

Cornell University
Cooperative Extension

2009 New York Hybrid Corn Grain Performance Trials



Plant Breeding and Genetics 2010-1



Cornell University
Cooperative Extension

Margaret E. Smith
Professor

Phone: 607-255-1654
Fax: 607-255-6683
Email: mes25@cornell.edu

Department of Plant Breeding & Genetics
College of Agriculture & Life Sciences
G42 Emerson Hall
Ithaca, NY 14853-1901

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

This report includes a summary of our 2009 commercial hybrid corn grain trials. It shows results from ten locations in New York, divided into the following three maturity ranges:

	Base 50 Growing Degree Days	Relative Maturity
Early	1400-1900 GDD	70-90 Days
Medium Early	1900-2500 GDD	85-105 Days
Medium	2300-2700 GDD	100-115 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
Department Extension Leader

For information on entering hybrids in the 2010 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

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2009 Growing Conditions

This felt like the year we had no summer. Temperatures were generally low during the growing season and much of the state was wetter than normal. May, August and November were the redeeming months, with above normal temperatures in most locations (but not high enough to bring the season averages up to normal). Despite the weather, aside from bear damage in Kingston and severe gray leaf spot in Chemung, our plots fared quite well this year.

May had enough heat and plenty of moisture to get the corn crop off to a good start. June was cool across the state, and most locations were normal to above normal in precipitation. The North Country was the exception, with rainfall totals in this region a bit below long-term averages. July was cool and distinctly wet except for a few central and south-central NY locations with more typical rainfall totals. August was warmer and a few locations saw lots of rainfall (over 6 inches during August in New Hope and Kingston!) while others were decidedly dry (rainfall was over an inch below normal in Chazy, Sackets Harbor, Pittsford, and Avon). September was a bit cooler and dryer than normal at most sites. As harvest season approached in October, conditions continued to be cool and wet. This slowed grain maturation and dry-down, and thus delayed harvest operations, with snow in mid-October further complicating the situation. November brought some warmer temperatures that finally pushed grain dry-down and harvest along. State average yields were very good (134 bu/acre), however much corn is still standing around the state.

Corn hybrids were generally very healthy and tall due to ample rain and timely warmth. However, all the moisture also brought significant disease pressure. In many locations we saw a mix of different leaf diseases. Our Chemung location experienced severe grey leaf spot pressure in early September. Grey leaf spot was also significant in Kingston. Insect pressure from European corn borer was quite limited.

Testing Procedures

Regional test locations for 2009 are shown on page -iii-. Tests were planted in 1/500 acre plots with three replications per location. All sites except Chazy were machine planted and combine harvested. Plot grain weights and grain moisture percentages were measured electronically on the combine. Grain yields were adjusted to 15.5% moisture for computation and comparison.

Yield Moisture Ratio

We have included a yield to moisture ratio (**Y/M Ratio**), which is the grain yield in bu/A divided by the percentage grain moisture. 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.

Standability Ratings

We have again used two methods for reporting standability, both assessed at the time of grain harvest. The first method is the "hand push" (**Stndability**) rating system. The stalks are pushed, by hand, and resistance to pushing and breaking is rated on a scale of 1-9. A rating of 9 indicates that stalks have strong resistance against breakage when pushed. Lower ratings indicate less resistance to pushing and more down plants. The second method is based on an actual count of stalks broken (or lodged) below the ear and is expressed as a proportion of the total number of plants in the plot (**% Stalk Ldg**).

Early Vigor, Plant Height, Staygreen, and Gray Leaf Spot and Anthracnose Leaf Blight Ratings

At some locations, we collected data on early vigor, plant height, staygreen, and/or leaf disease severity. These data are all based on rating scales. Early vigor was evaluated at knee-high stage or a bit earlier, with 6 = excellent vigor and 0 = very poor vigor. Plant height (**Plnt Ht**) was assessed after flowering, with 8 = vigorous tall plants and 1 = short plants. Staygreen (**Stay Grn**) is a measure of how much green leaf area remains on plants in late September or early October; 5 = completely dry plants and 1 = completely green plants. Gray leaf spot (**Czm**) (caused by *Cercospora zea-maydis*) and anthracnose leaf blight (**Cg**) (caused by *Colletotrichum graminicola*) each were prevalent at one or more sites, and severity was rated with 5 = completely susceptible (lots of disease on many leaves) and 1 = very resistant (little or no disease).

