

University of Wisconsin - Extension Wisconsin Association of Professional Ag Consultants Independent, Replicated, On-Farm Research

2010 WAPAC Corn Performance Trials

2010 Data Analyzed and Compiled by Jon Baldock, PhD (AgStat, Verona, WI) in cooperation with the Wisconsin Association of Professional Ag Consultants (WAPAC)

Introduction

Before the time of universities, industry research programs or crop consultants, farmers implemented changes in their production practices through a myriad of methods with some success. The process of incremental change and gradual improvements has evolved into an impressive system of research, development and production never imagined just decades ago. This production system, while impressive and productive can attribute much of its success on the recurring question asked by the farmer: "What am I going to do differently next season?"

The answer to the question hopefully results in an improvement of efficiency and profitability that is real and a result of the changes implemented. Our production system is dependent on selecting the inputs and operations that achieve a desired outcome. The process of testing a hypothesis and using the information gained in a cooperative, systematic manner has been highly successful in providing viable options for producing food, feed and fiber on the farm. However, that success has created what can be a bewildering mix of options that leave the farmer and farm advisor struggling with the answer to the question above. As a result, the Wisconsin Association of Professional Agricultural Consultants (WAPAC) and UW-Extension have worked together with farm clients across the state to develop a network for the purpose of conducting applied research trials.

This network consists of crop consultants, local and statewide extension faculty and most importantly farmers cooperating in a coordinated effort across Wisconsin. The objective of this program is to evaluate new technologies and management practices. Trials are conducted across a wide range of environments and management schemes in replicated plots using production scale equipment. This publication summarizes the results of on-farm hybrid trials conducted during 2010.

Identifying the source of variability in yield is a primary objective in any hybrid trial. The use of statistical methods including replication and means comparisons improves the reliability and confidence of results and outcome from the implemented practice. On-farm testing with field scale equipment has traditionally been used for demonstration in non-replicated trials. An overriding strength of on-farm evaluations is the credibility of the results in the eyes of the end user, the farmer by showing how the practice responds within his production system. Often the power of these trials can be enhanced with simple modifications such as replication within locations and across multiple sites with coordinated effort. That coordination is what the membership of WAPAC and UW Extension provide in the execution of the trials. The advent of effective tools for collecting data related to crop production such as weigh wagons, on farm scales and yield monitors have removed many of the traditional barriers of on-farm trials. The increased incidence of having a trained specialist such as a crop consultant on the farm enables the coordination of multi-site evaluations that address production concerns in a real time manner. The evolution of all components of the production process will likely increase the need for more on-farm data collection and analysis as agriculture moves into the future. Collaborative efforts such as this will be necessary to utilize the wealth of information residing in the data collected at the farm.

Methodology of the On-Farm Trials

A recognized strength of field scale on-farm trials is the low coefficient of variability achieved within this type of trial as compared to smaller traditional field research trials. The coefficient of variability (CV) can be looked as a measure of quality of the trial itself. By reducing or addressing the variability of sites or practices within a trial, one can better evaluate the treatment effects of the trait or practice being tested. The use of randomization, replication and thoughtful plot layout help improve the quality of information

gleaned from the trial. The WAPAC Hybrid Trials use a minimum of 2 replications for each site and treatments (hybrids) are randomly placed within each replication. Plots are planted across sources of variability such as soil types or slopes to provide somewhat uniform representation of these sources within each replication. The plots are planted and harvested with field scale equipment. Individual plot sizes for hybrid trials are typically 6 to 12 rows wide and run distances of 500 to over 1000 feet in length. Data and observations are collected throughout the growing season and utilized in the analysis when appropriate. Information identifying plot locations, production inputs, site characteristics along with other supporting information is systematically collected and recorded in a database format to facilitate user queries and data archival.

Using the Results

Coupling the information from this publication with the UWEX Hybrid Corn Performance Trials as well as other hybrid performance trials will give the user the ability to evaluate how a particular hybrid performs in multiple environments. Predicting the performance of a hybrid in the future is done through analysis of past performance. A primary factor in the prediction is the number of locations or replications of a hybrid. This trial typically provides 6 to 12 or more replications of a hybrid at 3 to 6 locations across the state.

The results are reported in Yield per acre and Grower return.

