree Days				Rainfall (Inches)			
Albert Lea Seed	O.79-00	160	18.2	8.8	20	2	5.0	0.8	86/50					
Local Seed Co.	LC0657 VT2PRIB	201	18.9	10.8	23	1	2.5	0.7	Growing		Rainfall			
Doebler's	4318AMXT	222	19.7	11.3	14	6	2.3	0.8	Degree Days		(Inches)			
Local Seed Co.	LC0488SSX	206	20.4	10.1	2	1	2.0	0.8	2018	Ave.	2018	Ave.		
Albert Lea Seed	O.55-02	193	21.3	9.0	15	7	2.8	3.7	May	437	284	2.2	4.0	
Albert Lea Seed	O.48-08GS	214	21.6	9.9	15	0	2.3	1.3	June	521	449	2.2	4.0	
Augusta Seed Co.	A5162	221	23.3	9.4	33	0	1.8	1.2	July	730	573	9.2	4.4	
									Aug	741	538	6.0	4.1	
		MEAN	202	20.5	9.9	17	2	2.7	1.3	Sept	493	351	9.7	4.1
		S.D.	27	0.9						Oct	199	163	4.2	4.5
		C.V.	13	4.3						Total	3121	2358	33.5	25.1
		LSD(.05)	48	1.6						% Norm	132		133.9	
										Departure	763		8.5	