

Cornell University Cooperative Extension

2015 New York Hybrid Corn Grain Performance Trials



Plant Breeding and Genetics 2016-1

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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 2015 commercial hybrid corn grain trials. It shows results from six 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 Schut C.

Margaret E. Smith Extension Leader, Plant Breeding & Genetics

For information on entering hybrids in the 2016 trials, please contact Judy Singer at jls10@cornell.edu or 607-255-5461 or Margaret Smith.

1/2016 PB&G2016-1

Building Strong and Vibrant New York Communities

2015 Growing Conditions

As with many recent seasons here in New York, the 2015 growing season had some extremes for weather, especially precipitation. In general, warm May temperatures facilitated timely planting. That was fortunate, as rainfall totals in June were 1.5 to 2 times the long term average, favoring earlier planted fields and causing uneven stands and delayed crop development in some later planted sites. Temperatures and rainfall totals were closer to average for the rest of the summer. Above normal heat unit accumulation in September helped to mature the crop. Temperature and rainfall conditions remained fairly typical through harvest, leading to generally good corn crops around the state. State average yield was reported at 146 bu/acre – just 2 bu/acre lower than the 2014 yield and just 3 bu/acre below the record 2010 state average. This fits a trend line for New York corn grain yields, which have increased at a rate of 1.7 bu/acre/year for the past 30 years.

Northern leaf blight was prevalent late in the growing season in many areas around the state, but was probably not intense enough to cause much yield loss by the time it came in. Gray leaf spot was common in misty valley areas of the southern tier and Hudson Valley, and was found at low levels in a variety of New York locations.

Testing Procedures

Regional test locations for 2015 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. Each plot's grain weight and grain moisture percentage was 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. Overall plant health (**Plt Hlth**) was rated using a scale where 5 = completely susceptible (plant dead due to diseases) 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.

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.

2015 Trial Locations



2015 Cooperators

Early/Medium-early Grain Series

County	Cornell Cooperative Extension Local Contact	Cooperator	Location
Cayuga	Keith Severson	Paul Stachowski	Aurora
Chemung	Janice Degni	Dudley French	Chemung
St. Lawrence	Brent Buchanan	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

2015 Participating Companies

Company/Brand	Contact for Information	Address & Phone
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
Doebler's PA Hybrids, Inc. Doebler's® www.doeblers.com	Doug Messersmith dmesser@doeblers.com	202 Tiadaghton Avenue Jersey Shore, PA 17740 Phone: 570-753-3210
Syngenta Crop Protection www.syngenta.com	Jeff Zelna jeff.zelna@syngenta.com	4598 Reliant Road Jamesville, NY 13078 Phone: 315-243-8855
T. A. Seeds www.taseeds.com	Taylor Doebler III taylor@taseeds.com	PO Box 300 Avis, PA 17721 Phone: 866-813-SEED (7333)

2015 Entries by Company

				Genetically
	Maturity		Relative	Engineered
Company	Group*	Hybrid	Maturity	Traits**
Doebler's	1	RPM® 2415HXR™	84	HX1/LL/RR2
Doebler's	2	Doebler's® 3916GRQ	99	GT/CB/LL/RW
Doebler's	2	RPM® 3016AMX TM	90	HX1/YGCB/LL/RR2/RW
Doebler's	2	RPM [®] 3316AM [™]	93	HX1/YGCB/LL/RR2
Doebler's	3	RPM® $4115 \text{AM}^{\text{TM}}$	101	HX1/YGCB/LL/RR2
Doebler's	3	RPM [®] 5125AM [™]	111	HX1/YGCB/LL/RR2
Doebler's	3	RPM [®] 563HXR [™]	105	HX1/LL/RR2
Dyna-Gro	2	D37SS60	97	SMARTSTAX
Dyna-Gro	2	D39VC69	99	VT2 PRO
Dyna-Gro	2	D39VP14	99	VT3 PRO
Dyna-Gro	2	D40SS48	100	SMARTSTAX
Dyna-Gro	3	D43VC50	103	VT2 PRO
Syngenta	1	N18Q	84	RR, Corn Borer, Rootworm
Syngenta	2	N29T	92	RR, Lep, Corn Borer, Rootworm
Syngenta	2	N35T	95	RR, Lep, Corn Borer
Syngenta	2	N36A	96	RR, Lep, Corn Borer, Rootworm
Syngenta	3	N45P	101	RR, Corn Borer, Rootworm
T. A. Seeds	2	TA266-22DPRIB	86	VT2P
T. A. Seeds	2	TA333-28RIB	91	Smartstax
T. A. Seeds	2	TA455-32EZ	95	Agrisure 3220
T. A. Seeds	3	TA506-22DPRIB	100	VT2P
T. A. Seeds	3	TA536-22DPRIB	103	VT2P
T. A. Seeds	3	TA566-31	106	AGRISURE 3111
T. A. Seeds	3	TA583-22DPRIB	108	VT2P