Gross Margin = Gross Income - drying cost - test weight dockage, where Gross Income is the yield times \$4.75/bu, and Drying cost is 4.0¢/bu wet corn for each point above 15%, and Test weight dockage is 1¢/bu for each lb/bu below 54 lbs/bu, plus 3¢/bu for each lb/bu below 52 lb/bu, plus 5¢/bu for each lb/bu below 50 lbs/bu, assuming drying the grain adds 1 lb/bu to the test weight.

The data tables contain the number labeled "LSD" which stands for least significant difference. LSD's at the 10% level of probability are shown. Where the difference between two selected treatments within a column is equal to or greater than the LSD value at the bottom of the column, you can be sure that in nine out of ten chances that there is a real difference between the two treatment averages. If the difference is less than the LSD value, the difference may still be real, but the experiment has produced no evidence of real differences.

Statistics are a tool to help prevent us from deceiving others and ourselves. Growing conditions in any particular year can have large effects on certain practices. Two years of replicated data are a minimum for supporting most practices. On-farm testing is not a quick cure for anything, but it should greatly accelerate innovation and adoption of new practices by providing reliable, quantitative answers that apply directly to a producer's situation. Treatments frequently differ in performance and these differences may vary with management practices, weather patterns, soil conditions, and other environmental and management practices. Replicated trials that take into account field variability are more reliable than non-replicated trials and improve the confidence of implementing of new practices for profitable crop production.

(Written by Bill Stangel and Joe Lauer, WAPAC Executive Council Members, December 2003. Corn price and drying cost updated for 2010.)

WAPAC Trial Information: 90 day

Location	tri_id		Planting Date Fall and Soil test Fertilizer (lb/a)									
Cooperator	Soil series	Previous	Row width	Harvest Date	Spring Tillage	pН	Р	Κ	Ν	Р	K	Weed
Consultant	Soil texture	crop	Population		Cultivation		ppm		Mic	ro + Ma	anure	Control
Athens, WI	901	Spring wheat	4/22/2010	10/22/2010	Fall disk	6.6	26	111	99	36	100	Integrity 13 oz
Albrecht Family Farms Ltd			30		Finisher							Gmax Lite 1 pt
Paul Sturgis			30,000									Buccaneer Plus 1 qt
Athens, WI	902	Corn silage	5/6/2010		Fall chisel	6.8	16	56				Buccaneer Plus 1 qt
Rausch Farms	Fenwood		30		Spring Field							Capreno 3 oz
Paul Sturgis			32,000		Cultivator							
Bonduel, WI	903	Wheat	4/26/10	12/6/2010	Fall Deep Till	7.2	17	59				Lumax 2 qt
Sorenson Grain			30		Mulch Finisher							Roundup 1 qt
Phil Stern			32,500									
Clintonville, WI	904	Soybeans	5/10/2010	11/7/2010	Fall In-line Ripper	6.8	14	99	102	56	90	SureStart 1 qt
Paul Kirchner	Tilleda		30		Field							Credit Extra 1 qt
Mike Kiddy	Loam		32,00		Cultivate							Diablo 2 oz
												AMS 3#
Crivitz, WI	905	Corn	5/6/2010	10/29/2010	No Till	6.4	26	66				SureStart 1.5 pt
Joe Dudkiewitz	Sandy loam		30									Rage-D Tech 16 oz
Bill Schaumberg			30,000									Bucaneer Plus 1 qt
												Veracity 9.6 oz
												NIS 1 qt
												AMS 2 #
Seymour,WI	906	Alfalfa		10/6/2010	Spring Field	7.2	18	89	156	51	110	Keystone LA 2 qt
Oneida Nation Farms	Silt loam		30		Cultivator							Hornet WDG 3 oz
Bill Schaumberg			32,500		Spring Rotary Hoe							Status 3 oz
												Crop oil 1/2 gal/100
Pulaski, WI	907	Soybeans	5/23/2010	11/10/2010	No Till	7.3	10	48	118	71	73	Lumax 1 qt
Lee & Cindy Herman	Onaway		30									Buccaneer 1 qt
Jeff Polenske	Fine sdy loam		30,000									
Pulaski,WI	908	Wheat	5/26/2010	11/2/2010		7.4	20	69	90	50	160	Lumax 2 qt
Ullmer Acres	Yahara		30									Roundup 1 qt
Nathen Nysse	Sandy loam		32,000									

