

Cornell University Cooperative Extension

## 2017 New York Hybrid Corn Grain Performance Trials



Plant Breeding and Genetics 2018-1

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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 2017 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 <u>Cornell Guide for Integrated Field Crop Management</u>.

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,

Margat Estat C.

Margaret E. Smith Extension Leader, Plant Breeding & Genetics

For information on entering hybrids in the 2018 trials, please contact Judy Singer at jls10@cornell.edu or 607-255-5461 or Margaret Smith.

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Building Strong and Vibrant New York Communities

## **2017 Growing Conditions**

The 2017 season in New York again had precipitation extremes, more similar to 2015 than to the dry conditions we had seen in 2016. The 2017 growing season was characterized by unusually high rainfall in early summer, with rains lasting well into the summer months in many areas. Cool temperatures and rainfall in May led to frequent planting delays. Earlier planted acres showed good growth and development, while acres planted after the prolonged rains set in were typically small and stressed. Generally wet conditions prevailed in many areas of the state through July, complicating many field operations. August and September were drier, but with plenty of soil moisture to support the crop. Generally warm conditions in September and October helped the crop to mature well despite the excess moisture. The excessive rains starting in April led to seven New York counties being designated as primary natural disaster areas, and 23 additional contiguous counties also being eligible for natural disaster assistance. These include eight of New York's top 10 corn-producing counties. Despite the excessive rainfall during the early growing season, corn grain yields were excellent. State average yield was reported at 161 bu/A – well above the previous records of 149 bu/A in 2010 and 148 bu/A in 2014. With all the rainfall, one might have expected pressure from fungal leaf blights, but disease pressure was generally low across the state.

#### **Testing Procedures**

Regional test locations for 2017 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 1497651, USDA-NIFA Hatch Project 1497603, 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.

# **2017 Trial Locations**



## 2017 Cooperators

## Early/Medium-early Grain Series

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

## **Medium Grain Series**

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

## 2017 Participating Companies

Company/Brand	Contact for Information	Address & Phone
Albert Lea Seed www.alseed.com	Matt Leavitt matt@alseed.com	1414 W. Main, PO Box 127 Albert Lea, MN 56007 Phone: 800-352-5247
Augusta Seed Corporation www.augustaseed.com	Matt Rawley matt.rawley@augustaseed.com	PO Box 899 Verona, VA 24482 Phone: 540-886-6055
Crop Production Services Dyna-Gro Brand www.cpsagu.com	Tom Barber tom.barber@cpsagu.com	1140 Sweet Road East Aurora, NY 14052 Phone: 716-912-5494
T. A. Seeds www.taseeds.com	Cory Chelko cchelko@taseeds.com	PO Box 300 Avis, PA 17721 Phone: 866-813-SEED (7333)

## 2017 **Entries by Company**

				Genetically	
	Maturity		Relative	Engineered	Seed
Company	Group*	Hybrid	Maturity	Traits**	Treatment**
Albert Lea	2	O.84-95UP	95	None	Cruiser 250
Albert Lea	2	O.88-91UP	91	None	Cruiser 250
Albert Lea	2	74-93P	93	None	Cruiser 250
Albert Lea	2	42-92P	92	None	Cruiser 250
Albert Lea	2	51-95UP	95	None	Cruiser 250
Albert Lea	3	53-01	101	None	Cruiser 250
Albert Lea	3	40-03UP	103	None	Cruiser 250
Albert Lea	3	51-04GS	104	None	Cruiser 250
Albert Lea	3	13-07P	107	None	Cruiser 250
Albert Lea	3	53-12GS	112	None	Cruiser 250
Augusta	1	2036	85	3000GT	Cruiser Maxx 250
Augusta	2	2843	93	3110GT	Cruiser Maxx 250
Augusta	2	3750	100	3110GT	Cruiser Maxx 250
Augusta	2	2345	95	3110GT	Cruiser Maxx 250
Augusta	2	2039	89	3110GT	Cruiser Maxx 250
Augusta	3	4759	109	3110GT	Cruiser Maxx 250
Augusta	3	5162	112	3000GT	Cruiser Maxx 250
Dyna-Gro	2	D32VC41	92	VT2 PRO	VP-Poncho500/Votivo
Dyna-Gro	2	D35SS58	95	SMARTSTAX	VP-Poncho500/Votivo
Dyna-Gro	2	D37VC60	97	VT2PRO	VP-Poncho500/Votivo
Dyna-Gro	2	D39DC43	99	DG/VT2 PRO	VP-Poncho500/Votivo
T. A. Seeds	1	TA387-28RIB	92	SSX	C250
T. A. Seeds	2	TA448-22DPRIB	94	VT2P	C250
T. A. Seeds	3	TA536-22DPRIB	104	SSX	C250
T. A. Seeds	3	TA547-22DPRIB	106	VT2P	C250