*

1 = Early

2 = Medium-early

3 = Medium

**

Trait abbreviations are as provided by each seed company

			%		%	%			
		Yield	Mois	Y/M	Stalk	Root	Early	Stay	Plant
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor	Grn	Hlth*
Supgopto	NOOT	222	107	126	0	0	20	24	20
Dechleria		202	10.7	12.0	0	0	3.0	2.4	2.0
Doebler S®		209	19.2	10.9	0	0	4.3	3.1	2.8
Syngenta	N18Q	221	19.9	11.2	0	0	4.1	2.7	2.5
Doebler's®	RPM® 3016AMX™	213	20.5	10.6	0	0	3.6	1.8	1.8
T A Seeds	TA266-22DPRIB	229	20.8	11.4	0	0	4.2	2.6	3.0
Doebler's®	RPM® 3316AM™	206	20.8	10.2	0	0	4.2	2.1	2.1
T A Seeds	TA455-32EZ	227	21.7	10.8	0	0	3.7	2.1	2.2
Syngenta	N36A	232	22.0	11.0	0	0	3.8	1.9	2.3
Syngenta	N35T	240	22.2	11.1	0	0	3.8	1.9	2.0
T A Seeds	TA333-28RIB	230	22.8	10.5	0	0	3.6	1.8	1.5
Dyna-Gro	D37SS60	231	22.9	10.4	0	0	3.8	1.4	1.3
Dyna-Gro	D39VC69	231	23.2	10.4	0	0	3.4	1.4	1.9
Dyna-Gro	D39VP14	222	23.3	9.9	0	0	4.0	1.9	1.8
Doebler's®	3916 GRQ	239	23.3	10.6	0	0	4.4	2.0	2.1
Dyna-Gro	D40SS48	249	23.9	10.9	0	0	4.1	1.3	1.4
	ΜΕΔΝ	227	21 7	10.8	0 1	0.0	39	20	21
	S.D.	14	.8	10.0	0.1	0.0	0.0	2.0	£.1
	C V	6	39						
	LSD(.05)	13	.8						

 Table 1. 2015 Early/Medium-early Maturity Hybrids Trial Summary

 (Chemung, New Hope, Madrid)

* 2 location data

Table 2. 2015 Early/Medium-early Maturity Hybrids, Chemung, Chemung County, Southern Tier NY

			%		%	%								
		Yield	Mois	Y/M	Stalk	Root	Early	Stay	Plant		Plantee	d:	Harves	sted:
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor	Grn	Hlth		May 6 2	2015	Nov 5 2	2015
Syngenta	N29T	229	15.9	14.4	0	0	4.3	3.0	4.0		86/50			
T A Seeds	TA266-22DPRIB	227	16.2	14.0	0	0	5.0	3.7	4.3		Growin	g	Rainfal	I
Doebler's®	RPM® 3016AMX™	205	16.2	12.6	0	0	4.0	2.5	3.2		Degree	Days	(Inches	;)
Doebler's®	RPM® 2415HXR™	176	16.3	10.8	0	1	5.0	4.0	4.3		2015	Ave.	2015	Ave.
T A Seeds	TA455-32EZ	225	16.6	13.6	1	0	4.0	2.3	3.5	May	465	350	1.8	3.1
Dyna-Gro	D39VC69	223	16.6	13.4	0	0	4.0	2.0	2.8	June	480	535	6.4	4.1
Doebler's®	RPM® 3316AM™	214	16.7	12.8	0	0	5.0	2.5	3.3	July	587	639	2.3	3.6
T A Seeds	TA333-28RIB	220	16.8	13.1	1	0	4.0	2.2	2.5	Aug	563	619	1.8	3.4
Dyna-Gro	D39VP14	210	16.8	12.5	0	0	4.7	2.5	3.2	Sept	507	421	3.3	3.6
Syngenta	N36A	244	16.9	14.4	0	0	4.3	2.2	3.2	Oct	187	174	1.9	3.2
Dyna-Gro	D37SS60	229	17.1	13.4	0	0	4.5	1.8	2.3					
Syngenta	N18Q	226	17.1	13.2	0	0	4.7	3.5	3.8	Total	2789	2737	17.5	20.9
Dyna-Gro	D40SS48	248	17.2	14.4	0	0	5.0	1.7	2.3	% Norm	102		84	
Syngenta	N35T	239	17.3	13.8	0	0	4.3	2.2	3.3	Departure	53		-3.4	
Doebler's®	3916 GRQ	232	17.8	13.0	0	1	5.0	2.8	3.7					
	MEAN	223	16.8	13.3	0.1	0.1	4.5	2.6	3.3					
	S.D.	11	0.3											
	C.V.	5	1.9											
	LSD(.05)	19	0.5											