WAPAC Trial Information: 95 day

Location	tri_id		Planting Date	!	Fall and	S	oil test		Fer	tilizer	(lb/a)	
Cooperator	Soil series	Previous	Row width	Harvest Date	Spring Tillage	pН	Р	Κ	Ν	Ρ	K	Weed
Consultant	Soil texture	crop	Population		Cultivation		ppm		Micr	ю + М	anure	Control
Appleton,WI	951	Corn	4/20/2010	10/12/2010	No Till	7	36	168	173	84	281	Cornerstone Plus 2 qt
Dave McCarthy	Hortonville		30									Parallel 1 pt
Jeff Polenske	Silt loam		28,828									Orical 1 pt
Appleton,Wi	952	Alfalfa	5/11/2010	10/15/2010	Fall Chisel	7.6	22	116	190	47	157	Buccaneer Plus 1 qt
Darrell & Carol Vosters	Kewaunee		30		Spring Field							Lumax 2 1/2 qt
Jeff Polenske	Silty clay loam		32,000		Cultivator							
Hortonville, Wi	953	Wheat	4/30/2010	10/4/2010	Fall Chisel	7.5	28	166	200	60	220	Keystone L.A. 1.8 qt
Steve Jack	Hortonville		30		Spring field							Hornet WDG 2.8 oz
Paul Knutzen					Cultivator							
Keil, WI	954	Wheat	5/6/2010	10/12/2010	Fall Chisel	7.4	15	135				Acetochlor 3/4pt Pre
Mark Litz	Boyer		30		Spring Field				8650) gal N	lanure	Glyphosate 24 oz
Steve Hoffman			32,000		Cultivator							Yukon 2 oz
Little Chute, WI	955	Soybeans	5/26/2010	11/2/2010	Spring Field	7.1	20	126	179	32	60	Harness Extra 1.2 qt
Marv Van Groll	Silt loam		30		Cultivator							Hornet WDG 1 oz
Bill Schaumberg			32,500									Roundup Wmax 22 oz
												NIS 1 qt
												AMS 2 lbs
Manawa,WI	956	Alfalfa	5/18/2010	10/25/2010	Chisel	6.7	24	180	164	44	145	Lumax 2 qt
Dan Boerst	Hortonville		30		Spring Field							
Mike Kiddy			32,500		Cultivator							
Manawa	957	Corn	5/2/2010	10/12/2010	Spring Chisel	6.9	112	259				Lumax 1 1/2 qt
Fietzer Farms	Hortonville		30		Spring Field				9000) gal N	lanure	Parallel 3/4 pt
Nathen Nysse	Silt loam		34,000		Cultivator 2x							Atrazine 1/2 #
Reedsville,WI	958	Alfalfa	5/25/2010	11/2/2010	Fall Chisel	7.3	13	93	48	40	60	Cornerstone 5 Plus 24 oz
Larry Krepline	Kewaunee		30		Spring Field							Status 2.5 oz
Carl Buchner	Loam		32,000		Cultivator							AMS/100 gal 9 lbs
Seymour,WI	959	Corn	4/28/2010	11/2/2010	Spring Field	7.7	18	101	143	71	261	Lumax 2.5 qt
Marvin & Ann Marie	Onaway		30		Cultivator							
Karweick	Silt loam		32,500									
Bill Schaumberg												
Seymour,WI	9510	Soybeans	4/30/2010	11/20/2010	Fall Chisel	7.5	11	103				Integrity 12 oz
Dale Kropp			30		Spring Tillage							Guardsman 16 oz
Phil Stern			32,000		Cultivation (2X)							

WAPAC Trial Information: 95 day cont:

Location	tri_id		Planting Date	•	Fall and	Sc	oil test		Fer	tilizer ((lb/a)	
Cooperator	Soil series	Previous	Row width	Harvest Date	Spring Tillage	рΗ	Ρ	Κ	Ν	Р	K	Weed
Consultant	Soil texture	crop	Population		Cultivation	p	opm		Mic	ro + Ma	anure	Control
Seymour,WI	9511	Corn	4/21/2010	10/19/2010	Fall Chisel	7.1	15	76	128	93	46	Lumax 2 1/2 qt
Pat & Karen Van Lanen	Menominee		30		Spring Field							
Jeff Polenske	Silt loam		34,000		Cultivator							
Seymour,WI	9512	Soybeans	5/5/2010	11/20/2010	Fall Chisel	7.4	16	84	129	120	250	Halex GT 3 pt
Dave Wichman			30		Field							Atrazine >5 #
Phil Stern			31,000		Cultivator (2X)							Nis/ams
Weyauwega, WI	9513	Soybeans	5/3/10	10/22/2010	Fall Chisel	6.9	49	179	148	15.5	0	Keystone LA 1.25 qt
John Hoag	Oshkosh		36		Field							Cornerstone+ 1 qt
Mike Kiddy	silty clay loam		27,000		Cultivation (2X)							Diablo 2 oz