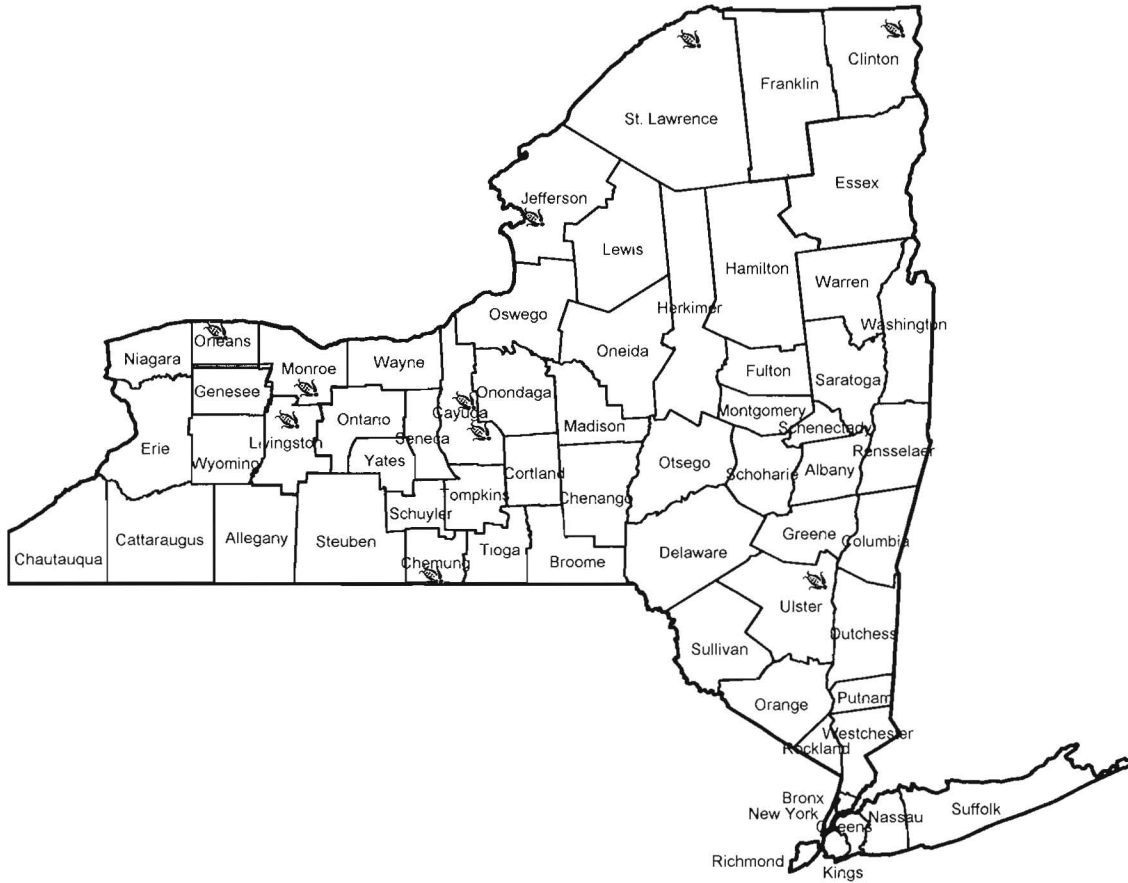
CV, LSD, SD

We use three statistics to evaluate the quality of the data from these experiments. The **CV** (coefficient of variation) is a measure of the amount of uncontrolled variability due to differences in the soil, weather, fertility, etc. Grain yield CVs below 12 are excellent; those under 15 are acceptable. The **LSD** (least significant difference) is computed at the 5% level of probability. This indicates that if a difference between two hybrids is larger than the listed LSD, 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/A grain yield difference sufficient to guide a decision in choice of hybrid. The **SD** (standard deviation) 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.

**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.

2009 Trial Locations



**2009
Cooperators**

Early Grain Series

Cornell Cooperative Extension			
County	Local Contact	Cooperator	Location
Orleans	Mike Stanyard	Hugh Dudley	Albion
Clinton	CCE – Clinton County	Mike Davis	Chazy
St. Lawrence	CCE – St. Lawrence County	Jon Greenwood	Madrid
Cayuga	Brian Aldrich	Steve Nemeč	New Hope

Medium Early Grain Series

Cornell Cooperative Extension			
County	Local Contact	Cooperator	Location
Orleans	Mike Stanyard	Hugh Dudley	Albion
Chemung	Janice Degni	Dudley French	Chemung
Cayuga	Brian Aldrich	Willet Dairy	Lansing
Cayuga	Brian Aldrich	Steve Nemeč	New Hope
Jefferson	Mike Hunter	Ron Robbins	Sackets Harbor

Medium Grain Series

Cornell Cooperative Extension			
County	Local Contact	Cooperator	Location
Livingston	Mike Stanyard	Stokoe Farms	Avon
Chemung	Janice Degni	Dudley French	Chemung
Ulster	CCE-Ulster County	Joe Hasbrouck	Kingston
Monroe	Mike Stanyard	Mark Greene	Pittsford

**Participating Companies
2009 Commercial Hybrid Corn Field Trials**

Company/Brand	Contact for Information	Address & Phone
Albert Lea Seed House Viking Brand	Brian White brian@alseed.com	1414 West Main Street Albert Lea, MN 56007 Phone: 507-373-3161 Fax: 507-373-7032
Crop Production Service Dyna-Gro Brand	Tom Barber tom.barber@UAP.com	1140 Sweet Road East Aurora, NY 14052 Phone: 716-912-5494 Fax: 716-652-1614
Doebler's PA Hybrids, Inc	Jann Yontz jyontz@doeblers.com	202 Tiadaghton Avenue Jersey Shore, PA 17740 Phone: 570-753-3210 Fax: 570-753-5302
Growmark FS	Mark Guttendorf mguttendorf@growmarkfs.com	308 N.E. Front Street Milford, DE 19963 Phone: 607-842-6330 Fax: call first
Hyland Seeds	Ryan Snobelen rsnobelen@hylandseeds.com	1015 North 51 st Street, Suite E Grand Forks, ND 58203 Phone: 800-265-7403 Fax: 519-676-5674
Long Island Cauliflower Association, Inc	Carl Key c.key@licassoc.com	139 Marcy Avenue Riverhead, NY 11901 Phone: 631-727-2212 Fax: 631-727-4295
Monsanto DEKALB Brand	Diane Freeman diane.freeman@monsanto.com	800 N. Lindbergh Blvd. St. Louis, MO 63167 Phone: 815-754-4809 Fax: 815-754-4814
T A Seeds	Taylor Doebler III taylor@taseeds.com	PO Box 300 Avis, PA 17721 Phone: 570-753-5503 Fax: 570-753-4445

**Table 1. 2009 Early Maturity Hybrids Trial Summary
(New Hope, Albion, Chazy, Madrid)**

Brand	Hybrid	% Yield		Y/M Ratio	Std ability*	% Stalk		Early Vigor*	Plnt Ht*
		Bu/A	Mois ture			Ldg	Vigor*		
Growmark FS	3968VT3	190	25.4	7.5	8.6	2	4.0	5.6	
Hyland	HL CVR48	191	25.5	7.5	8.3	4	3.4	5.7	
Cornell	EX9101	185	25.5	7.3	8.1	6	3.5	5.8	
T A Seeds	TA290-11	200	25.9	7.7	8.4	1	4.2	4.4	
Hyland	HL CVR44	180	26.2	6.9	8.6	2	3.8	4.0	
Growmark FS	3989VT3	216	26.6	8.1	8.8	4	3.9	4.8	
Hyland	HL R230	195	26.9	7.2	8.3	2	3.6	4.9	
Dekalb	DKC40-20(VT3)	200	27.0	7.4	8.7	3	2.6	4.6	
T A Seeds	TA370-11	212	27.3	7.8	7.9	5	2.4	4.9	
Hyland	HL CVR34	179	27.4	6.5	8.9	1	3.0	4.7	
Dekalb	DKC38-89(VT3)	191	27.8	6.9	8.6	4	4.3	4.2	
Doebler's	362GR	218	28.8	7.6	8.7	2	2.7	5.1	
Growmark FS	4373VT3	205	29.3	7.0	8.9	3	4.3	5.4	
	Mean	197	26.9	7.3	8.5	3	3.5	4.9	
	CV	7	3.5		4.6				
	LSD	11	0.7		0.4				
	SD	14	0.9		0.4				