Table 3. 2015 Early/Medium-early Maturity Hybrids, New Hope, Cayuga County, Central NY

			%		%	%							
		Yield	Mois	Y/M	Stalk	Root	Early	Stay		Plante	d:	Harves	sted:
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor	Grn		May 82	2015	Oct 19	2015
Syngenta	N29T	229	19.4	11.8	0	0	3.0	3.0		86/50			
Doebler's®	RPM® 2415HXR™	209	19.9	10.5	0	0	3.3	3.2		Growin	g	Rainfal	I
Syngenta	N18Q	222	20.9	10.6	0	0	2.8	2.7		Degree	Days	(Inches	5)
Doebler's®	RPM® 3316AM™	211	21.7	9.8	0	0	3.0	2.2		2015	Ave.	2015	Ave.
Doebler's®	RPM® 3016AMX™	221	22.5	9.8	0	0	2.8	2.0	May	450	267	3.4	3.6
T A Seeds	TA266-22DPRIB	225	22.9	9.9	0	0	3.0	2.7	June	437	446	7.7	4.3
Syngenta	N35T	235	24.2	9.7	0	0	2.8	2.5	July	581	574	4.3	4.0
Syngenta	N36A	229	25.0	9.2	0	0	3.0	2.3	Aug	574	535	1.8	3.8
T A Seeds	TA455-32EZ	226	25.4	8.9	0	0	3.0	2.3	Sept	506	337	4.7	4.2
Dyna-Gro	D37SS60	235	25.6	9.2	0	0	3.0	1.7	Oct	135	138	3.3	4.0
Doebler's®	3916 GRQ	238	25.8	9.2	0	0	3.7	2.3					
Dyna-Gro	D39VC69	234	26.0	9.0	0	0	2.7	1.7	Total	2682	2297	25.2	23.9
T A Seeds	TA333-28RIB	229	26.1	8.8	0	0	2.7	2.2	% Norm	117		105	
Dyna-Gro	D40SS48	247	26.7	9.3	0	0	3.0	1.5	Departure	385		1.3	
Dyna-Gro	D39VP14	222	27.0	8.2	0	0	3.0	1.8					
	MEAN	228	23.9	9.6	0.0	0.0	3.0	2.3					
	S.D.	12	1.1										
	C.V.	5	4.7										
	LSD(.05)	20	1.9										

Table 4. 2015 Early/Medium-early Maturity Hybrids, Madrid, St. Lawrence County, Northern NY