WAPAC Trial Information: 100 day

Location	tri_id		Planting Date)	Fall and		Soil test		Fertilize		(lb/a)	
Cooperator	Soil series	Previous	Row width	Harvest Date	Spring Tillage	pН	Р	Κ	Ν	Р	K	Weed
Consultant	Soil texture	crop	Population		Cultivation		ppm	-	Micr	o + Ma	inure	Control
Black Creek, WI	1001	Corn silage	5/7/2010	11/6/2010	Spring Field	7.7	17	73	190	151	345	Parralel 1.3 pt
Roger & Joann Seitz	Sandy loam		30		Cultivator 2x							Hornet WDG 3 oz
Bill Schaumberg			32,500									Atrazine 1/2 lb
Clintonville,WI	1002	Corn	4/29/2010	11/20/2010	Field	6.7	24	100	156	55	290	Volley ATZ Lite 1.75 qt
Doug Behnke	Hortonville		30		Cultivation							AMS 3 #
Mike Kiddy			32,000									Hornet 2.75 oz
Deerfield,WI	1003	Soybeans	4/29/2010	10/29/2010	No-till	6.4	17	105	126	67	141	Harness 2 pt
Russ Dahl	Marshan		30									Glyphosate 1 qt
Tom Novak			32,000									2,4-D ester 1 pt
												Ignite 22 oz
DePere,WI	1004	Alfalfa	5/24/2010	10/19/2010	Fall Chisel	6.7	8	78	190	0	0	Lumax 2 1/2 qt
Robertson Bros	Oshkosh		30									
Jeff Polenske	Silt loam		32,000									
Markesan, WI	1005	Alfalfa	5/10/10	11/3/2010	No till	7.1	27	109	112	41	165	Fall Roundup 2 1/2 qt
Gale Jahnke	Kidder		30									Fall 2, 4-D 1 pt
Foxview Farms	Loam		28,900									Roundup 1 qt
Rachel Mueller												SureStart 3 pt
												NIS 1 pt
												AMS 17#
Markesan, WI	1006	Corn	5/6/2010	10/15/2010	Chisel Plow	6.4	20	159	126	17	87	SureStart 2 pt
Russell Zastrow	Plano		36		Spring Disk							Roundup 1 qt
Rachel Mueller	Loam		32,000		Spring Mulcher							
Whitewater,WI	1007	Soybeans	4/28/2010	10/15/2010	Spring Soil	6.1	39	136	129	66	80	Volley ATZ Light 2 pt
Tom Hoffman	Plano		30		Finisher					12S		Glyphosate 1 qt
Tom Novak			32,000									Status 3 oz
Wrightstown,WI	1008	Alfalfa	5/21/2010	10/25/2010	Fall Chisel	7	18	83				TopNotch 3 pt
New Horizon Dairy	Silt loam		30		Spring Field							Callisto 3 oz
Nathen Nysse			32,000		Cultivator 2x							Atrazine 3/4 lb

WAPAC Trial Information: 105 day

Location	tri_id		Planting Date		Fall and	Sc	oil test		Fe	rtilizer (lb/a)	
Cooperator	Soil series	Previous	Row width	Harvest Date	Spring Tillage	pН	Р	Κ	Ν	Р	Ŕ	Weed
Consultant	Soil texture	crop	Population		Cultivation		ppm	-	Mic	ro + Ma	anure	Control
Cambridge,WI	1051	Alfalfa	4/28/2010	10/19/2010	Fall Burndown	6.4	27	133	229	72	191	Roundup 48 oz fall
Jeff Notstad	Rockton		38		Spring Burndown					1 ZN		Express .25 oz fall
A. D. Cole			33,000		No-till							2,4-D LV 1 pt fall
												Gramoxone 1.75 oz spring
												Harness 1 pt spring
												Princep 90 .55# spring
												Roundup 21 oz post
Elkhorn,WI	1052	Soybeans	4/30/2010	10/20/2010	No till	6.6	54	174	154	80	212	Glyphosate 1 qt pre
Lauderdale Farms	Plano		30									2,4-D ester 1 pt pre
Tom Novak			32,000									Harness 2 pt pre
												Status 3 oz post
												Glyphosate 1 qt post
Lodi,WI	1053	Corn	4/29/2010	10/2/2010	Spring Field	6.8	69	230	180	80	191	Harness 7EC 1 pt pre
Lockner Dairy	Mt. Carrol		30		Cultivator					1ZN	20S	Hornet WDG 2 oz pre
A. D. Cole			36,000									Roundup Weathermax
									48	48	126	21 oz post
Prairie Du Sac,WI	1054	Soybeans	5/10/2010	10/21/2010		6.8	35	158	162	58	136	2,4-D LV4 24 oz
Dairy Forage			30									Harness 2.5 pt
Research Center			34,500									Hornet 4 4.5 oz
A.D. Cole												