* 3 locations only

Table 2. 2009 Early Maturity Hybrids, New Hope, Cayuga County, Central NY

Brand	Hybrid	Yield Bu/A	% Moisture	Y/M Ratio	Std ability	% Stalk Ldg	Early Vigor	Plnt Ht	Planted:		Harvested:		
									May 4 2009		Nov 13 2009		
Hyland	HL CVR44	190	20.7	9.2	8.0	1	4.5	4.0	85/50				
Hyland	HL CVR48	189	20.8	9.1	8.3	1	4.0	6.0	Growing		Rainfall		
Cornell	EX9101	201	21.2	9.5	8.0	2	4.2	6.0	Degree Days		(Inches)		
Growmark FS	3968VT3	204	21.4	9.5	9.0	0	4.8	5.5	2009	Ave.	2009	Ave.	
Growmark FS	3989VT3	210	21.6	9.7	9.0	0	4.5	5.0	May	304	280	5.6	3.3
T A Seeds	TA290-11	205	21.7	9.4	9.0	0	5.0	4.5	June	408	478	4.6	4.6
Dekalb	DKC40-20(VT3)	211	21.9	9.6	8.7	1	3.3	5.0	July	490	584	2.5	3.9
Hyland	HL R230	199	22.0	9.0	8.3	2	4.5	5.0	Aug	582	571	6.4	3.6
Hyland	HL CVR34	199	22.9	8.7	9.0	0	3.0	4.5	Sept	338	389	3.7	4.4
T A Seeds	TA370-11	201	22.9	8.8	7.7	1	2.5	5.5	Oct	117	168	3.5	3.5
Dekalb	DKC38-89(VT3)	202	22.9	8.8	8.7	1	4.5	4.0					
Growmark FS	4373VT3	209	24.6	8.5	8.7	2	5.0	5.0	Total	2239	2471	26.1	23.3
Doebler's	362GR	206	25.6	8.0	8.7	0	3.0	5.3	% Norm	91		112.1	
									Departure	-232		2.8	
	Test Mean	202	22.3	9.1	8.5	1	4.1	5.0					
	CV	4	2.7		4.9								
	LSD	15	1.0		0.7								
	SD	9	0.6		0.4								

Table 3. 2009 Early Maturity Hybrids, Albion, Orleans County, Western NY

Brand	Hybrid	Yield Bu/A	% Moisture	Y/M Ratio	Std ability	% Stalk Ldg	Early Vigor	Plnt Ht	Planted:		Harvested:		
									May 6 2009		Nov 2 2009		
T A Seeds	TA290-11	200	22.1	9.0	8.0	1	4.0	4.7	85/50				
Growmark FS	3968VT3	212	22.1	9.6	8.3	1	3.8	6.0	Growing		Rainfall		
Hyland	HL CVR44	194	22.6	8.6	8.7	1	4.0	4.0	Degree Days		(Inches)		
Hyland	HL CVR34	210	23.2	9.1	9.0	0	3.0	5.0	2009	Ave.	2009	Ave.	
Cornell	EX9101	178	23.2	7.7	7.7	2	3.7	6.0	May	355	332	2.3	3.0
Dekalb	DKC38-89(VT3)	210	23.6	8.9	8.3	2	4.3	4.5	June	438	523	3.6	3.6
Dekalb	DKC40-20(VT3)	197	23.7	8.3	9.0	0	1.8	4.7	July	550	666	5.6	2.6
Hyland	HL R230	214	24.1	8.9	8.7	1	3.7	5.3	Aug	618	619	3.1	3.2
Hyland	HL CVR48	228	24.1	9.5	8.7	1	3.7	6.0	Sept	383	420	2.1	3.7
T A Seeds	TA370-11	220	24.3	9.1	8.0	1	2.8	5.0	Oct	106	197	2.6	2.8
Growmark FS	3989VT3	209	24.3	8.6	9.0	0	4.0	4.7					
Growmark FS	4373VT3	218	25.8	8.4	9.0	0	4.3	6.0	Total	2450	2757	19.3	18.8
Doebler's	362GR	236	27.2	8.7	9.0	0	2.7	5.3	% Norm	89		102.4	
									Departure	-307		0.4	
	Mean	210	23.9	8.8	8.6	1	3.5	5.2					
	CV	6	4.1		4.6								
	LSD	22	1.6		0.7								
	SD	13	1.0		0.4								

Table 4. 2009 Early Maturity Hybrids, Chazy, Clinton County, Northern NY

Brand	Hybrid	Yield Bu/A	% Moisture	Y/M Ratio	% Stalk Ldg	Planted:		Harvested:	
						May 13 2009	Nov 2 2009	May 13 2009	Nov 2 2009
Hyland	HL CVR48	160	32.2	5.0	12	85/50			
Cornell	EX9101	158	32.2	4.9	16	Growing		Rainfall	
T A Seeds	TA290-11	186	32.5	5.7	5	Degree Days		(Inches)	
Growmark FS	3968VT3	157	32.9	4.8	6	2009	Ave.	2009	Ave.
Hyland	HL CVR44	171	33.3	5.1	7	May	281	310	3.2 2.9
Doebler's	362GR	217	33.5	6.5	8	June	471	472	2.5 3.2
Dekalb	DKC40-20(VT3)	192	34.1	5.6	6	July	591	606	3.8 3.6
Hyland	HL R230	189	34.2	5.5	6	Aug	641	549	2.3 3.9
Growmark FS	3989VT3	229	34.3	6.7	14	Sept	309	329	2.6 3.4
T A Seeds	TA370-11	205	34.5	5.9	15	Oct	48	133	2.2 2.9
Hyland	HL CVR34	144	35.1	4.1	2				
Growmark FS	4373VT3	191	36.8	5.2	8	Total	2341	2400	16.6 19.8
Dekalb	DKC38-89(VT3)	179	37.2	4.8	13	% Norm	98		83.8
	Mean	183	34.1	5.4	9	Departure	-59		-3.2
	CV	7	2.7						
	LSD	20	1.5						
	SD	12	0.9						