\* 1 = Early; 2 = Medium-early; 3 = Medium
\*\* Trait abbreviations and Seed treatments are as provided by each seed company

			%		%	%		
		Yield	Mois	Y/M	Stalk	Root	Early	Stay
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor	Grn
Augusta Seed	2039	226	19.6	11.7	0	1	3.4	2.1
Albert Lea Seed	74-93P	240	20.1	11.9	2	0	3.5	2.3
Augusta Seed	2345	247	20.1	12.3	1	1	3.4	2.2
Albert Lea Seed	0.88-91UP	224	20.2	11.2	1	1	3.2	2.1
Augusta Seed	2036	215	20.4	10.7	0	0	2.8	2.5
Albert Lea Seed	42-92P	229	20.4	11.3	0	0	3.3	2.5
Dyna-Gro	D32VC41	237	20.6	11.7	0	0	3.4	2.3
Dyna-Gro	D37VC60	242	20.9	11.7	1	1	2.9	2.0
Augusta Seed	2843	235	20.9	11.3	0	0	2.9	2.0
T A Seeds	TA387-28RIB	223	21.1	10.7	0	0	3.3	2.4
Albert Lea Seed	51-95UP	221	21.5	10.4	2	0	3.0	2.3
Dyna-Gro	D35SS58	253	21.5	12.0	0	1	3.4	1.8
Albert Lea Seed	0.84-95UP	225	21.8	10.5	1	0	3.3	2.2
T A Seeds	TA448-22DPRIB	236	22.2	10.7	1	0	3.0	2.3
Dyna-Gro	D39DC43	255	23.5	11.0	1	0	3.6	2.1
Augusta Seed	3750	236	23.7	10.0	1	2	3.1	1.8
	MEAN	234	21.2	11.2	0.5	0.7	3.2	2.2
	S.D.	19	1.4					
	C.V.	8.3	6.6					
	LSD(.05)	16	1.1					

## Table 1. 2017 Early/Medium-Early Maturity Hybrids Trial Summary(Chemung, Albion, Madrid, New Hope)

Table 2. 2017 Early/Medium-Early Maturity Hybrids, Chemung, Chemung County, Southern Tier NY

			%		%	%			Gray					
		Yield	Mois	Y/M	Stalk	Root	Early	Stay	Leaf		Plante	ed:	Harves	sted:
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor	Grn	Spot		June 2	2017	Nov 16	2017
Augusta Seed	2039	234	19.0	12.3	1	0	4.0	1.8	3.0		86/50			
Albert Lea Seed	0.88-91UP	242	19.1	12.7	0	0	3.3	2.0	2.0		Growir	ng	Rainfal	1
Augusta Seed	2036	224	19.5	11.5	0	0	3.0	2.3	1.8		Degree	e Days	(Inches	;)
Albert Lea Seed	42-92P	248	19.9	12.5	1	0	4.0	2.2	2.5		2017	Ave.	2017	Ave.
Augusta Seed	2345	259	20.4	12.7	0	0	4.0	2.2	2.2	May	311	350	4.5	3.1
Dyna-Gro	D37VC60	247	20.4	12.1	2	0	3.0	2.0	1.5	June	494	535	3.5	4.2
Albert Lea Seed	74-93P	258	20.7	12.5	0	0	4.0	2.0	1.5	July	660	639	5.0	3.6
Albert Lea Seed	51-95UP	240	21.0	11.5	3	0	3.7	2.3	2.2	Aug	567	619	2.2	3.2
Augusta Seed	2843	246	21.1	11.7	0	0	3.0	1.7	1.8	Sept	444	421	1.1	3.4
T A Seeds	TA387-28RIB	234	21.3	11.0	0	0	4.0	2.3	1.8	Oct	318	174	6.3	3.1
Dyna-Gro	D35SS58	273	22.2	12.3	0	0	4.0	1.5	1.3					
Dyna-Gro	D32VC41	257	22.3	11.6	0	0	4.3	2.2	2.3	Total	2794	2737	22.6	20.7
T A Seeds	TA448-22DPRIB	256	22.6	11.4	0	0	3.3	2.0	2.3	% Norm	102		109	
Albert Lea Seed	0.84-95UP	236	22.9	10.4	1	0	3.7	2.0	2.0	Departure	58		1.9	
Dyna-Gro	D39DC43	265	23.6	11.2	0	0	4.3	2.0	1.0					
Augusta Seed	3750	263	24.2	10.9	1	0	3.3	2.0	2.0					
	MEAN	249	21.2	11.8	0.5	0.0	3.7	2.0	2.0					
	S.D.	14	1.3		2.0	2.10								
	C.V.	5.7	6.2											
	LSD(.05)	23	2.2											