	Hybrid	Stand, No./A†	Lodged, %†	Test Wt, Ibs/bu†	Grain Moisture, %†	Yield, Bu/A @ 15%†	Gross Margin,
Brand							\$/A†,‡
NK	N29T-GT/CB/LL Brand	29386 *	5.3	53.8	20.3	177 *	784 *
Renk	RK434RR	29421 *	2.1 *	55.0	19.7 *	171 *	767 *
Legend	LR9993VT3	29279 *	2.7 *	56.2	19.9	169 *	759 *
Dairyland	St9789	29350 *	2.8 *	54.7	20.7	170 *	754 *
Croplan	3114VT3	29136 *	2.9 *	54.6	20.0	168	752 *
Garst	89K65 3000GT Brand	29493 *	2.8 *	55.5	19.7 *	167	749 *
Trelay	2VT531	29564 *	2.7 *	57.1 *	19.1 *	163	738
Pioneer	P8906HR	29671 *	2.2 *	55.4	19.7 *	161	723
Golden Harvest	H-6455 3000GT Brand	29564 *	3.8 *	54.4	20.0	160	716
Number of locat	ions	7	7	7	7	7	7
Mean		29429	3.0	55.2	19.9	167	749
LSD(10%)		665	1.8	0.6	0.7	8	35

WAPAC 2010 Corn Trials: 90-day RM Data - Means Across Locations.

† Means followed by a star are not significantly different than the "best" at the 10% level of significance. The "best" is the maximum value for all measures except lodged and moisture, where the best value is the minimum value.

‡ Gross Margin = Gross Income - drying cost - test weight dockage, where

Gross Income is the yield times \$4.75/bu, and

drying cost is 4¢/bu wet corn for each point above 15%.

test weight dockage is 1¢/lb/bu from 53.9 to 52; 3¢/lb/bu from 51.9 to 50; and 5¢/lb/bu below 50.

WAPAC 2010 Corn Trials: 90 day RM Yields by Location.

			Location Yield, bu/a @ 15% moisture										
Brand	Hybrid	901 Athens	902 Athens	903 Bonduel	904 Clintonville	905 Crivitz	906 Seymour	907 Pulaski†	908 Pulaski				
Trelay	2VT531	172	181	190	173	142	165	93	118				
Croplan	3114VT3	182	182	207	177	150	162	77	116				
Garst	89K65 3000GT Brand	195	171	193	181	137	175	102	112				
Golden Harvest	H-6455 3000GT Brand	172	186	191	174	147	143	106	110				
Legend	LR9993VT3	172	163	201	176	149	196	71	125				
NK	N29T-GT/CB/LL Brand	192	209	209	193	151	172	78	111				
Pioneer	P8906HR	175	167	200	181	152	150	84	103				
Renk	RK434RR	188	180	208	188	156	173	66	102				
Dairyland	St9789	186	188	202	187	149	156	88	120				
Mean		182	181	200	181	148	166	85	113				
Number of reps		2	2	2	2	2	2‡	2	2				

† The data from this site were not statistically compatible with the other sites so it was omitted from combined table.

† The Garst, Legend, and NK entries only had one rep due to severe lodging to one section of trial.