			%		%	%								
		Yield	Mois	Y/M	Stalk	Root	Early	Stay	Plant		Plante	d:	Harves	sted:
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor	Grn	Hlth		May 7 2	2015	Oct 22	2015
Syngenta	N29T	239	20.7	11.5	0	0	4.0	1.3	1.7		86/50			
Doebler's®	RPM® 2415HXR™	242	21.5	11.3	1	0	4.7	2.0	1.3		Growin	g	Rainfal	I
Syngenta	N18Q	215	21.8	9.9	0	0	4.7	1.8	1.2		Degree	Davs	(Inches	;)
Doebler's®	RPM® 3016AMX™	214	22.8	9.4	0	0	4.0	1.0	0.5		2015	Ave.	2015	Ave.
T A Seeds	TA455-32EZ	229	23.0	10.0	0	0	4.0	1.7	0.8	May	424	308	2.4	3.0
T A Seeds	TA266-22DPRIB	236	23.2	10.2	0	0	4.7	1.5	1.7	June	407	482	8.6	3.5
Syngenta	N36A	222	24.1	9.2	1	0	4.2	1.2	1.3	July	594	649	4.0	3.4
Doebler's®	RPM® 3316AM™	193	24.1	8.1	0	0	4.5	1.7	0.8	Aug	599	581	4.1	3.6
Syngenta	N35T	245	25.1	9.8	0	0	4.3	1.0	0.8	Sept	491	354	5.3	3.6
T A Seeds	TA333-28RIB	242	25.6	9.4	0	0	4.2	1.2	0.5	Oct	146	154	3.2	3.6
Dyna-Gro	D39VP14	233	25.9	9.0	0	0	4.3	1.3	0.5					
Dyna-Gro	D37SS60	230	26.1	8.8	0	0	4.0	0.8	0.3	Total	2649	2527	27.6	20.7
Doebler's®	3916 GRQ	248	26.5	9.4	0	0	4.5	0.8	0.5	% Norm	105		133	
Dyna-Gro	D39VC69	237	26.9	8.8	0	0	3.7	0.7	1.0	Departure	123		6.9	
Dyna-Gro	D40SS48	252	27.7	9.1	0	0	4.3	0.8	0.5	·				
	MEAN	232	24.3	9.6	0.1	0.0	4.3	1.3	0.9					
	S.D.	18	0.9	-		-	-	-	-					
	C.V.	8	3.6											
	LSD(.05)	29	1.5											

			%		%	%		
		Yield	Mois	Y/M	Stalk	Root	Early	Stay
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor*	Grn
Doebler's®	RPM® 4115AM™	175	18.5	9.4	2	0	3.6	2.8
Syngenta	N45P	171	18.6	9.2	1	0	3.7	3.2
T A Seeds	TA506-22DPRIB	181	18.9	9.6	3	0	3.8	2.8
T A Seeds	TA536-22DPRIB	195	19.3	10.1	1	0	3.9	2.8
Dyna-Gro	D43VC50	193	19.4	10.0	3	0	3.8	2.9
Doebler's®	RPM® 563HXR™	192	19.6	9.8	2	0	4.3	2.7
Doebler's®	RPM® 5125AM™	202	20.6	9.8	1	0	3.6	2.2
T A Seeds	TA583-22DPRIB	188	21.0	8.9	2	0	3.5	2.8
T A Seeds	TA566-31	207	21.3	9.7	7	0	3.7	2.6
	MEAN	189	19.7	9.6	2.4	0.0	3.8	2.7
	S.D.	19	1.1					
	C.V.	10	5.5					
	LSD(.05)	16	0.9					

Table 5. 2015 Medium Maturity Hybrids Trial Summary(Chemung, Kingston, Pittsford, Aurora)

* 3 location data

Table 6. 2015 Medium Maturity Hybrids, Chemung, Chemung County, Southern Tier NY

			%		%	%								
		Yield	Mois	Y/M	Stalk	Root	Early	Stay	Plant		Plantee	d:	Harves	sted:
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor	Grn	Hlth		May 6 2	2015	Nov 5 2	2015
Syndenta	N45P	224	17 5	12.8	0	0	47	22	27		86/50			
Doebler's®	RPM® 4115AM™	262	17.5	14.9	Õ	Õ	4.7	1.5	3.3		Growin	g	Rainfal	I
T A Seeds	TA506-22DPRIB	236	17.7	13.3	1	0	4.8	1.2	2.0		Degree	Days	(Inches	;)
T A Seeds	TA536-22DPRIB	266	18.2	14.6	0	0	4.7	1.3	2.3		2015	Ave.	2015	Ave.
Dyna-Gro	D43VC50	246	18.5	13.3	1	0	4.5	1.3	1.8	May	465	350	1.8	3.1
T A Seeds	TA566-31	284	18.5	15.4	0	0	4.5	1.2	2.2	June	480	535	6.4	4.1
Doebler's®	RPM® 563HXR™	274	18.6	14.7	0	0	5.0	1.2	1.8	July	587	639	2.3	3.6
Doebler's®	RPM® 5125AM™	270	18.7	14.5	0	0	4.0	1.0	2.8	Aug	563	619	1.8	3.4
T A Seeds	TA583-22DPRIB	267	19.4	13.8	0	0	4.0	1.5	2.0	Sept	507	421	3.3	3.6
										Oct	187	174	1.9	3.2
	MEAN	259	18.3	14.1	0.1	0.0	4.5	1.4	2.3					
	S.D.	17	0.3							Total	2789	2737	17.5	20.9
	C.V.	6	1.8							% Norm	102		84	
	LSD(.05)	28	0.6							Departure	53		-3.4	

