

MSU Extension Publication Archive

Archive copy of publication, do not use for current recommendations. Up-to-date information about many topics can be obtained from your local Extension office.

Michigan Corn Production Hybrids Compared

Michigan State University Extension Service

Kurt D. Thelen, William D. Widdicombe, L. Williams, Crop and Soil Science

Issued December 2010

48 pages

The PDF file was provided courtesy of the Michigan State University Library

Scroll down to view the publication.

2010 Michigan Corn Hybrids Compared



CORN GRAIN PROFITABILITY IN THE NORTHERN CORN BELT IMPROVES FROM SELECTING EARLIER MATURING HYBRIDS.....PAGE 30

Extension Bulletin E-431 December 2010

MICHIGAN STATE
UNIVERSITY
EXTENSION

COMPANY INDEX

BRAND	CONTACT	BRAND	CONTACT	BRAND	CONTACT
AGRA	AGRA Solutions 23778 Delphos Jennings Road Delphos, OH 45833 www.agrasolutions.com	G2 GENETICS	NuTech Seed, LLC 415 South Duff Ave., Suite C Ames, IA 50010 www.yieldleader.com	NUTECH	Nutech Seed, LLC 415 South Duff Ave., Suite C Ames, IA 50010 www.yieldleader.com
AGRIGOLD	AgriGold Hybrids 5381 Akin Rd St. Francisville, IL 62460 www.agrigold.com	GOLDEN HARVEST	Syngenta Seed 11055 Wayzata Blvd. Minnetonka, MN 55305 www.goldenharvest.com	PIONEER	Pioneer Hi-Bred Int'l 59 Greif Parkway, Ste. 200 Delaware, OH 43015 www.pioneer.com
AGVENTURE	AgVenture of Michigan P.O. Box 36 Chesaning, MI 48616 www.AgVenture.com	GREAT LAKES	Great Lakes Hybrids 9915 West M-21 Ovid, MI 48866 www.greatlakeshybrids.com	RENK	Renk Seed Company 6809 Wilburn Road Sun Prairie, WI 53590 www.renkseed.com
BAYSIDE	Bayside Seeds, LLC 259 Bowker Road Munger, MI 48747 www.baysideseeds.com	HERITAGE SEEDS	Heritage Seeds 371 N. Diener Road Reynolds, IN 47980 www.heritageseeds.com	RUPP	Rupp Seeds, Inc. 17919 Co. Rd. B Wauseon, OH 43567 www.ruppseeds.com
BECK	Beck's Hybrids 6767 E. 276th Street Atlanta, IN 46031 www.beckshybrids.com	HYLAND SEEDS	Hyland Seeds 1015 N. 51st St, Suite E Grand Forks, ND 58203 www.hylandseeds.com	SEED CONSULTANTS	Seed Consultants Inc. P.O. Box 370, 648 Miami Trace Rd. SW Washington Cr. Hse., OH 43160 www.seedconsultants.com
CHANNEL	Channel Bio Corp. LLC 612 E. Dunlap St. P.O. Box 157 Kentland, IN 47951 www.channelbio.com	INTEGRA SEED	Wilbur-Ellis Company 4160 10 Mile Road NW Sparta, MI 49345 www.wilburellis.com	STEWART	Stewart Seeds 2230 East County Rd. 300 N Greensburg, IN 47240 www.stewartseeds.com
DAIRYLAND	Dairyland Seed P.O. Box 958 West Bend, WI 53095 www.dairylandseed.com	LEGACY SEEDS	Legacy Seeds, Inc. 1937 Spindt Drive Waupaca, WI 54981 www.legacyseeds.com	STEYER	Steyer Seeds 6154 N. County Road 33 Tiffin, OH 44883 www.steyerseeds.com
DEKALB	Monsanto Company 800 N. Lindbergh Blvd. St. Louis, MO 63167 www.asgrowanddekalb.com	MASTERS CHOICE	Masters Choice 3010 ST. RT. 146 E Anna, IL 62906 www.Seedcorn.com	WELLMAN	Wellman Seeds, Inc. 23778 Delphos Jennings Rd. Delphos, OH 45833 www.wellmanseeds.com
DYNA-GRO	Crop Production Services 443 Allenby Drive Marysville, OH 43040 www.dyna-groseed.com	MYCOGEN	Mycogen Seeds 9330 Zionsville Road Indianapolis, IN 46268 www.mycogen.com	WOLF RIVER	Wolf River Valley N2976 County M White Lake, WI 54491 www.wolfrivervalleyseeds.com
GARST	Syngenta Seeds 11055 Wayzata Blvd. Minnetonka, MN 55305 www.garstseed.com	NK BRAND	Syngenta Seeds Inc. 11055 Wayzata Blvd. Minnetonka, MN 55305 www.nk-us.com		

To obtain additional copies of this bulletin please contact the Michigan State University Extension Bulletin Office at the following:

MSU BULLETIN OFFICE
 117 Central Services Building
 Michigan State University
 East Lansing, MI 48824
 Phone: 517-353-6740
 Fax: 517-353-7168

Cover Photo: Arial view of the Montcalm Research Farm, Entrican MI. Photo looking south toward the farm, was taken by Chris Long, MSU Potato Specialist. Top Left clockwise you can see Dry Bean, Western Bean Cutworm, Potato, Weed Control and Corn Grain research.