	Hybrid	Stand, No./A†	Lodged, %†	Test Wt, Ibs/bu†	Grain Moisture,	Yield, Bu/A	Gross
	-	· -			%†	@ 15%†	Margin,
Brand							\$/A†,‡
Dairyland	St9395	29542	5.9 *	54.6	17.9 *	185 *	853 *
Croplan	3514VT3	30500 *	6.1 *	56.6 *	19.4	187 *	848 *
	H-7044 3000GT	29639	2.5 *	54.8	19.2	181 *	822 *
Golden Harvest	Brand						
Legend	LR9895VT3	30000	11.4	54.9	18.7	178	814
-	88R16 GT/CB/LL	30278 *	8.1	55.1	17.9 *	175	807
Garst	Brand						
Pioneer	P9380XR	30167	7.7 *	54.6	18.1 *	173	795
Renk	RK501VT3	30625 *	7.3 *	55.8	18.3 *	173	795
Trelay	4VT456	31222 *	9.9	55.3	18.6	174	793
Number of locati	ons	9	9	12	12	12	12
Mean		30247	7.4	55.2	18.5	178	816
LSD(10%)		972	5.2	0.5	0.4	8	35

WAPAC 2010 Corn Trials: 95-day RM Data - Means Across Locations.

† Means followed by a star are not significantly different than the "best" at the 10% level of significance. The "best" is the maximum value for all measures except lodged and moisture, where the best value is the minimum value.

‡ Gross Margin = Gross Income - drying cost - test weight dockage, where

Gross Income is the yield times \$4.75/bu, and

drying cost is 4¢/bu wet corn for each point above 15%.

test weight dockage is 1¢/lb/bu from 53.9 to 52; 3¢/lb/bu from 51.9 to 50; and 5¢/lb/bu below 50.

WAPAC 2010 Corn Trials: 95-day RM Yields by Location.

		Location Yield, bu/a @ 15% moisture								
		951	952	953	954	955	956			
Brand	Hybrid	Hortonville	Appleton	Hortonville†	Keil	Little Chute	Manawa			
Croplan	3514VT3	210	187	187	190	179	193			
Dairyland	St9395	216	165	219	185	147	192			
Garst	88R16 GT/CB/LL Brand	225	177		162	120	192			
Trelay	4VT456	216	175		171	166	189			
Golden Harvest	H-7044 3000GT Brand	217	168	186	202	166	192			
Legend	LR9895VT3	216	175	194	185	152	182			
Pioneer	P9380XR	215	179	198	171	164	183			
Renk	RK501VT3	224	184	184	191	171	187			
Mean		217	176	195	182	158	189			
Number of reps		2	2	2	2	2	2			

		Location Yield, bu/a @ 15% moisture									
		957	958	959	9510	9511	9512	9513			
Brand	Hybrid	Manawa	Reedsville	Seymour	Seymour	Seymour	Seymour	Weyauwega			
Croplan	3514VT3	205	159	219	185	191	180	151			
Trelay	4VT456	199	166	215	175	182	170	143			
Garst	88R16 GT/CB/LL Brand	204	163	203	135	197	172	155			
Golden Harvest	H-7044 3000GT Brand	190	162	213	131	197	188	133			
Legend	LR9895VT3	210	144	215	166	186	147	135			
Pioneer	P9380XR	195	161	209	143	182	166	162			
Renk	RK501VT3	189	157	213	128	165	172	132			
Dairyland	St9395	202	170	208	125	190	174	123			
Mean		199	160	212	148	186	171	142			
Number of reps		2	2	2	2	2	2	2			

† This site was missing two hybrids so it could not be used in the combined analysis table.

	Hybrid	Stand, No./A†	Lodged, %†	Test Wt, Ibs/bu†	Grain Moisture,	Yield, Bu/A	Gross
Brand					%†	@ 15%†	Margin, \$/A+.±.&
Tralau	51/0000	00.450.*	о г +	50.0	40.0 *	040 *	÷···;;;
Trelay	5VP688	30,450 °	0.5 ~	50.0	16.9 °	212 *	985 °
Croplan	388TS	30,350 *	1.1 *	55.4	17.5 *	202 *	935
	87T18 3000GT	28,250	0.9 *	59.8 *	18.9	204 *	928
Garst	Brand						
Renk	RK619SS	30,150 *	0.5 *	56.4	18.9	202 *	918
Legend	LR9798VT3	30,050 *	0.5 *	59.2 *	17.2 *	195	908
	N39M-3000GT	29,700 *	0.5 *	57.1	17.5 *	195	901
NK	Brand						
Pioneer	37Y14	30,700 *	0.5 *	58.1	17.3 *	187	869
	H-7633 3000GT	29,550 *	1.4 *	56.2	18.7	186	848
Golden Harve	est Brand						
Dairyland	St9500Q	29,400	0.5 *	57.1	19.8	187	841
Number of loc	cations	5	4	5	6	6	6
Mean		29,844	0.7	57.3	18.1	197	904
LSD(10%)		1,154	1.0	1.0	0.8	11	45

WAPAC 2010 Corn Trials: 100-day RM Data - Means Across Locations.