Table 7. 2015 Medium Maturity Hybrids, Kingston, Ulster County, Hudson Valley NY

			%		%	%						
		Yield	Mois	Y/M	Stalk	Root	Stay		Planted	:	Harves	ted:
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Grn		May 11	2015	Nov 4 2	2015
T A Seeds	TA506-22DPRIB	163	15.8	10.3	8	0	4.8		86/50			
Syngenta	N45P	168	16.3	10.3	1	0	4.3		Growin	a	Rainfal	I
Doebler's®	RPM® 5125AM™	229	16.9	13.6	3	0	4.0		Degree	Days	(Inches	;)
T A Seeds	TA536-22DPRIB	171	16.9	10.1	0	0	4.3		2015	Ave.	2015	Ave.
Doebler's®	RPM® 4115AM™	178	16.9	10.5	3	0	3.3	May	471	284	1.6	4.4
Dyna-Gro	D43VC50	190	17.1	11.1	3	0	4.3	June	454	449	6.7	4.5
Doebler's®	RPM® 563HXR™	179	17.5	10.2	1	0	3.8	July	629	573	3.9	4.6
T A Seeds	TA566-31	191	17.7	10.8	20	0	4.8	Aug	625	538	2.6	4.3
T A Seeds	TA583-22DPRIB	177	17.8	10.0	3	0	4.3	Sept	531	351	6.4	4.5
								Oct	176	163	3.2	4.7
	MEAN	183	17.0	10.8	4.7	0.0	4.2					
	S.D.	16	0.5					Total	2882	2358	24.4	27.0
	C.V.	9	3.0					% Norm	122		90	
	LSD(.05)	28	0.9					Departure	524		-2.6	