2010

MICHIGAN CORN PERFORMANCE TRIALS

*K. Thelen, W. D. Widdicombe and L. Williams
Department of Crop and Soil Sciences
Michigan State University*

Introduction

The Michigan State University Department of Crop and Soil Sciences conduct hybrid corn trials each year in cooperation with MSU Extension, seed corn companies and farmers to determine performance.

Entries

Seed companies are invited to enter hybrids in the trials; a fee is charged to cover expenses incurred while conducting the trials. Separate indexes for grain and silage provide a list of all hybrids entered in the 2010 trials (pg. 28 and 35, respectively). Fourteen grain and ten silage locations were planted. A total of 361 hybrids from 26 seed companies, (29 brand names), make up the 587 entries which translates to 6,748 separate county plots. Company names used in association with hybrid numbers refer to the brand. The hybrid numbers are the companies designations.

Hybrids having a seed-applied insecticide that may enhance yield are listed in the table column TRT (Treatment). The "TRAIT" column uses code numbers, listing the hybrid quality traits provided by the company. Treatment and Trait codes are listed in the tables on page 23.

How to Use This Bulletin

Tables list hybrids alphabetically and contain yield results for each location, plus zone averages. Complete one- and two-year yield results are listed in tables for each zone where data is available. One-year single-site results are less reliable than multiple year and multiple location averages, and should be interpreted with more caution. Confidence in corn performance data increases as the number of years and the number of testing locations increase. Results for corn grain and corn silage trials are also listed on our Web site:

<http://www.css.msu.edu/varietytrials/>

The results shown are the average of four replications grown in close proximity to one another. Two or more plots of the same hybrid in the same field may produce somewhat different results because of uncontrolled variability in the soil and other environmental factors. Replication and randomization of the entries are two

methods employed to reduce this variation. Because these methods do not eliminate all variables, the magnitude of difference necessary for statistical significance has been calculated for yield, moisture content, and test weight. The value calculated as the least significant difference (LSD) is the amount an individual hybrid would have to differ from another hybrid in the same test to be considered significantly different from that hybrid. The CV, or coefficient of variability, is indicative of a trial's precision. Trials with low levels of error variation have lower CV values.

The highest yielding hybrid in each study is indicated with a double asterisk (**) in each table, hybrids that are not significantly different from the highest yielding hybrid are indicated with a single asterisk (*). Other agronomic information relative to each trial is given in tables B and C. Fertilizer amounts are shown as total pounds per acre of nitrogen, P₂O₅, and K₂O applied during the season.

Growing Conditions in 2010

This year seemed to be an optimal year for growing corn in Michigan. Although planting was delayed at a few locations throughout the state due to rain, most locations were planted in a timely fashion. The rain continued throughout the summer, for most locations, as needed; temperatures also seemed to cooperate most of the summer. Planting began April 28th in Cass County and finished in Lenawee County on June 1st. Locations needing Nitrogen applied had liquid 28% applied between June 16th and June 30th. The silage harvest began August 30th in Ingham County and ended on September 21st in Lenawee County. Grain harvest began on October 11th in Montcalm County with the Glyphosate Resistant Trial and finished with the Conventional Trial on November 4th in Montcalm County.

Table A (pg. 5) presents 2010 accumulations of temperature, rainfall, and heat units, plus their deviation from 30 year norms. Data is obtained from MSU weather stations located closest to each location. Actual accumulation at each location may vary slightly.

2010

GROWING SEASON WEATHER SUMMARY

Jeff Andresen, Extension Agricultural Meteorologist

*Department of Geography
Michigan State University*

The 2010 growing season was among the top 10 warmest on record across Michigan and much of the Great Lakes region, leading to rapid growth, development, and maturation of most crops. Prior to the growing season, the 2009/2010 winter was influenced by El Niño conditions across the equatorial Pacific Ocean which led to an active storm track across the central and southern U.S. In Michigan, mean temperatures for the winter season ranged from near normal across far southern sections of the state to much above normal across the north. Seasonal precipitation totals ranged from near normal across sections of Upper Michigan to less than 50% of normal over much of the Lower Peninsula. Off season soil moisture recharge was therefore somewhat lower than normal.

The growing season got off to an early start given abnormally warmer than normal weather during March and April. With the exception of a period of widespread heavy rain during the first week of April the warm weather allowed spring fieldwork to begin much earlier than normal and led to an early break of dormancy of most overwintering crops. Later in April, an upper air pattern developed across North America that would persist in several related forms for much of the late spring and summer seasons: troughing across western sections of the continental USA with broad ridging across central and eastern sections. This pattern led to southwesterly flow aloft across Michigan and to warmer than normal temperatures, and to a very active storm track across central sections of the country. Mean temperatures for the months of May, June, July, and August were all above normal, with departures generally ranging from 1-5 degrees F.