Table 3. 2017 Early/Medium-Early Maturity Hybrids, Albion, Orleans County, Western NY

		Yield	% Mois	Y/M	% Stalk	% Root	Early	Stay		Plante	d:	Harves	sted:
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor	Grn		May 17	7 2017	Nov 92	2017
Augusta Seed	2039	229	18.4	12.5	0	0	3.0	2.2		86/50			
Dyna-Gro	D32VC41	246	18.7	13.2	0	0	2.7	2.8		Growin	ng	Rainfal	1
Albert Lea Seed	74-93P	224	19.0	11.8	1	0	3.0	2.3		Degree	e Days	(Inches	;)
Augusta Seed	2843	244	19.0	12.8	0	0	2.5	2.3		2017	Ave.	2017	Ave.
Albert Lea Seed	0.88-91UP	241	19.0	12.7	0	0	2.8	2.3	May	239	332	6.7	3.0
Augusta Seed	2036	237	19.0	12.5	0	1	2.7	2.7	June	500	523	2.6	3.0
Augusta Seed	2345	231	19.3	12.0	0	0	2.7	2.5	July	626	661	5.3	3.1
Albert Lea Seed	0.84-95UP	253	19.5	13.0	0	0	2.8	2.8	Aug	576	619	3.2	3.1
Dyna-Gro	D35SS58	276	19.6	14.1	0	0	3.0	2.2	Sept	459	420	1.6	3.6
Dyna-Gro	D37VC60	252	19.7	12.8	1	0	2.8	2.3	Oct	291	197	4.9	3.1
T A Seeds	TA387-28RIB	253	19.8	12.8	0	0	3.0	2.8					
Albert Lea Seed	51-95UP	242	20.3	11.9	0	0	2.0	2.7	Total	2690	2752	24.3	18.8
T A Seeds	TA448-22DPRIB	262	20.3	12.9	0	0	2.5	2.5	% Norm	98		129	
Albert Lea Seed	42-92P	252	20.6	12.3	0	0	2.5	2.8	Departure	62		5.5	
Dyna-Gro	D39DC43	294	21.7	13.6	0	0	3.0	2.5					
Augusta Seed	3750	199	23.4	8.5	0	0	2.7	2.2					
	MEAN	246	19.8	12.5	0.1	0.0	2.7	2.5					
	S.D.	21	0.8										
	C.V.	8.5	3.9										
	LSD(.05)	35	1.3										