† Means followed by a star are not significantly different than the "best" at the 10% level of significance. The "best" is the maximum value for all measures except lodged and moisture, where the best value is the minimum value.

‡ Gross Margin = Gross Income - drying cost - test weight dockage, where

Gross Income is the yield times \$4.75/bu, and

drying cost is 4¢/bu wet corn for each point above 15%.

test weight dockage is 1¢/lb/bu from 53.9 to 52; 3¢/lb/bu from 51.9 to 50; and 5¢/lb/bu below 50.

§ No test weight data was available from one site so there was no test weight dockage from that site.

WAPAC 2010 Corn Trials: 100 day RM Yields by Location.

				Locati	on Yield, b	u/a @ 15% n	noisture		
		1001	1002	1003	1004	1005	1006	1007	1008
Brand	Hybrid	Black Creek	Clintonville	Deerfield	De Pere	Markesan	Markesan	Whitewater	Wrightstown
Pioneer	37Y14	154	189	163	157	209	210	197	165
Croplan	388TS	206	209	189	160	211	186	214	181
Trelay	5VP688	213	212	201	149	228	200	217	175
Garst	87T18 3000GT Brand	197	211	198	158	220	195	204	175
Golden Harvest	H-7633 3000GT Brand	151	188	185		207	189	194	
Legend	LR9798VT3	157	201	190	143	216	205	202	172
NK	N39M-3000GT Brand	170	195	187	163	217	196	202	164
Renk	RK619SS	210	195	197	154	218	185	207	171
Dairyland	St9500Q	181	188	182	150	200	187	185	144
Mean		182	199	188	154	214	195	202	168
Number of reps		2	2	2	2	2	2	2	2

	Hybrid	Stand, No./A†	Lodged, %†¶	Test Wt, lbs/bu¶	Grain Moisture,	Yield, Bu/A	Gross	
	-				%†	@ 15%†	Margin,	
Brand					·		\$/A†‡	
Trelay	6ST576	32981 *			17.8	211 *	969 *	
Croplan	5338VT3	32958 *			17.4	207 *	957 *	
Renk	RK670VT3	32764 *			16.6 *	203 *	946 *	
Pioneer	35F44	33023 *			18.6	201	916	
	H-8239 3000GT	28449			17.8	199	912	
Golden Harvest	Brand							
AgriGold	AG6309STX	32254 *			17.8	197	904	
Dairyland	St9703Q	34037 *			18.0	195	895	
-	N53W-3000GT	32264 *			17.4	194	892	
NK	Brand							
	PIP5803-	34407 *			16.9 *	188	874	
PIP	3000GT							
	86J49 3000GT	31736 *			16.9 *	184	853	
Garst	Brand							
Number of locations		3			4.0	4	4	
Mean		32487			17.5	198	571	
LSD(10%)		2910			0.8	9	65	

WAPAC 2010 Corn Trials: 105-day RM Data - Means Across Locations.

† Means followed by a star are not significantly different than the "best" at the 10% level of significance. The "best" is the maximum value for all measures except lodged and moisture, where the best value is the minimum value.

¶ Insufficient data for an analysis across locations.

‡ Gross Margin = Gross Income - drying cost, where

Gross Income is the yield times \$4.75/bu, and

drying cost is 4¢/bu wet corn for each point above 15%.

WAPAC 2010 Corn Trials: 105 day RM Yields by Location.

		Location Yield, bu/a @ 15% moisture				
		1051	1052	1053	1054	
Brand	Hybrid	Cambridg	Elkhorn	Lodi	Prairie Du Sac	
Pioneer	35F44	194	187	223	201	
Croplan	5338VT3	205	191	227	204	
Trelay	6ST576	196	187	239	222	
Garst	86J49 3000GT Brand	178	165	202	191	
AgriGold	AG6309STX	181	167	235	206	
Golden Harvest	H-8239 3000GT Brand	186	180	219	210	
NK	N53W-3000GT Brand	185	165	222	202	
PIP	PIP5803-3000GT	186	174	193	198	
Renk	RK670VT3	193	192	217	210	
Dairyland	St9703Q	193	172	218	199	
Mean		190	178	219	204	
Number of reps		2	2	2	3	

Thank you to everyone who contributed to the success of the 2010 WAPAC Corn Trials!