The active storm track led to unusually heavy rainfall to western and central sections of the Corn Belt region through much of the growing season. Records or near records for wettest summer season were set at locations just to our west in Minnesota, Iowa, Illinois, and Wisconsin. Some of this heavy precipitation fell as far eastward as Michigan during the late spring and early summer, but was not as much of a problem as would typically be the case due to the early completion of planting. Rainfall totals for the June-August period across the Midwest ranged from less than 10 inches (less than 50% of normal) in sections of the Ohio Valley to more than 25 inches (more than 200% of normal) across sections of Iowa and Wisconsin. In Michigan, totals for the same period ranged from just under 10 inches (near normal) in east central sections of the state to more than 20 inches (more than 150% of normal) at some Upper Peninsula locations. These totals are somewhat misleading, as much of the precipitation fell during the month of June, with much less during July and August. The heavy early season rainfall

combined with the warm temperatures led to rapid crop growth and development, and helped ease long term dryness across northern sections of the state.

Following a period of heavy rain during mid-June, precipitation during July and August was significantly lighter and less frequent across central and southern sections of Michigan through large sections of the Ohio Valley extending eastward into the mid-Atlantic states as the center core of the jet stream edged northward into Canada. Rainfall totals varied greatly by location during July and August, with some sections receiving heavy totals (e.g. northeastern Lower Michigan) while others observed less than half of normal amounts (e.g. northwestern and southeastern Lower Michigan). At the same time, temperatures remained at above normal levels on an almost continuous basis. As a result, potential evapotranspiration rates also remained at above normal levels with rapidly declining soil moisture levels leading to the development of drought stress symptoms during August.

During early September, the persistent jet stream pattern of much of the growing season finally transformed into a troughing pattern across Michigan and the Great Lakes region, leading to cooler than normal temperatures and to generally continued below normal precipitation totals. This weather combination favored early crop maturation, rapid grain drydown rates and progress of fall harvest activities, but also to increasing levels of dryness and drought-related problems. Fortunately, the most intense dryness occurred after most moisture-sensitive crop growth stages. By the end of September, much of southern Lower Michigan southward into the Ohio Valley was categorized as 'abnormally dry' or under 'moderate to severe drought' conditions. Normally such dry conditions would favor early frost, but the first killing frost/freeze of the fall season was 1-2 weeks later than normal across most areas of the state, further extending an already full growing season.

Overall for the 5-month May-September period, precipitation totals ranged from much above normal levels across northern sections of the state to below normal in southern sections. In contrast to the unusually cool 2009 growing season, mean temperatures were consistently above normal for much of the season. Growing degree day totals were also much above normal totals, in some cases more than 20% greater than normal. New records for greatest seasonal GDD accumulation were set at a few southern locations in the state. The early start of the season and the persistent warmth led to unusually rapid crop growth, development, maturation and drydown, saving most growers money in drying costs.

TABLE A.