#### Table 4. 2017 Early/Medium-Early Maturity Hybrids, Madrid, St. Lawrence County, Northern NY

			%		%	%							
		Yield	Mois	Y/M	Stalk	Root	Early	Stay		Plante	ed:	Harve	sted:
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor	Grn		May 1	8 2017	Nov 28	3 2017
Augusta Sood	2020	219	175	125	0	1	4.0	2.2		86/50			
Augusta Seeu	2039	210	17.5	12.5	0	0	4.0	2.2		Crowin		Doinfo	ш
Dyna-Giu		221	17.7	12.0	0	0	4.0	2.2		GIUWI	iy • Devie	Kali lia	11 
Albert Lea Seed	0.88-910P	180	17.9	10.1	3	2	3.7	2.3		Degre	e Days	(inche	5)
Albert Lea Seed	0.84-95UP	187	18.1	10.4	2	0	4.0	2.2		2017	Ave.	2017	Ave.
Dyna-Gro	D35SS58	228	18.1	12.6	1	0	4.0	1.8	May	234	308	5.9	3.0
Dyna-Gro	D37VC60	230	18.3	12.6	0	1	3.7	2.0	June	458	482	5.2	3.5
Albert Lea Seed	51-95UP	185	18.3	10.1	3	0	3.5	2.5	July	583	649	5.5	3.4
Albert Lea Seed	74-93P	220	18.5	11.9	1	0	4.0	2.2	Aug	567	581	3.9	3.6
Albert Lea Seed	42-92P	188	18.5	10.2	0	0	3.8	2.5	Sept	450	354	1.1	3.6
T A Seeds	TA387-28RIB	202	18.6	10.9	0	0	4.0	2.0	Oct	250	154	7.7	3.6
Augusta Seed	2345	263	19.5	13.5	1	0	4.0	2.0					
Dyna-Gro	D39DC43	218	20.3	10.8	2	0	4.0	2.0	Total	2542	2527	29.2	20.7
Augusta Seed	2843	232	20.4	11.4	1	0	3.7	2.0	% Norm	101		141	
T A Seeds	TA448-22DPRIB	182	20.6	9.0	3	0	4.0	2.3	Departure	16		8.5	
Augusta Seed	3750	237	20.8	11.4	0	0	3.8	1.7					
Augusta Seed	2036	203	20.9	9.7	0	0	3.2	2.5					
	MEAN	212	19.0	11.2	1.0	0.2	3.8	2.1					
	S.D.	20	1.4										
	C.V.	9.2	7.2										
	LSD(.05)	32	2.2										

## Table 5. 2017 Early/Medium-Early Maturity Hybrids, New Hope, Cayuga County, Central NY

			%		%	%							
		Yield	Mois	Y/M	Stalk	Root	Early	Stay		Plante	ed:	Harves	sted:
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor	Grn		June 1	2017	Nov 27	7 2017
	00.45	000	04.4		0	0	0.0	0.0		00/50			
Augusta Seed	2345	236	21.4	11.1	2	3	3.0	2.2		86/50		<b>D</b> · /	
Augusta Seed	2036	195	22.0	9.1	1	0	2.3	2.3		Growin	ng	Rainfa	
Albert Lea Seed	74-93P	259	22.4	11.6	5	1	3.0	2.5		Degree	e Days	(Inches	s)
Albert Lea Seed	42-92P	227	22.8	10.0	1	0	3.0	2.5		2017	Ave.	2017	Ave.
Augusta Seed	2843	219	23.2	9.5	1	0	2.3	2.2	May	234	267	4.5	3.6
Augusta Seed	2039	221	23.6	9.5	1	2	2.7	2.2	June	432	446	5.4	4.3
Dyna-Gro	D32VC41	224	23.9	9.4	0	0	2.7	2.0	July	574	574	7.2	4.0
Albert Lea Seed	0.88-91UP	231	24.8	9.3	2	4	3.0	1.8	Aug	510	535	1.8	3.8
T A Seeds	TA387-28RIB	202	24.8	8.2	0	1	2.3	2.3	Sept	369	337	2.1	4.2
Dyna-Gro	D37VC60	237	25.1	9.4	1	3	2.0	1.5	Oct	203	138	5.3	4.0
T A Seeds	TA448-22DPRIB	242	25.4	9.5	1	1	2.0	2.2					
Dyna-Gro	D35SS58	235	26.2	9.0	0	4	2.7	1.5	Total	2320	2159	26.2	23.9
Augusta Seed	3750	246	26.4	9.3	2	7	2.7	1.5	% Norm	107		110	
Albert Lea Seed	51-95UP	218	26.4	8.3	2	1	3.0	1.5	Departure	161		2.3	
Albert Lea Seed	0.84-95UP	223	26.9	8.3	0	0	2.8	1.8					
Dyna-Gro	D39DC43	244	28.5	8.6	0	1	3.0	1.8					
	MEAN	220	24.6	9 <i>4</i>	1 1	17	27	2.0					
	S D	24	2 0	5.7	1.1	1.7	2.1	2.0					
	C V	10.5	2.0										
		20	0.0										
	LSD(.05)	39	3.3										