Table 5. 2009 Early Maturity Hybrids, Madrid, St. Lawrence County, Northern NY

Brand	Hybrid	Yield Bu/A	% Moisture	Y/M Ratio	Std ability	% Stalk Ldg	Early Vigor	Plnt Ht	Planted:		Harvested:	
									May 5 2009	Nov 11-12 2009	May 5 2009	Nov 11-12 2009
Hyland	HL CVR48	187	24.9	7.5	8.0	1	2.7	5.0	85/50			
Growmark FS	3968VT3	188	25.1	7.5	8.3	1	3.3	5.3	Growing		Rainfall	
Cornell	EX9101	203	25.4	8.0	8.7	2	2.7	5.3	Degree Days		(Inches)	
Growmark FS	3989VT3	216	26.2	8.2	8.3	3	3.3	4.7	2009	Ave.	2009	Ave.
Hyland	HL R230	179	27.1	6.6	8.0	1	2.7	4.3	May	260	282	4.1 3.1
T A Seeds	TA290-11	209	27.3	7.7	8.3	0	3.7	4.0	June	398	450	1.6 3.3
T A Seeds	TA370-11	221	27.3	8.1	8.0	1	2.0	4.3	July	517	587	5.6 3.6
Dekalb	DKC38-89(VT3)	173	27.7	6.2	8.7	0	4.0	4.0	Aug	565	534	5.1 4.1
Hyland	HL CVR44	167	28.3	5.9	9.0	0	3.0	4.0	Sept	293	325	3.3 4.3
Hyland	HL CVR34	161	28.4	5.7	8.7	1	3.0	4.7	Oct	77	140	3.3 3.3
Dekalb	DKC40-20(VT3)	199	28.5	7.0	8.3	3	2.7	4.0				
Doebler's	362GR	213	28.9	7.4	8.3	1	2.3	4.7	Total	2110	2318	22.9 21.6
Growmark FS	4373VT3	203	30.0	6.8	9.0	0	3.7	5.3	% Norm	91		106.1
	Mean	194	27.3	7.1	8.4	1	3.0	4.6	Departure	-208.2		1.3
	CV	10	4.1		4.4							
	LSD	33	1.9		0.6							
	SD	20	1.1		0.4							

**Table 6. 2009 Medium Early Maturity Hybrids Trial Summary
(Sackets Harbor, Albion, Lansing, Chemung, New Hope)**

Brand	Hybrid	% Yield		Y/M Ratio	Std ability	% Stalk		Early Vigor*	Plnt Ht*
		Bu/A	Mois ture			Ldg			
T A Seeds	TA451-11	196	22.9	8.6	8.1	3	3.2	4.6	
Hyland	HL CVR54	216	23.5	9.2	8.0	3	3.7	4.4	
T A Seeds	TA510-11	209	23.7	8.8	7.9	1	2.6	4.9	
Dyna-Gro	54V78	217	24.4	8.9	8.3	2	3.0	4.8	
Growmark FS	4465VT3	208	24.4	8.5	8.4	1	3.4	4.3	
LICA	1889V/RR/BT	187	24.6	7.6	8.4	1	3.2	6.1	
Dyna-Gro	55V18	199	24.9	8.0	7.9	1	3.3	4.8	
Hyland	HL CVR64	206	25.1	8.2	8.7	0	3.5	5.5	
Growmark FS	5099VT3	194	25.4	7.6	8.0	2	3.3	4.8	
Dekalb	DKC50-44(VT3)	207	25.4	8.1	8.2	2	3.3	4.8	
Growmark FS	4861VT3	204	25.5	8.0	8.1	2	3.5	3.7	
Viking	0.671	212	25.6	8.3	8.6	2	3.8	5.9	
Doebler's	RPM515HXR	210	25.7	8.2	8.6	1	2.9	5.3	
Dyna-Gro	V3883VT3	217	25.7	8.4	8.3	1	3.5	3.5	
Hyland	HL R265	220	27.0	8.1	8.6	1	3.3	4.5	
Growmark FS	5595VT3	229	27.1	8.5	8.5	1	2.9	5.4	
Hyland	HL B49R	207	27.3	7.6	8.7	0	3.5	5.2	
LICA	1900F/RR/HX	223	27.7	8.1	8.5	1	3.1	5.5	
Growmark FS	5484VT3	215	27.7	7.8	8.7	0	3.1	6.2	
Hyland	HL CVR74	210	27.8	7.6	8.4	1	2.9	4.3	
T A Seeds	TA500-16	193	28.8	6.7	8.9	0	3.5	5.3	
LICA	1900FRR/HXT	206	29.3	7.0	8.9	0	3.3	5.1	
	Mean	208	25.9	8.1	8.4	1	3.3	5.0	
	CV	8	5.9		5.9				
	LSD	11	1.1		0.4				
	SD	16	1.5		0.5				

*4 locs only

Table 7. 2009 Medium Early Maturity Hybrids, Sackets Harbor, Jefferson County, Northern NY

Brand	Hybrid	Yield Bu/A	% Moisture	Y/M Ratio	Std ability	% Stalk Ldg	Stay Grn	Plnt Ht	Planted:		Harvested:	
									May 26 2009	Nov 17 2009	May 26 2009	Nov 17 2009
T A Seeds	TA451-11	200	20.0	10.0	7.3	1	2.3	3.3	85/50			
T A Seeds	TA510-11	207	20.4	10.1	7.3	2	2.3	4.3	Growing	Rainfall		
Growmark FS	4465VT3	205	20.4	10.0	7.7	2	2.3	3.0	Degree Days	(Inches)		
Hyland	HL CVR54	211	20.8	10.1	8.0	2	2.2	3.3	2009	Ave.	2009	Ave.
Hyland	HL CVR64	194	21.1	9.2	8.3	0	1.5	5.0	May	253	274	4.98 2.9
LICA	1889V/RR/BT	187	22.4	8.3	8.3	3	2.7	6.0	June	394	439	1.24 2.8
Viking	0.671	207	22.4	9.2	8.7	1	1.7	5.3	July	522	589	3.46 2.5
Growmark FS	4861VT3	216	22.8	9.5	8.0	1	2.0	2.3	Aug	588	546	1.89 3.1
Dyna-Gro	55V18	182	23.4	7.8	7.7	0	2.7	4.0	Sept	345	346	1.92 3.9
Dyna-Gro	54V78	210	23.8	8.8	7.7	0	2.0	3.7	Oct	101	152	4.10 3.1
Hyland	HL R265	214	23.9	9.0	9.0	1	1.5	3.7				
Dyna-Gro	V3883VT3	212	24.2	8.8	9.0	0	2.3	2.0	Total	2203	2346	17.6 18.3
Doebler's	RPM515HXR	210	24.4	8.6	8.0	3	1.0	4.3	% Norm	94		96.1
Hyland	HL B49R	198	25.0	7.9	8.3	0	0.8	3.3	Departure	-143		-0.7
Dekalb	DKC50-44(VT3)	200	25.0	8.0	8.0	1	1.2	3.0				
Growmark FS	5099VT3	198	25.3	7.8	8.0	1	1.2	3.7				
Growmark FS	5595VT3	212	25.5	8.3	8.0	0	1.5	4.7				
LICA	1900F/RR/HX	220	26.0	8.5	8.0	1	1.0	5.3				
Hyland	HL CVR74	205	26.3	7.8	7.7	2	1.0	3.0				
T A Seeds	TA500-16	186	27.0	6.9	8.7	1	1.0	4.3				
Growmark FS	5484VT3	197	28.1	7.0	8.3	0	1.0	6.0				
LICA	1900FRR/HXT	200	28.4	7.0	8.7	1	1.3	4.7				
	Mean	203	23.9	8.6	8.1	1	1.7	4.0				
	CV	6	5.0		6.6							
	LSD	20	2.0		0.9							
	SD	12	1.2		0.5							