GROWING SEASON SUMMARY - TEMPERATURE, PRECIPITATION AND GROWING-DEGREE-DAY ACCUMULATIONS

	COUNTY	MAY			JUNE			JULY			AUGUST			SEPTEMBER			SEASON		
		OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV
Zone 1	LENAWEE & WASHTENAW	61.6	58.3	3.3	70.5	67.8	2.7	74.9	71.7	3.2	72.0	69.9	2.1	62.1	62.6	-0.5	68.2	66.1	2.2
	TEMP	7.17	3.04	4.13	2.18	3.30	-1.12	3.54	3.73	-0.19	0.86	3.20	-2.34	1.33	2.62	-1.29	15.08	15.89	-0.81
	PPT	412	353	59	619	542	77	737	658	79	676	616	60	422	432	-10	2866	2601	265
	GDD																		
	BRANCH & CASS	61.6	59.2	2.4	70.5	68.4	2.1	74.5	71.9	2.6	72.5	70.1	2.4	63.1	63.3	-0.2	68.4	66.6	1.9
	TEMP	7.29	3.12	4.17	3.31	3.95	-0.64	3.24	3.79	-0.55	0.71	3.16	-2.45	1.34	3.01	-1.67	15.89	17.03	-1.14
Zone 2	WOOD (Bowling Green, OH)	62.8	60.1	2.7	72.8	69.8	3.0	76.5	73.4	3.1	74.5	70.9	3.6	64.1	64.1	-0.04	71.7	67.7	4.0
	TEMP	5.40	3.58	1.82	5.76	3.56	2.20	2.95	3.57	-0.62	1.09	3.36	-2.27	0.54	2.63	-2.09	15.74	16.70	-0.96
	PPT	411	360	51	674	551	123	779	682	97	734	628	106	430	430	-430	2598	2651	-53
	GDD																		
	KENT	59.6	57.4	2.2	67.1	67.1	0.0	73.7	71.2	2.5	73.8	69.5	4.3	63.5	61.9	1.6	67.5	65.4	2.1
	TEMP	5.14	2.86	2.28	8.91	3.68	5.23	4.44	2.95	1.49	1.88	3.14	-1.26	2.72	3.24	-0.52	23.09	15.87	7.22
Zone 3	INGHAM	60.4	57.5	2.9	68.4	67.0	1.4	72.9	70.7	2.2	71.7	69.0	2.7	61.1	62.0	-0.9	66.9	65.2	1.6
	TEMP	5.07	2.73	2.34	4.19	3.54	0.65	2.52	3.02	-0.50	1.34	3.12	-1.78	3.62	2.50	1.12	16.74	14.91	1.83
	PPT	390	338	52	563	530	33	708	640	68	678	598	80	373	418	-45	2712	2524	188
	GDD																		
	SAGINAW	61.6	58.6	3.0	69.1	68.2	0.8	74.6	72.1	2.5	73.5	70.2	3.3	61.1	62.9	-1.8	68.0	66.4	1.6
	TEMP	3.39	2.49	0.90	4.49	3.09	1.40	2.09	2.83	-0.74	2.64	3.29	-0.65	2.13	2.76	-0.63	14.74	14.46	0.28
Zone 4	HURON	60.5	55.2	5.3	65.7	64.9	0.8	72.0	69.3	2.7	71.5	67.8	3.7	60.4	61.0	-0.6	66.0	63.6	2.4
	TEMP	3.46	2.58	0.88	4.41	2.88	1.53	3.53	2.93	0.60	0.81	3.01	-2.20	2.94	2.67	0.27	15.15	14.07	1.08
	PPT	385	298	87	483	479	4	683	602	81	665	569	96	346	387	-41	2562	2335	227
	GDD																		
	MONTCALM	59.4	57.7	1.7	66.7	67.1	-0.4	72.7	71.0	1.7	71.5	69.3	2.2	59.2	61.6	-2.4	65.9	65.3	0.6
	TEMP	3.68	2.88	0.80	3.21	3.43	-0.22	2.14	2.50	-0.36	2.63	3.84	-1.21	1.88	3.12	-1.24	13.54	15.77	-2.23
Zone 5	MASON	57.3	54.4	2.9	63.8	63.6	0.2	71.5	68.5	3.0	71.0	67.2	3.8	58.3	60.2	-1.9	64.4	62.8	1.6
	TEMP	2.25	2.48	-0.23	4.64	2.93	1.71	3.22	2.18	1.04	2.79	3.79	-1.00	2.42	3.25	-0.83	15.32	14.63	0.69
	PPT	339	273	66	447	450	-3	675	587	88	656	552	104	325	365	-40	2442	2227	215
	GDD																		
	OGEMAW	58.7	52.0	6.7	64.5	61.7	2.8	70.6	66.6	4.0	70.1	64.9	5.2	57.0	57.2	-0.3	64.2	60.5	3.7
	TEMP	2.52	2.78	-0.26	6.52	3.12	3.40	8.55	3.11	5.44	1.66	3.23	-1.57	3.54	3.08	0.46	22.79	15.32	7.47
Zone 4	GRAND TRAVERSE	58.5	53.5	5.0	64.9	63.7	1.1	72.6	68.8	3.8	72.7	67.3	5.4	59.1	59.3	-0.2	65.5	62.5	3.0
	TEMP	3.89	251	138	459	413	46	644	534	110	633	496	137	292	317	-25	2417	2011	406
	PPT	355	273	82	471	454	17	704	587	117	698	552	146	323	348	-25	2551	2214	337
	GDD																		
	MENOMINEE	57.0	53.6	3.4	63.2	62.7	0.4	70.6	67.4	3.2	70.7	65.5	5.2	55.7	57.0	-1.3	63.4	61.2	2.2
	TEMP	2.07	3.57	-1.50	8.13	3.72	4.41	4.56	3.63	0.93	2.34	3.86	-1.52	6.34	3.60	2.74	23.44	18.38	5.06
Zone 5	DELTA	55.5	52.6	2.9	61.8	62.3	-0.5	69.2	65.7	3.5	69.5	65.2	4.3	55.1	57.7	-2.6	62.2	60.7	1.5
	TEMP	2.69	2.85	-0.16	6.39	3.06	3.33	5.47	3.57	1.90	1.13	3.08	-1.95	7.11	3.69	3.42	22.79	16.25	6.54
	PPT	310	263	47	395	419	-24	609	499	110	610	492	118	273	311	-38	2197	1984	213
	GDD																		

TEMP = Mean temperature (°F)

PPT = Precipitation (inches)

GDD = Growing Degree Day calculated at base 50°F, with an 86°F cutoff

OBS = Totals observed in 2010

NORM = Normals calculated over 30 year period (1951-1980)

DEV = Deviation of observed from normal

Table courtesy of MSU Agricultural Weather Office (517-355-0231)

2010 GRAIN PERFORMANCE TRIALS

Introduction

The grain index (pg.28) contains a list of all hybrids planted in the 2010 grain trials.