Data Analysis

Dr. Jon Baldock, Research Director, AgStat, Verona, Wisconsin

Seed Company Sponsors

Agrigold - Dave Welsh Croplan Genetics – Pat Van Duerzen Dairyland Seed – Kevin Naze Partners in Production & Legend Seeds -Mike Haedt and Jack Kaltenberg Pioneer – Matt Pauli and Tim Mansell Renk – Jeff Renk Syngenta Seeds (NK, Golden Harvest and Garst) - Mike Weiss Trelay-Kevin Schmitz

On-Farm Trial Coordinators and Participating Growers

• Carl Buchner – Buchner Agronomy Consulting, Whitelaw, WI

1.) 95-day: Larry Krepline, Reedsville, WI

- A.D. Cole ITAC of Wisconsin,
- Prairie du Sac, WI
- 1.) 105-day: Jeff Notstad, Cambridge, WI
- 2.) 105-day: Lockner Dairy, Lodi, WI
- 3.) 105-day: Dairy Forage Research Center, Prairie du Sac, WI
- Steve Hoffman, Hoffman Crop Consulting, Manitowoc, WI
- 1.) 95-day: Mark Litz, St. Nazianz, WI
- Mike Kiddy Kiddy Crop Consulting, New London, WI
- 1.) 90-day: Paul Kirchner, Clintonville, WI
- 2.) 95-day: Dan Boerst, Manawa, WI
- 3.) 95-day: John Hoag, Weyauwega, WI
- 3.) 100-day: Doug Behnke, Clintonville, WI
- Paul Knutzen Knutzen Crop Consulting, New London, WI
- 1.) 100-day: Steve Jack, Hortonville, WI
- Rachel Mueller, Cornerstone Crop Consulting, Princeton, WI

1.) 100-day: Gale Jahnke, Foxview Farms, Markesan, WI

2.) 100-day: Russell Zastrow, Markesan, WI

On-Farm Trial Coordinators and Participating Growers, continued

- Tom Novak Total Crop Management, Sullivan, WI
- 1.) 100-day: Russ Dahl, Deerfield, WI
- 2.) 100-day: Tom Hoffman, Whitewater, WI
- 3.) 105-day: Lauderdale Farms, Elkhorn, WI
- Nathen Nysse Polenske Agronomic Consulting, Hortonville, WI
- 1.) 90-day: Ullmer Acres, LLC, Pulaski, WI
- 2.) 95-day: Fietzer Dairy Farms, Manawa, WI
- 3.) 100-day: New Horizons Dairy, Wrightstown, WI

• Jeff Polenske – Polenske Agronomic Consulting, Appleton, WI

- 1.) 90-day: Lee & Cindy Herman, Pulaski, WI
- 2.) 95-day: Dave McCarthy, Appleton, WI
- 3.) 95-day: Darrell & Carol Vosters, Appleton, WI
- 4.) 95-day: Pat & Karen Van Lanen, Seymour, WI
- 5.) 100-day: Robertson Brothers Dairy, DePere, WI
- Bill Schaumberg Polenske Agronomic Consulting, DePere, WI
- 1.) 90-day: Joe Dudkiewicz, Crivitz, WI
- 2.) 90-day: Oneida Nation Farms, Seymour, WI
- 3.) 95-day: Marv Van Groll, Little Chute, WI
- 4.) 95-day: Marvin & Ann Marie Kawieck, Seymour, WI
- 5.) 100-day: Roger & Joann Seitz, Black Creek, WI
- Phil Stern Stern Crop Consulting, Bonduel, WI
- 1.) 90-day: Sorenson Grain, Bonduel, WI
- 2.) 95-day: Dale Kropp, Seymour, WI
- 3.) 95-day: Dave Wichman, Seymour, WI
- Paul Sturgis Croptech Agronomics, Vesper, WI
- 1.) 90-day: Albrecht Family Farms Ltd, Athens, WI
- 2.) 90-day: Rausch Farms, Athens, WI

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Links to the WAPAC Corn Trails are available on the WAPAC website: **www.wapac.info** under the Corn Trials tab, and also on the University of Wisconsin Extension Corn Agronomy website: **http://corn.agronomy.wisc.edu** under the Hybrid Trials tab.