Table 8. 2009 Medium Early Maturity Hybrids, Albion, Orleans County, Western NY

Brand	Hybrid	Yield Bu/A	% Moisture	Y/M Ratio	Std ability	% Stalk Ldg	Early Vigor	Plnt Ht	Planted: May 6 2009		Harvested: Nov 2 2009		
									85/50 Growing Degree Days	Ave.	Rainfall (Inches)	Ave.	
T A Seeds	TA451-11	200	25.8	7.8	9.0	0	1.7	5.0	85/50				
Dyna-Gro	54V78	245	26.9	9.1	8.7	1	3.3	5.0	85/50				
T A Seeds	TA510-11	224	27.5	8.1	8.7	0	2.7	4.7	85/50				
Hyland	HL CVR54	234	27.7	8.4	8.3	1	4.2	5.0	85/50				
Dyna-Gro	55V18	215	28.1	7.7	8.0	1	3.0	5.0	May	355	332	2.3	3.0
Dekalb	DKC50-44(VT3)	227	28.6	7.9	8.3	2	3.2	5.0	June	438	523	3.6	3.6
Viking	0.671	217	28.7	7.6	9.0	1	2.7	5.3	July	550	666	5.6	2.6
LICA	1889V/RR/BT	202	28.9	7.0	8.7	1	2.5	5.0	Aug	618	619	3.1	3.2
Hyland	HL CVR64	226	29.1	7.8	9.0	0	3.3	5.3	Sept	383	420	2.1	3.7
Growmark FS	5099VT3	216	29.2	7.4	8.7	0	2.8	5.0	Oct	106	197	2.6	2.8
Growmark FS	4465VT3	202	29.6	6.8	8.7	1	2.7	5.0					
Dyna-Gro	V3883VT3	243	29.7	8.2	7.7	2	3.3	4.3	Total	2450	2757	19.3	18.8
Hyland	HL R265	232	30.0	7.7	8.7	1	2.8	5.0	% Norm	89		102.4	
Hyland	HL B49R	211	30.0	7.0	9.0	0	3.7	5.3	Departure	-307		0.4	
Growmark FS	5484VT3	248	30.4	8.2	9.0	0	2.7	6.0					
Doebler's	RPM515HXR	222	30.5	7.3	9.0	0	2.3	5.7					
Growmark FS	4861VT3	224	30.7	7.3	9.0	0	3.2	4.3					
T A Seeds	TA500-16	201	30.9	6.5	9.0	0	2.8	5.7					
LICA	1900F/RR/HX	215	31.1	6.9	8.7	1	2.3	4.8					
Growmark FS	5595VT3	230	31.1	7.4	8.7	0	2.8	5.3					
Hyland	HL CVR74	215	32.1	6.7	8.7	1	2.2	4.3					
LICA	1900FRR/HXT	212	32.1	6.6	9.0	0	2.0	5.0					
	Mean	221	29.5	7.5	8.7	1	2.8	5.0					
	CV	7	5.1		5.1								
	LSD	26	2.5		0.7								
	SD	16	1.5		0.4								

Table 9. 2009 Medium Early Maturity Hybrids, Lansing, Cayuga County, Central NY

Brand	Hybrid	Yield Bu/A	% Mois ture	Y/M Ratio	Std abil ity	% Stalk Ldg	Early Vigor	Plnt Ht	Planted:		Harvested:		
									May 13 2009	Nov 18 2009	May 13 2009	Nov 18 2009	
Dyna-Gro	54V78	241	22.7	10.6	8.7	0	3.7	5.5	85/50				
Growmark FS	4465VT3	227	23.1	9.8	8.7	1	4.3	4.7	Growing Rainfall				
T A Seeds	TA451-11	223	23.2	9.6	9.0	0	2.5	4.7	Degree Days (Inches)				
T A Seeds	TA510-11	237	23.6	10.0	8.0	0	2.7	5.3	2009	Ave.	2009	Ave.	
Dyna-Gro	V3883VT3	234	24.0	9.8	8.7	0	4.0	3.8	May	330	315	3.8	3.2
Hyland	HL CVR54	233	24.1	9.7	8.0	1	3.7	4.7	June	454	498	4.8	4.1
Hyland	HL CVR64	228	24.8	9.2	9.0	0	4.5	6.0	July	555	632	2.4	3.3
Dyna-Gro	55V18	224	24.9	9.0	8.7	0	3.5	4.7	Aug	642	591	3.6	3.6
Viking	0.671	226	25.1	9.0	8.7	1	3.5	7.0	Sept	364	389	2.6	4.2
Growmark FS	5099VT3	215	25.2	8.5	8.3	0	3.5	5.0	Oct	105	179	3.3	3.2
Growmark FS	5595VT3	264	25.2	10.5	8.7	1	3.8	6.3					
Doebler's	RPM515HXR	240	25.3	9.5	8.7	0	3.7	5.8	Total	2450	2603	20.5	21.6
LICA	1889V/RR/BT	207	25.3	8.2	8.7	0	1.9	7.3	% Norm	94		95.0	
Growmark FS	4861VT3	216	25.6	8.4	8.0	1	3.3	4.2	Departure	-153		-1.1	
Dekalb	DKC50-44(VT3)	226	25.7	8.8	8.7	0	2.9	5.8					
Hyland	HL R265	236	26.2	9.0	8.7	1	2.8	4.2					
Growmark FS	5484VT3	226	26.3	8.6	9.0	0	3.5	6.7					
Hyland	HL CVR74	221	26.5	8.3	9.0	0	2.8	4.7					
LICA	1900F/RR/HX	243	26.5	9.2	9.0	0	3.0	5.8					
Hyland	HL B49R	225	27.9	8.1	9.0	0	3.2	6.3					
T A Seeds	TA500-16	223	28.0	8.0	9.0	0	4.3	5.7					
LICA	1900FRR/HXT	209	30.3	6.9	9.0	0	3.3	4.8					
	Mean	228	25.4	9.0	8.7	0	3.4	5.4					
	CV	8	6.8		5.5								
	LSD	29	2.9		0.8								
	SD	17	1.7		0.5								