County results are reported in the following tables:

Tables 1E/1L Zone 1 - Branch, Cass and Washtenaw

Tables 2E/2L Zone 2 - Allegan, Ingham and Saginaw

Tables 3E/3L Zone 3 - Huron, Mason and Montcalm

Table 4 Zone 4 - Grand Traverse, Menominee (L) and Ogemaw

Table 5 Zone 5 – Delta and Menominee (E)

Tables 6E/6L Glyphosate Trial – Huron (Zone 3), Montcalm (Zone 3) and Saginaw (Zone 2)

The map of Michigan (page 7) shows each zone and the locations where the trials were located.

Methods

Three trial locations were planted in each of four maturity zones, zone 5 had two locations. These zones are based on available growing degree-day units established from long-term weather records. Hybrids entered in a zone were tested in each of the three designated locations. Entries for Zones 1, 2, and 3 are divided into two maturity groups (early and late) on the basis of maturity ratings (RM) provided by the seed companies. In Zones 4 and 5, all hybrids were tested in one group.

Four-row plots were used at all locations. The two center rows were harvested for yield. Plots were 22 feet long with 30-inch row spacing.

Experimental design, data acquisition, analysis of variance and data summarization were facilitated in part by AGROBASE Generation II™ (Agronomix Software, Inc., Winnipeg, Canada). The experimental layout was a four-replication, randomized complete block design. Hybrid performance is reported as the adjusted mean averaged together from four replicated plots.

Variety trials were conducted on farmers' fields and Michigan State University Experiment Stations. All hybrids in a location were managed the same, with the same fertilizers, population, date of planting, and other management practices. In the field, hybrids were identified only by a plot number to assure unbiased comparisons. Trials in Branch, Cass, Mason and Montcalm counties were irrigated.

Stand counts were recorded in June. Plots with stand counts higher than the desired population were thinned at this time. Average trial population plus the desired population rates are listed with other important agronomic information in Table B (pg. 25). Lodging measurements were made at harvest. All plants broken below the ear and/or leaning more than 45 degrees were counted. Plots were harvested mechanically. Moisture content and field weight were measured by a GrainGage™, a HarvestMaster System™ mounted on the plot combine. Grain yield is reported at a standard 15.5 percent moisture. Grain test weight is reported at harvest moisture. Automated test weight equipment loses some accuracy as harvest moistures increase. Test weight values should be used to determine relative rank and not as a precise weight.

Results

The tables report the following information about the hybrids tested:

1. Moisture content at harvest (%H₂O).
2. Yield (in bushels per acre) of shelled corn corrected to 15.5 percent moisture (Bu/A).
3. Test weight at harvest moisture (Twt).
4. Percent of stalk lodging (plants broken below the ear and/or 45 degrees off vertical at harvest) (%SL).
5. Percent stand of target population (%Std).

How to Choose a Hybrid

Adaptation

Local variations in weather, soil type, fertility, time of planting, and other conditions affect adaptation, so there's no substitute for observing individual characteristics while the plants are growing.

The best time to compare hybrids is usually in late August or early September as they approach maturity. Each year, demonstration plots containing each hybrid are planted at a limited number of test locations, usually one location per zone. In 2010, Hybrids were identified in Grand Traverse, Ingham, Menominee, Ogemaw, and Washtenaw Counties for public viewing with a scheduled field tour. Examining plant and ear characteristics can help you select hybrids suitable for your production system. (Yield results are not taken from the demonstration plot.)

Planting Rate

The number of seeds sown per acre in Michigan has increased steadily over the past several years. In general, modern corn hybrids can withstand the stress of higher plant populations better than earlier hybrids. However, increased planting rates are not a guarantee of increased yield. Check with your seed dealer for information on which hybrids perform better at higher populations when grown on your soil type. Most locations in these trials were planted at 36,000 plants per acre.

Maturity

Early-maturing hybrids are generally lower in moisture content than later-maturing hybrids at harvest. Differences among hybrids in rate of dry down in the field also affect moisture content at harvest.

It generally requires two days for grain moisture to fall 1 percent under optimum drying conditions. Corn is considered physiologically mature when a black layer of cells forms at the base of the kernel. This black layer is an indication of the end of active growth processes. At this time, kernel moisture will be between 32 and 35 percent.

For Grain

When you're selecting a hybrid, yield should not be the only consideration. A hybrid with lower grain moisture but above average yield will often have higher net returns than a top-yielding hybrid with higher grain moisture. A one-point increase in moisture requires approximately 2 more bushels in yield to break even. It is often better to choose earlier hybrids (below average moisture content) than later hybrids for grain. Data in the tables show that good yields do not necessarily depend on later maturity.

Seven Advantages of Early-Maturing Hybrids:

1. They usually mature before killing frost.
2. Adapted early hybrids can generally yield as much as late hybrids in most areas of Michigan.
3. Early hybrids with lower moisture content at harvest reduce drying time and market discounts for high grain moisture.
4. Grain test weights are generally higher, resulting in reduced market discounts.
5. Mature, dry corn makes a superior feed grain when used in swine or poultry rations.
6. Harvest can take place earlier in the fall, when weather conditions are most favorable reducing corn losses resulting from broken stalks and dropped ears.
7. Fall tillage of corn stubble can be completed on land not subject to erosion.