Table 8. 2015 Medium Maturity Hybrids, Pittsford, Monroe County, Western NY

		%		%	%							
Hybrid	Yield Bu/A	Mois ture	Y/M Ratio	Stalk Ldg	Root Ldg	Early Vigor	Stay Grn	Planted: May 20 20	15	Harves Nov 92	ted: 015	
TA506-22DPRIB	223	19.0	11.7	0	0	4.5	1.3		86/50			
RPM® 563HXR™	198	19.1	10.3	0	0	5.0	1.9		Growing	g	Rainfal	I
N45P	198	19.7	10.2	0	0	3.5	1.8		Degree Days		(Inches)	
RPM® 4115AM™	167	20.4	8.2	0	0	3.5	1.8		2015	Ave.	2015	Ave.
TA536-22DPRIB	218	20.4	10.7	0	0	4.5	1.0	May	478	323	3.4	2.9
D43VC50	247	20.7	12.0	0	0	4.0	1.0	June	498	508	6.2	3.3
RPM® 5125AM™	216	22.4	9.8	0	0	4.3	0.8	July	645	653	3.6	3.3
TA566-31	250	22.4	11.1	0	0	4.0	1.3	Aug	612	605	4.7	3.5
TA583-22DPRIB	179	22.8	7.9	0	0	3.0	1.8	Sept	537	394	4.1	3.4
								Oct	172	185	2.8	2.7
MEAN	211	20.7	10.2	0.1	0.0	4.0	1.4					
S.D.	31	1.2						Total	2942	2668	24.7	19.1
C.V.	14	5.8						% Norm	110		129	
LSD(.05)	70	2.7						Departure	274		5.6	
	Hybrid TA506-22DPRIB RPM® 563HXR™ N45P RPM® 4115AM™ TA536-22DPRIB D43VC50 RPM® 5125AM™ TA566-31 TA583-22DPRIB MEAN S.D. C.V. LSD(.05)	Hybrid Xield Bu/A TA506-22DPRIB RPM® 563HXR™ 223 198 198 198 198 RPM® 563HXR™ 198 198 N45P 198 RPM® 4115AM™ 167 TA536-22DPRIB 218 D43VC50 247 RPM® 5125AM™ 216 TA566-31 250 TA583-22DPRIB 179 MEAN 211 S.D. 31 C.V. 14 LSD(.05) 70	% Yield Mois Bu/A Hybrid 223 19.0 RPM® 563HXR™ 198 19.1 N45P 198 19.7 RPM® 4115AM™ 167 20.4 TA536-22DPRIB 218 20.4 D43VC50 247 20.7 RPM® 5125AM™ 216 22.4 TA583-22DPRIB 179 22.8 MEAN 211 20.7 S.D. 31 1.2 C.V. 14 5.8 LSD(.05) 70 2.7	% Yield Mois bus bus bus bus bus bus bus bus bus bu	% % Hybrid Yield Bu/A Mois Nure Y/M Ratio Stalk Ldg TA506-22DPRIB RPM® 563HXR™ 223 19.0 11.7 0 RPM® 563HXR™ 198 19.1 10.3 0 N45P 198 19.7 10.2 0 RPM® 4115AM™ 167 20.4 8.2 0 TA536-22DPRIB 218 20.4 10.7 0 D43VC50 247 20.7 12.0 0 RPM® 5125AM™ 216 22.4 9.8 0 TA566-31 250 22.4 11.1 0 TA583-22DPRIB 179 22.8 7.9 0 MEAN 211 20.7 10.2 0.1 S.D. 31 1.2 0.1 1.1 S.D. 31 1.2 0.1 S.D. 31 1.2 0.1 S.D. 31 1.2 0.1 S.D. 70 2.7 <	% % % Hybrid Yield Bu/A Mois ture Y/M Ratio Stalk Ldg Root Rot Ldg TA506-22DPRIB 223 19.0 11.7 0 0 RPM® 563HXR™ 198 19.1 10.3 0 0 N45P 198 19.7 10.2 0 0 RPM® 4115AM™ 167 20.4 8.2 0 0 TA536-22DPRIB 218 20.4 10.7 0 0 D43VC50 247 20.7 12.0 0 0 RPM® 5125AM™ 216 22.4 9.8 0 0 TA583-22DPRIB 179 22.8 7.9 0 0 TA583-22DPRIB 179 22.8 7.9 0.1 0.0 MEAN 211 20.7 10.2 0.1 0.0 S.D. 31 1.2 0.1 0.0 0 LSD(.05) 70 2.7 10.2 0.1 0.0<	%%%HybridYield Bu/AMois tureY/M RatioStalk LdgRoot LdgEarly VigorTA506-22DPRIB RPM® 563HXR™22319.011.7004.5RPM® 563HXR™19819.110.3005.0N45P19819.710.2003.5RPM® 4115AM™16720.48.2003.5TA536-22DPRIB21820.410.7004.5D43VC5024720.712.0004.0RPM® 5125AM™21622.49.8004.3TA566-3125022.411.1004.0TA583-22DPRIB17922.87.9003.0MEAN21120.710.20.10.04.0S.D.311.20.10.04.0S.D.311.20.10.04.0LSD(.05)702.710.20.10.04.0	%%%HybridYield Bu/AMois tureY/M RatioStalk LdgRoot LdgEarly VigorStay GrnTA506-22DPRIB RPM® 563HXR™22319.011.7004.51.3RPM® 563HXR™19819.110.3005.01.9N45P19819.710.2003.51.8RPM® 4115AM™16720.48.2003.51.8TA536-22DPRIB21820.410.7004.51.0D43VC5024720.712.0004.01.0RPM® 5125AM™21622.49.8004.30.8TA566-3125022.411.1004.01.3TA583-22DPRIB17922.87.9003.01.8MEAN21120.710.20.10.04.01.4S.D.311.21.4S.D.311.21.4S.D.(J5)702.7	% % % Hybrid Yield Bu/A Mois ture Y/M Ratio Stalk Ldg Root Ldg Early Vigor Stay Grn Planted: May 20 20 TA506-22DPRIB 223 19.0 11.7 0 0 4.5 1.3 RPM® 563HXR™ 198 19.1 10.3 0 0 5.0 1.9 N45P 198 19.7 10.2 0 0 3.5 1.8 RPM® 4115AM™ 167 20.4 8.2 0 0 3.5 1.8 TA536-22DPRIB 218 20.4 10.7 0 0 4.5 1.0 May D43VC50 247 20.7 12.0 0 0 4.0 1.0 June RPM® 5125AM™ 216 22.4 9.8 0 0 4.0 1.3 Aug TA566-31 250 22.4 11.1 0 0 4.0 1.4 Sept C.V 14 5.8	% % % Hybrid Yield Mois Bu/A Y/M Stalk Ratio Root Ldg Early Ldg Stay Vigor Planted: May 20 2015 May 20 2015 TA506-22DPRIB 223 19.0 11.7 0 0 4.5 1.3 May 20 2015 May 20 2015 TA506-22DPRIB 223 19.0 11.7 0 0 4.5 1.3 86/50 RPM® 563HXR™ 198 19.1 10.3 0 0 3.5 1.8 Degree RPM® 4115AM™ 167 20.4 8.2 0 0 3.5 1.8 2015 TA536-22DPRIB 218 20.4 10.7 0 0 4.0 1.0 June 498 RPM® 5125AM™ 216 22.4 9.8 0 0 4.0 1.3 Aug 612 TA583-22DPRIB 179 22.8 7.9 0 0.3.0 1.8 Sept 537 Oct .12	Wield Mois Bu/A Y/M Stalk Ratio Root Ldg Early Vigor Stay Grn Planted: May 20 2015 Harves Nov 92 TA506-22DPRIB 223 19.0 11.7 0 0 4.5 1.3 86/50 RPM® 563HXR™ 198 19.1 10.3 0 0 3.5 1.8 0 0 3.5 1.8 0 0 0 3.5 1.8 0 0 2015 Ave. TA536-22DPRIB 218 20.4 8.2 0 0 3.5 1.8 0 0 2015 Ave. TA536-22DPRIB 218 20.4 10.7 0 0 4.5 1.0 May 478 323 D43VC50 247 20.7 12.0 0 0 4.0 1.0 June 498 508 RPM® 5125AM™ 216 22.4 9.8 0 0 4.0 1.3 Aug 612 605 TA583-22DPRIB 179 <td>% % % Hybrid Nois Bu/A Y/M bu/A Stalk bu/A bu/S bu/S bu/S bu/S bu/S bu/S bu/S bu/S</td>	% % % Hybrid Nois Bu/A Y/M bu/A Stalk bu/A bu/S bu/S bu/S bu/S bu/S bu/S bu/S bu/S