Table 10. 2009 Medium Early Maturity Hybrids, Chemung, Chemung County, Southern Tier NY

Brand	Hybrid	Yield Bu/A	% Moisture	Y/M Ratio	Std ability	% Stalk Ldg	Early Vigor	Planted: May 2 2009		Harvested: Oct 29 2009		
								85/50 Growing Degree Days	2009 Ave.	Rainfall (Inches)	2009 Ave.	
Hyland	HL CVR54	168	21.8	7.7	7.7	9	3.3					
T A Seeds	TA451-11	165	21.8	7.6	6.7	15	3.0					
LICA	1889V/RR/BT	151	21.9	6.9	8.0	3	3.0					
Growmark FS	5099VT3	144	22.8	6.3	6.7	12	3.0					
Dekalb	DKC50-44(VT3)	165	23.0	7.2	7.7	4	3.0	May	363	342	4.0	3.2
Doebler's	RPM515HXR	169	23.1	7.3	8.7	1	3.0	June	473	541	5.2	4.0
T A Seeds	TA510-11	183	23.1	7.9	7.3	5	2.8	July	519	635	2.5	3.2
Growmark FS	4861VT3	169	23.3	7.3	7.0	9	4.0	Aug	624	619	4.2	3.3
Dyna-Gro	54V78	150	23.6	6.4	7.7	10	3.0	Sept	366	424	1.9	3.7
Dyna-Gro	V3883VT3	189	23.6	8.0	7.3	1	3.3	Oct	139	178	3.4	3.0
Dyna-Gro	55V18	164	24.1	6.8	7.0	4	3.0					
Hyland	HL CVR64	182	25.2	7.2	8.7	1	4.0	Total	2484	2738	21.2	20.24
Growmark FS	4465VT3	197	25.4	7.8	8.3	1	3.8	% Norm	91		104.7	
LICA	1900F/RR/HX	220	25.8	8.5	8.7	0	3.3	Departure	-254		1.0	
Hyland	HL B49R	200	26.3	7.6	9.0	0	3.7					
Viking	0.671	189	26.3	7.2	8.0	8	2.8					
Growmark FS	5484VT3	206	26.8	7.7	8.7	0	3.0					
LICA	1900FRR/HXT	209	26.9	7.8	9.0	0	3.5					
Growmark FS	5595VT3	210	27.2	7.7	8.3	4	3.3					
Hyland	HL CVR74	186	27.3	6.8	8.0	3	2.7					
Hyland	HL R265	198	28.4	7.0	8.7	2	3.0					
T A Seeds	TA500-16	172	29.2	5.9	9.0	1	3.8					
	Mean	181	24.9	7.3	8.0	4	3.2					
	CV	8	7.8		6.8							
	LSD	24	3.1		0.9							
	SD	15	1.9		0.5							

Table 11. 2009 Medium Early Maturity Hybrids, New Hope, Cayuga County, Central NY

Brand	Hybrid	Yield Bu/A	% Moisture	Y/M Ratio	Std ability	% Stalk Ldg	Early Vigor	Plnt Ht	Planted:		Harvested:		
									May 4 2009		Nov 13 2009		
Hyland	HL CVR54	234	22.9	10.2	8.0	0	4.2	4.7	85/50				
Growmark FS	4465VT3	208	23.4	8.9	8.7	1	4.2	4.7	Growing		Rainfall		
T A Seeds	TA451-11	192	23.5	8.2	8.7	1	2.3	5.5	Degree Days		(Inches)		
T A Seeds	TA510-11	195	23.7	8.2	8.0	0	2.0	5.3	2009	Ave.	2009	Ave.	
Dyna-Gro	55V18	209	24.0	8.7	8.3	1	3.7	5.3	May	304	280	5.6	3.3
LICA	1889V/RR/BT	187	24.6	7.6	8.3	0	2.8	6.0	June	408	478	4.6	4.6
Growmark FS	5099VT3	197	24.6	8.0	8.3	0	3.2	5.3	July	490	584	2.5	3.9
Dyna-Gro	54V78	240	24.8	9.7	8.7	1	3.8	5.0	Aug	582	571	6.4	3.6
Dekalb	DKC50-44(VT3)	217	24.9	8.7	8.3	3	3.3	5.3	Sept	338	389	3.7	4.4
Doebler's	RPM515HXR	208	25.1	8.3	8.7	1	3.7	5.2	Oct	117	168	3.5	3.5
Hyland	HL CVR64	201	25.1	8.0	8.7	0	4.3	5.7					
Growmark FS	4861VT3	194	25.1	7.7	8.7	0	4.3	4.0	Total	2239	2471	26.1	23.3
Viking	0.671	220	25.4	8.7	8.7	1	3.2	6.0	% Norm	91		112.1	
Hyland	HL R265	220	26.4	8.3	8.0	2	3.8	5.0	Departure	-232		2.8	
Growmark FS	5595VT3	230	26.4	8.7	8.7	0	3.8	5.3					
Hyland	HL CVR74	224	26.8	8.4	8.7	1	3.5	5.0					
Dyna-Gro	V3883VT3	210	26.9	7.8	9.0	0	4.2	4.0					
Growmark FS	5484VT3	199	27.1	7.3	8.3	0	3.3	6.0					
Hyland	HL B49R	199	27.5	7.2	8.3	1	3.7	5.7					
LICA	1900F/RR/HX	218	28.8	7.6	8.0	2	3.0	6.0					
T A Seeds	TA500-16	183	28.9	6.3	9.0	0	4.5	5.7					
LICA	1900FRR/HXT	201	28.9	7.0	8.7	1	4.0	6.0					
	Mean	208	25.7	8.2	8.5	1	3.6	5.3					
	CV	9	4.7		5.9								
	LSD	29	2.0		0.8								
	SD	18	1.2		0.5								