2010 Grain Trial Locations

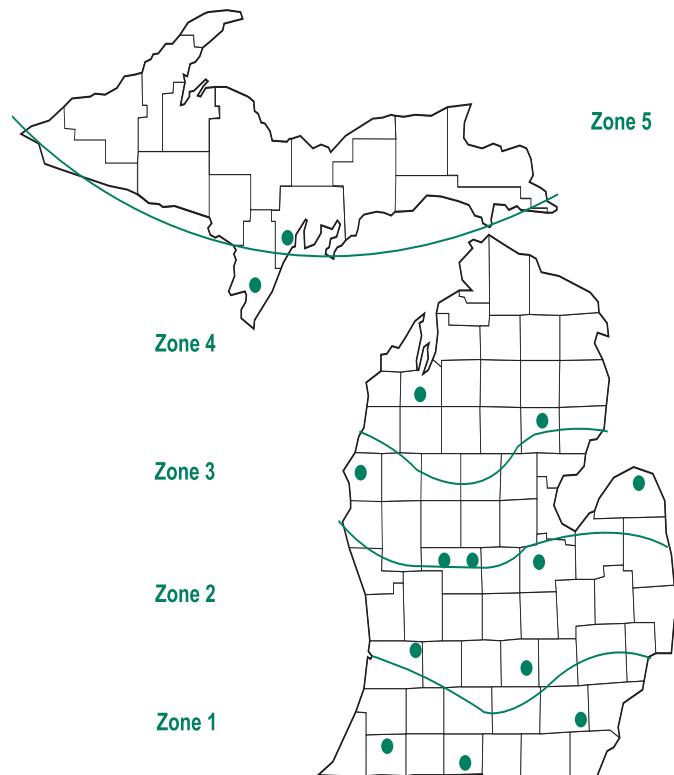


TABLE 1E.

BRANCH, CASS & WASHTENAW COUNTY GRAIN TRIALS - EARLY (107 Day and Earlier)