			%		%	%		
		Yield	Mois	Y/M	Stalk	Root	Early	Stay
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor*	Grn
Albert Lea Seed	53-01	215	22.4	9.2	2	2	3.6	2.5
Albert Lea Seed	40-03UP	207	23.1	8.6	1	1	2.8	2.0
T A Seeds	TA547-22DPRIB	247	23.2	10.0	0	1	3.1	2.3
T A Seeds	TA536-22DPRIB	223	23.8	9.1	0	0	3.2	2.0
Albert Lea Seed	13-07P	237	24.5	8.8	0	0	3.2	2.3
Albert Lea Seed	51-04GS	230	24.6	8.7	5	2	3.3	2.4
Albert Lea Seed	53-12GS	258	26.4	9.0	0	3	2.9	2.3
Augusta Seed	4759	234	26.5	8.3	1	6	3.3	2.0
Augusta Seed	5162	236	27.5	7.7	0	3	2.8	2.2
	MEAN	232	24.7	8.8	1.1	2.0	3.1	2.2
	S.D.	19	1.0					
	C.V.	8.3	4.1					
	LSD(.05)	16	.8					

## Table 6. 2017 Medium Maturity Hybrids Trial Summary(Chemung, Kingston, Pittsford, Aurora)

\* 3 location data

Table 7. 2017 Medium Maturity Hybrids, Chemung, Chemung County, Southern Tier NY

			%		%	%			Gray					
		Yield	Mois	Y/M	Stalk	Root	Early	Stay	Leaf		Plante	d:	Harves	sted:
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor	Grn	Spot		June 2	2017	Nov 16	2017
Albert Lea Seed	53-01	230	24.9	9.3	1	0	3.7	2.0	2.0		86/50			
Albert Lea Seed	40-03UP	213	26.1	8.2	1	1	2.8	1.7	2.2		Growir	ng	Rainfal	I
T A Seeds	TA536-22DPRIB	229	26.6	8.7	0	0	3.3	1.3	2.0		Degree	e Days	(Inches	;)
T A Seeds	TA547-22DPRIB	247	27.9	8.9	1	0	3.0	1.7	2.0		2017	Ave.	2017	Ave.
Albert Lea Seed	51-04GS	245	28.1	8.7	0	0	3.0	1.7	1.8	May	311	350	4.5	3.1
Albert Lea Seed	13-07P	214	28.1	7.6	1	0	3.2	1.5	2.2	June	494	535	3.5	4.2
Augusta Seed	4759	243	29.9	8.1	0	0	2.8	1.5	2.0	July	660	639	5.0	3.6
Albert Lea Seed	53-12GS	260	30.5	8.5	0	0	2.8	1.3	1.7	Aug	567	619	2.2	3.2
Augusta Seed	5162	224	32.4	6.9	0	0	2.7	1.3	2.2	Sept	444	421	1.1	3.4
										Oct	318	174	6.3	3.1
	MEAN	234	28.3	8.3	0.2	0.1	3.0	1.6	2.0					
	S.D.	14	1.3							Total	2794	2737	22.6	20.7
	C.V.	5.8	4.7							% Norm	102		109	
	LSD(.05)	23	2.2							Departure	58		1.9	

Table 8. 2017 Medium Maturity Hybrids, Kingston, Ulster County, Hudson Valley NY

			%		%	%							
		Yield	Mois	Y/M	Stalk	Root	Early	Stay		Plante	d:	Harves	ted:
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor	Grn		May 20	2017	Nov 8 2	2017
Albert Lea Seed	53-01	216	18.5	11.7	1	2	3.7	2.5		86/50			
T A Seeds	TA547-22DPRIB	245	18.5	13.3	0	1	3.0	2.5		Growin	ng	Rainfal	
Albert Lea Seed	40-03UP	214	19.5	11.0	0	0	2.8	2.0		Degree Days		(Inches)	
T A Seeds	TA536-22DPRIB	224	20.5	10.9	0	0	3.7	2.2		2017	Ave.	2017	Ave.
Albert Lea Seed	13-07P	261	20.6	12.7	1	0	3.2	2.2	May	248	284	5.2	4.0
Albert Lea Seed	51-04GS	250	21.3	11.7	4	0	3.5	2.3	June	477	449	3.9	4.0
Augusta Seed	4759	256	22.3	11.5	1	0	3.7	2.0	July	625	573	3.7	4.4
Augusta Seed	5162	263	23.1	11.5	0	0	2.6	2.0	Aug	537	538	3.0	4.1
Albert Lea Seed	53-12GS	295	23.5	12.6	0	0	2.8	2.0	Sept	458	351	2.2	4.1
									Oct	300	163	4.4	4.5
	MEAN	247	20.8	11.9	0.8	0.2	3.2	2.2					
	S.D.	16	1.0						Total	2645	2358	22.3	25.1
	C.V.	6.6	4.8						% Norm	112		89	
	LSD(.05)	28	1.7						Departure	287		-2.8	