**Table 12. 2009 Medium Maturity Hybrids Trial Summary
(Chemung, Avon, Pittsford, Kingston)**

Brand	Hybrid	% Yield		Y/M Ratio	Std ability	% Stalk		Early Vigor	Plnt Ht	Cg*	Stay Grn*
		Bu/A	Mois ture			Ldg	Ldg				
Dyna-Gro	V4393VT3	203	23.1	8.8	8.1	1	3.6	4.8	3.2	2.8	
T A Seeds	TA545-19	226	23.3	9.7	8.6	1	4.5	5.3	2.5	3.0	
Growmark FS	5484VT3	210	23.5	8.9	8.5	1	3.5	5.1	3.1	2.9	
Dyna-Gro	55V24	197	23.6	8.3	8.5	2	3.5	4.8	2.6	2.5	
Growmark FS	5595VT3	217	24.2	9.0	8.3	2	4.5	4.8	3.1	3.0	
Viking	0.574	183	24.2	7.6	8.1	2	3.5	4.3	3.7	2.7	
Doebler's	611XY	231	24.8	9.3	8.6	2	3.8	5.7	1.8	2.0	
Dyna-Gro	56R29	212	24.8	8.5	8.8	0	4.3	6.1	3.2	2.7	
LICA	1804F/GT	195	25.1	7.8	8.4	2	3.4	4.9	1.8	2.8	
Dekalb	DKC61-69(VT3)	210	25.7	8.2	8.5	2	3.7	4.7	2.9	2.9	
Hyland	HL B337	221	26.0	8.5	8.8	1	4.3	6.3	3.2	2.4	
T A Seeds	TA575-19	213	26.4	8.1	8.8	0	3.8	5.2	1.6	2.3	
LICA	1805F/GT	192	26.8	7.2	8.7	2	3.7	5.1	1.9	2.3	
T A Seeds	TA688-11	225	27.4	8.2	8.9	1	4.0	6.1	2.6	2.1	
Growmark FS	6296VT3	235	28.2	8.3	8.8	0	4.7	6.4	2.6	2.7	
	Mean	211	25.1	8.4	8.6	1	3.9	5.3	2.7	2.6	
	CV	9	5.2		5.7						
	LSD	15	1.0		0.4						
	SD	18	1.3		0.5						

* 2 locations only

Table 13. 2009 Medium Maturity Hybrids, Chemung, Chemung County, Southern Tier NY

Brand	Hybrid	Yield Bu/A	% Moisture	Y/M Ratio	Stnd ability	% Stalk Ldg	Early Vigor	Planted:		Harvested:		
								May 2 2009	Oct 29 2009	2009	Ave.	2009
Viking	0.574	174	26.0	6.7	8.0	5	2.7	85/50				
Growmark FS	5484VT3	184	26.1	7.0	8.3	1	3.0	Growing Rainfall				
Dyna-Gro	V4393VT3	183	26.2	7.0	8.3	2	3.0	Degree Days (Inches)				
T A Seeds	TA545-19	202	26.2	7.7	8.7	2	3.7					
Dyna-Gro	55V24	195	26.7	7.3	8.0	4	2.8	May	363	342	4.0	3.2
LICA	1804F/GT	170	27.0	6.3	7.7	7	3.0	June	473	541	5.2	4.0
Growmark FS	5595VT3	198	27.1	7.3	7.7	4	3.3	July	519	635	2.5	3.2
Dekalb	DKC61-69(VT3)	186	27.3	6.8	7.3	8	3.3	Aug	624	619	4.2	3.3
Doebler's	611XY	226	28.0	8.1	8.7	0	3.3	Sept	366	424	1.9	3.7
T A Seeds	TA575-19	199	28.3	7.0	8.7	0	3.0	Oct	139	178	3.4	3.0
Dyna-Gro	56R29	193	28.6	6.7	9.0	0	3.7					
LICA	1805F/GT	176	29.6	5.9	8.0	6	3.7	Total	2484	2738	21.2	20.24
Hyland	HL B337	204	29.8	6.8	8.7	1	3.3	% Norm	91		104.7	
T A Seeds	TA688-11	214	31.2	6.9	9.0	2	3.3	Departure	-254		1.0	
Growmark FS	6296VT3	229	31.5	7.3	8.7	1	3.7					
	Mean	196	28.0	7.0	8.3	3	3.3					
	CV	7	5.8		7.0							
	LSD	21	2.7		1.0							
	SD	13	1.6		0.6							