ZONE 1

BRAND/HYBRID	RM	TRT	EARLY - TRIAL AVERAGE				BRANCH - EARLY				CASS - EARLY				WASHTENAW - EARLY			
			%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd	
AGRA A100	100		14.6	161.9	56.0	1.8	100	13.6	150.1	54.6	0.3	100	13.5	167.2	57.3	0.9	99	
AGRA A101	101		15.5	179.1	55.5	1.6	99	14.1	181.8	54.5	0.0	97	13.6	182.2	56.6	0.0	99	
AGRA A107	107		17.2	200.9*	55.2	1.5	97	15.6	199.7*	53.9	0.3	97	13.9	204.5	56.7	0.0	95	
AGRA A9020	102	1,2,3,4	15.0	186.3	54.2	2.6	99	13.8	167.1	52.7	3.5	97	13.4	207.4*	55.8	1.2	100	
AGRA A9060	106	1,2,3,4	15.9	192.8*	55.3	1.5	98	15.4	190.1	54.5	0.3	97	13.8	200.9	56.1	1.8	98	
AGRIGOLD A6323GT3	103	C250	12.3	15.5	192.3*	55.7	2.5	98	14.7	190.9	54.4	0.0	98	14.1	207.0*	57.0	0.6	99
BECK 4613A3	102	1,2,3,4	15.2	179.7	55.6	4.0	99	13.9	174.0	53.9	0.0	98	13.7	183.7	56.9	0.3	99	
BECK 4817HXR™	104	1,2,3,4	15.7	182.2	56.6	1.6	97	14.6	174.1	55.4	0.9	100	14.0	209.5*	58.3	0.3	98	
BECK 5269HXR™	106	1,2,3,4	16.0	195.1*	57.1	4.6	96	15.9	195.7	56.2	0.3	94	14.7	213.3*	57.6	0.3	95	
BECK 5354HXR™	107	1,2,3,4	16.9	193.8*	56.7	1.7	100	16.5	174.7	56.2	0.0	99	14.6	230.9**	57.6	0.0	100	
BECK 5377HRT™	106	1,2,4	16.9	190.0	55.4	0.9	97	15.1	182.8	56.3	0.6	96	14.2	196.8	55.9	0.0	99	
CHANNEL 201-16VT3 Brand	105	1,2,3,4	14.9	178.7	56.6	10.5	98	13.6	166.0	57.8	0.6	99	13.7	200.5	56.3	1.8	100	
CROPLAN 5338SS	103	P250	12.3	14.5	195.7*	54.7	5.3	99	14.2	194.5	55.7	0.9	94	13.6	188.2	56.7	0.6	92
DAIRYLAND STEALTH-9206Q	106	C250	1,2,3,4	16.0	188.3	55.0	5.0	99	15.0	190.6	56.5	0.3	99	14.0	185.2	54.7	0.9	98
DEKALB DKC50-35(VT3)	100	P250	12.3	14.6	177.3	56.5	0.2	99	13.7	165.4	55.1	0.0	98	13.6	189.3	57.4	0.0	99
DEKALB DKC50-66(VT3)	100	P250	12.3	14.2	148.8	56.3	6.2	99	13.7	151.9	55.1	0.0	100	13.5	141.6	57.1	8.3	98
DEKALB DKC51-86(GENVT3P)	101	P250	12.3	14.5	177.4	55.9	2.3	100	14.0	165.1	55.9	0.0	99	13.5	192.2	56.1	1.2	100
DEKALB DKC52-59(VT3)	102	P250	12.3	14.5	195.7*	54.7	5.3	99	13.8	192.8	54.5	0.0	100	13.4	218.5*	55.5	0.0	99
DEKALB DKC54-16(VT3)	104	P250	12.3	15.3	187.7	54.8	4.3	99	14.0	174.2	58.6	0.0	100	13.9	210.5*	57.1	0.3	100
DEKALB DKC54-49(VT3)	104	P250	12.3	14.7	178.7	57.5	6.8	99	13.9	177.8	56.1	4.0	100	13.7	185.3	57.8	3.8	99
DYNAGRO 56R60	107	P250	12.3	15.8	195.2*	54.3	1.0	98	15.5	196.5	53.7	0.0	96	14.0	219.0*	55.3	0.0	99
DYNAGRO CX10106	106	C250	12.3	15.2	177.8	54.5	1.7	99	14.5	178.6	53.9	0.9	100	13.5	185.9	55.9	1.2	100
DYNAGRO D4ISS49	104	C250	1,2,3,4	14.5	170.9	55.1	4.6	94	13.7	167.7	53.5	0.0	95	13.4	183.3	55.7	0.0	90
DYNAGRO D4050	105	C250	1,2,3,4	15.5	190.6	56.4	1.2	98	14.2	181.8	56.0	0.3	96	13.6	209.8*	58.1	0.3	99
G2 GENETICS 1H-005 HXII	105	C250	2.4	16.0	178.4	55.7	3.5	100	14.8	170.8	57.7	0.0	99	13.7	184.9	56.0	0.6	100
G2 GENETICS 5H-005 RRHX	105	C250	1,2,4	16.1	185.1	53.1	1.5	100	14.7	177.8	53.4	0.0	100	13.6	188.9	52.9	0.0	100
G2 GENETICS 5H-007 RRHX	107	C250	1,2,4	16.4	198.7*	55.5	3.6	93	15.5	192.7	55.5	0.3	95	14.1	215.7*	56.8	3.1	96
G2 GENETICS 5H-608 RRHX	107	C250	1,2,4	17.2	184.1	54.3	1.4	98	15.4	181.9	53.8	0.3	97	13.9	184.2	55.4	0.6	98
G2 GENETICS 5X-007 RRHX	107	C250	1,2,3,4	16.0	191.6*	57.8	2.2	99	15.1	186.7	56.3	0.6	98	13.9	199.9	60.4	0.6	99
G2 GENETICS 5X-007 RRHX	107	C250	1,2,3,4	15.5	191.1	56.1	1.5	100	14.7	192.7	55.0	0.0	99	14.0	207.2*	57.4	0.0	100
G2 GENETICS 5X-905 RRHX	105	C250	1,2,3,4	16.2	188.9	55.8	0.7	98	15.1	176.8	56.2	0.0	97	13.6	206.6*	57.6	0.0	98
GARST 86N/39-3000GT Brand	105	C250	1,2,3,4	15.6	186.8	56.1	1.1	95	14.9	177.1	56.1	0.0	93	14.1	200.6	56.3	0.0	93
GOLDEN HARVEST H-8211 3000GT Brand	105	C250	1,2,3,4	15.5	195.0*	55.5	1.0	94	14.5	187.2	55.5	0.3	95	13.7	214.3*	55.6	0.0	99
GREAT LAKES 5211GS	102	P250	1,2,3,4	15.1	177.6	55.6	3.6	97	14.5	189.1	55.7	0.3	94	13.7	202.4	57.2	0.6	99
GREAT LAKES 5643VT3PRO	106	P250	1,2,3	15.1	189.3	54.4	1.1	99	14.1	186.7	54.5	0.3	98	13.2	212.2*	54.7	0.6	99
G2 GENETICS 5X-905 RRHX	105	C250	1,2,3,4	16.0	185.1	54.5	1.9	96	15.2	178.2	55.2	0.0	95	13.9	192.5	54.1	0.0	92
GARST 86N/39-3000GT Brand	107	P250	1,2,3	16.7	205.0*	56.2	2.9	96	15.3	186.4	55.8	0.0	97	14.0	222.4*	57.5	2.6	100
HERITAGE 435VT3	107	P250	1,2,3	15.0	189.3	55.9	1.6	99	13.9	189.4	56.0	0.0	100	13.5	204.8*	57.1	0.0	99
HERITAGE 8390GENSS	104	P250	1,2,3,4	14.5	175.0	55.1	1.9	97	14.1	169.6	55.4	0.0	92	13.6	199.7	55.0	0.3	100
INTEGRA SEED 9532 SS	104		15.9	176.1	55.0	3.7	98	14.6	177.4	55.6	0.0	95	13.9	176.9	53.4	0.9	98	
INTEGRA SEED 9591 RB	107		17.2	188.6	56.8	0.9	96	15.6	185.0	58.0	0.6	93	14.4	190.0	57.5	0.0	94	
MASTERS CHOICE MCT-493	93	P250	1,2,3,4	14.2	159.1	55.2	1.0	100	13.6	157.8	53.3	0.3	100	14.9	169.2	55.7	0.6	100
MYCOGEN 2597	105	C250	1,2,3,4	15.6	181.1	55.1	1.8	99	14.6	182.3	54.0	0.3	100	13.9	192.7	56.3	0.0	96
NK Brand N61F 3000GT Brand	105	C250	1,2,3,4	15.9	196.8*	55.4	0.9	99	15.5	178.7	53.7	0.0	97	13.7	223.7*	58.1	0.0	99