#### Table 9. 2017 Medium Maturity Hybrids, Pittsford, Monroe County, Western NY

			%		%	%							
		Yield	Mois	Y/M	Stalk	Root	Early	Stay		Plante	d:	Harve	sted:
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor	Grn		June 3	2017	Nov 2'	1 2017
Albert Lea Seed	53-01	212	27.2	7.8	6	6	4.8	1.7		86/50			
Albert Lea Seed	51-04GS	251	27.8	9.0	0	6	5.0	2.0		Growir	ıg	Rainfa	.11
Albert Lea Seed	40-03UP	204	28.0	7.3	1	3	4.0	1.5		Degree	e Days	(Inche	s)
T A Seeds	TA547-22DPRIB	267	28.7	9.3	0	5	4.7	1.8		2017	Ave.	2017	Ave.
T A Seeds	TA536-22DPRIB	224	28.9	7.8	1	2	4.3	1.2	May	290	323	5.3	2.9
Albert Lea Seed	53-12GS	252	29.5	8.6	0	8	4.7	1.8	June	535	508	3.5	3.3
Albert Lea Seed	13-07P	259	30.0	8.6	0	1	4.8	2.0	July	661	653	4.3	3.3
Augusta Seed	5162	246	30.6	8.1	0	3	4.5	1.5	Aug	584	605	3.2	3.5
Augusta Seed	4759	228	32.2	7.1	0	12	5.0	1.2	Sept	482	394	1.3	3.4
									Oct	323	185	6.7	2.7
	MEAN	238	29.2	8.2	0.8	5.1	4.6	1.6					
	S.D.	23	0.8						Total	2875	2668	24.3	19.1
	C.V.	10.0	2.7						% Norm	108		127	
	LSD(.05)	40	1.3						Departure	207		5.2	

## Table 10. 2017 Medium Maturity Hybrids, Aurora, Cayuga County, Central NY

			%		%	%						
		Yield	Mois	Y/M	Stalk	Root	Stay		Plante	d:	Harve	sted:
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Grn		May 24	2017	Nov 17	2017
T A Seeds	TA547-22DPRIB	227	17.8	12.8	1	0	2.7		86/50			
Albert Lea Seed	40-03UP	197	18.8	10.5	2	0	2.5		Growin	g	Rainfa	11
Albert Lea Seed	53-01	201	19.0	10.6	0	0	3.2		Degree	e Days	(Inche	s)
Albert Lea Seed	13-07P	213	19.1	11.1	1	0	2.8		2017	Ave.	2017	Ave.
T A Seeds	TA536-22DPRIB	216	19.3	11.2	1	0	2.7	May	257	315	5.2	3.2
Albert Lea Seed	51-04GS	175	21.3	8.2	15	0	2.8	June	481	498	3.8	3.8
Augusta Seed	4759	210	21.5	9.8	2	12	2.8	July	614	632	7.3	3.5
Albert Lea Seed	53-12GS	225	21.9	10.3	1	3	3.2	Aug	548	591	1.5	3.2
Augusta Seed	5162	211	23.9	8.9	1	10	3.2	Sept	428	398	2.6	4.0
								Oct	300	179	6.0	3.4
	MEAN	208	20.3	10.4	2.5	2.8	2.9					
	S.D.	25	1.0					Total	2628	2613	26.4	21.0
	C.V.	11.8	5.1					% Norm	101		126	
	LSD(.05)	42	1.8					Departure	15		5.4	