Table 14. 2009 Medium Maturity Hybrids, Avon, Livingston County, Western NY

Brand	Hybrid	Yield Bu/A	% Moisture	Y/M Ratio	Stnd ability	% Stalk Ldg	Early Vigor	Pint Ht	Stay Cg	Stay Grn	Planted:		Harvested:		
											May 19-20	Nov 23-24 2009	2009	Ave.	2009
T A Seeds	TA545-19	241	22.7	10.6	8.3	0	4.5	4.7	1.5	2.5	85/50				
Dyna-Gro	55V24	219	23.3	9.4	8.7	1	4.0	3.7	3.2	3.2	Growing Rainfall				
Dyna-Gro	V4393VT3	221	23.4	9.4	8.0	0	4.0	3.7	3.2	2.8	Degree Days (Inches)				
Doebler's	611XY	235	23.6	10.0	8.3	1	4.0	5.7	1.0	2.2					
Growmark FS	5484VT3	225	23.7	9.5	9.0	0	4.0	4.7	3.0	3.0	May	348	305	2.5	2.9
Growmark FS	5595VT3	233	24.6	9.5	9.0	2	5.0	4.0	2.7	3.0	June	442	516	4.9	3.5
Viking	0.574	208	24.6	8.5	9.0	0	3.8	3.7	3.7	2.2	July	529	623	3.8	2.8
Dyna-Gro	56R29	232	24.7	9.4	8.7	0	4.3	5.7	2.8	2.3	Aug	606	575	1.9	3.3
T A Seeds	TA575-19	212	24.9	8.5	8.7	0	3.8	4.3	1.2	2.3	Sept	379	386	1.2	3.5
LICA	1804F/GT	195	25.4	7.7	8.7	0	3.7	5.0	1.7	3.0	Oct	127	190	2.9	2.6
Hyland	HL B337	232	26.3	8.8	9.0	0	4.7	5.7	2.8	2.3					
Dekalb	DKC61-69(VT3)	231	26.4	8.8	9.0	0	3.8	4.3	2.3	2.8	Total	2431	2595	17.2	18.6
T A Seeds	TA688-11	234	26.6	8.8	9.0	0	4.7	5.7	2.5	2.2	% Norm	94		92.7	
LICA	1805F/GT	194	26.8	7.2	9.0	0	4.2	4.7	1.5	3.2	Departure	-164		-1.4	
Growmark FS	6296VT3	234	27.2	8.6	8.7	1	4.8	5.3	2.5	3.3					
	Mean	223	24.9	9.0	8.7	0.3	4.2	4.7	2.4	2.7					
	CV	9	3.6		4.3										
	LSD	32	1.5		0.6										
	SD	19	0.9		0.4										

Table 15. 2009 Medium Maturity Hybrids, Pittsford, Monroe County, Western NY

Brand	Hybrid	Yield Bu/A	% Moisture		Y/M Ratio	Stnd ability	% Stalk Ldg	Early Vigor	Planted: May 22 2009	Harvested: Dec 2 2009				
											Rainfall (Inches)		2009 Ave.	
Dyna-Gro	V4393VT3	197	21.5	9.2	8.3	0	3.8			85/50				
Dyna-Gro	55V24	183	22.7	8.1	8.3	1	3.7			Growing				
T A Seeds	TA545-19	219	23.4	9.4	8.7	0	4.5			Degree Days				
Growmark FS	5595VT3	213	23.4	9.1	8.7	1	4.7							
Dyna-Gro	56R29	207	24.0	8.6	9.0	1	4.0		May	303	323	3.3	2.8	
Growmark FS	5484VT3	215	24.0	9.0	8.7	0	3.8		June	427	508	6.3	3.4	
Hyland	HL B337	215	24.8	8.7	8.7	1	4.5		July	513	653	4.3	2.9	
LICA	1804F/GT	202	25.4	8.0	8.7	1	3.5		Aug	604	605	1.6	3.5	
Doebler's	611XY	230	25.5	9.0	8.7	3	4.0		Sept	360	394	2.0	3.5	
Dekalb	DKC61-69(VT3)	199	25.7	7.7	9.0	0	3.8		Oct	111	185	3.0	2.6	
LICA	1805F/GT	217	26.2	8.3	8.7	2	3.5							
Viking	0.574	175	26.4	6.6	8.0	4	3.3		Total	2318	2667	20.5	18.7	
T A Seeds	TA688-11	228	26.5	8.6	9.0	1	4.5		% Norm	87		109.6		
T A Seeds	TA575-19	191	27.1	7.0	9.0	1	3.7		Departure	-349		1.8		
Growmark FS	6296VT3	216	28.3	7.6	9.0	0	5.0							
	Mean	207	25.0	8.3	8.7	1	4.0							
	CV	9	5.9		6.2									
	LSD	29	2.4		0.9									
	SD	17	1.5		0.5									

Table 16. 2009 Medium Maturity Hybrids, Kingston, Ulster County, Hudson Valley NY

Brand	Hybrid	Yield Bu/A	% Moisture		Y/M Ratio	Stnd ability	% Stalk Ldg	Early Vigor	Plnt Ht*	Cg*	Stay Grn*	Czm*	Planted: May 11 2009	Harvested: Nov 9 2009				
															Rainfall (Inches)		2009 Ave.	
Viking	0.574	174	19.8	8.8	7.3	0	4.3	5.0	3.8	3.3	3.0			85/50				
Growmark FS	5484VT3	215	20.4	10.5	8.0	1	3.3	5.5	3.3	2.8	3.5			Growing				
T A Seeds	TA545-19	241	20.9	11.5	8.7	0	5.2	6.0	3.5	3.5	3.3			Degree Days				
Dyna-Gro	V4393VT3	212	21.4	9.9	7.7	1	3.5	6.0	3.3	2.8	3.5							
Dyna-Gro	56R29	216	21.8	9.9	8.7	0	5.2	6.5	3.5	3.0	1.8	May	342	341	5.5	3.7		
Growmark FS	5595VT3	223	21.8	10.2	8.0	0	5.2	5.5	3.5	3.0	3.5	June	484	507	8.1	4.7		
Dyna-Gro	55V24	192	21.9	8.8	9.0	0	3.3	6.0	2.0	1.8	3.5	July	575	600	6.6	4.0		
Doebler's	611XY	234	22.1	10.6	8.7	3	3.8	5.8	2.5	1.8	2.3	Aug	616	573	6.7	4.7		
LICA	1804F/GT	212	22.4	9.5	8.7	0	3.5	4.8	2.0	2.5	2.5	Sept	399	411	1.6	4.2		
Hyland	HL B337	232	23.0	10.1	8.7	1	4.7	7.0	3.5	2.5	2.5	Oct	173	225	4.2	4.7		
Dekalb	DKC61-69(VT3)	223	23.5	9.5	8.7	0	3.8	5.0	3.5	3.0	3.5							
LICA	1805F/GT	180	24.6	7.3	9.0	0	3.3	5.5	2.3	1.5	2.8	Total	2589	2658	32.8	25.9		
T A Seeds	TA575-19	251	25.1	10.0	9.0	0	4.5	6.0	2.0	2.3	2.3	% Norm	97		126.5			
T A Seeds	TA688-11	225	25.5	8.8	8.7	0	3.7	6.5	2.8	2.0	3.0	Departure	-69		6.9			
Growmark FS	6296VT3	260	25.9	10.0	9.0	0	5.3	7.5	2.8	2.0	2.8							
	Mean	219	22.7	9.7	8.5	0.4	4.2	5.9	3.0	2.5	2.9							
	CV	10	4.8		5.1													
	LSD	37	1.8		0.7													
	SD	23	1.1		0.4													

*2 reps only