Table 9. 2015 Medium Maturity Hybrids, Aurora, Cayuga County, Central NY

			%		%	%							
		Yield	Mois	Y/M	Stalk	Root	Early	Stay		Planted:		Harvested:	
Brand	Hybrid	Bu/A	ture	Ratio	Ldg	Ldg	Vigor	Grn		May 26 2015		Nov 2 2015	
Doebler's®	RPM® 4115AM™	91	20.0	4.6	2	0	2.5	4.2		86/50			
Syngenta	N45P	101	21.3	4.8	3	0	2.8	4.2		Growing		Rainfall	
Dyna-Gro	D43VC50	109	21.8	5.0	9	0	2.8	4.5		Degree Days		(Inches)	
T A Seeds	TA536-22DPRIB	133	22.0	6.0	5	0	2.8	3.8		2015	Ave.	2015	Ave.
Doebler's®	RPM® 563HXR™	118	22.9	5.2	6	1	3.2	3.5	May	458	315	5.6	3.2
T A Seeds	TA506-22DPRIB	118	23.1	5.1	1	0	2.3	3.5	June	439	498	8.0	3.8
T A Seeds	TA583-22DPRIB	124	24.8	5.0	4	0	3.3	3.2	July	590	632	2.8	3.5
Doebler's®	RPM® 5125AM™	99	25.1	4.0	1	0	2.7	2.5	Aug	553	591	1.4	3.2
T A Seeds	TA566-31	118	27.0	4.4	4	0	2.7	2.7	Sept	511	398	5.2	4.0
									Oct	150	179	2.9	3.4
	MEAN	112	23.1	4.9	3.9	0.1	2.8	3.6					
	S.D.	17	1.7						Total	2701	2613	25.8	21.0
	C.V.	15	7.6						% Norm	103		122	
	LSD(.05)	29	3.0						Departure	88		4.7	