NuTech 3A-406 GT	106	C250	1	16.3	198.1 *	54.4	1.4	99	15.1	197.5	53.2	1.5	99	13.9	210.0 *	55.3	0.6	99	20.0	186.9 *	54.7	2.0	100
NuTech 3A-804 GT	104	C250	1	15.6	182.2	54.9	2.4	98	14.6	174.5	54.5	0.6	98	13.9	201.2	55.2	0.0	100	18.4	171.0	55.0	6.7	96
NuTech 5N-705 GT/CBLL/RW	105	C250	1,2,3,4	15.6	191.9 *	56.7	0.8	99	14.6	187.2	55.5	0.3	99	14.0	210.8 *	57.7	0.0	99	18.3	177.7	56.9	2.0	100
NuTech 5N-803 GT/CBLL/RW	103	C250	1,2,3,4	14.5	185.2	55.4	9.7	97	14.2	183.2	56.4	0.0	97	13.4	206.0 *	54.8	1.2	94	16.0	166.4	54.9	27.9	100
PIONEER 35F40	105	P1250	1,2,4,11,12	16.6	200.0 *	57.1	1.9	99	15.5	194.5	56.3	0.0	100	14.4	220.6 *	58.4	0.6	100	20.0	185.0 *	56.7	5.2	96
PIONEER 35K04	106	C250	1,2,3,4,11,12	16.1	186.0	58.6	2.1	97	15.3	177.6	58.1	0.3	96	14.5	210.9 *	58.6	0.0	99	18.6	169.6	59.0	6.1	97
REINK RK694GTCBLL/RW	104	C250	1,2,3,4	15.4	182.9	56.2	1.4	97	14.0	172.6	54.4	0.0	99	14.0	198.9	57.9	0.6	97	18.1	177.1	56.3	3.5	95
REINK RK698VT3	103	P250	1,2,3	15.3	186.2	57.1	2.6	98	14.1	188.4	56.8	1.2	97	13.8	191.8	58.2	0.6	98	18.0	178.5	56.4	5.9	98
REINK RK744VT3	107	P250	1,2	15.9	198.0 *	54.3	5.0	97	14.4	185.8	56.7	0.0	93	13.9	203.0	51.4	0.9	98	19.5	205.1 *	54.9	14.1	100
RUPP XR8013	107	P250	1,2,3	15.0	183.4	56.4	6.8	98	14.4	189.8	57.3	0.0	96	13.7	200.6	56.5	0.9	97	17.0	159.9	55.4	19.5	100
RUPP XR8034	105	C250	1,2,3,4	15.6	195.5 *	55.4	1.8	98	14.6	193.4	55.6	0.0	96	13.6	197.2	55.1	0.0	98	18.6	196.0 *	55.5	5.4	100
RUPP XR8039	105	P250	1,2,3	15.4	193.9 *	55.8	9.1	98	14.6	216.3 **	55.3	1.4	100	14.0	203.2	56.6	2.4	95	17.5	162.3	55.5	23.5	98
RUPP XR8407	107	P250	1,2,3	16.2	187.5	56.4	3.9	99	15.3	189.8	55.5	0.0	98	13.9	194.0	57.5	0.3	100	19.5	178.6	56.2	11.5	100
SEED CONSULTANTS SC10A000	100	C250	1,2,3,4	14.4	183.9	53.9	1.9	98	13.9	181.6	52.3	0.6	96	13.4	207.1 *	54.7	0.6	98	15.9	163.0	54.8	4.6	100
SEED CONSULTANTS SCEX0103-3	104	C250	None	14.3	158.2	54.8	2.9	100	13.6	162.2	53.9	1.1	100	13.4	150.3	54.6	0.9	99	16.0	162.1	55.8	6.6	100
SEED CONSULTANTS SCS10HQ30TM	103	C250	1,2,3,4	16.6	185.4	56.0	0.5	98	16.1	188.7	55.1	0.0	98	14.5	199.0	57.1	0.0	98	19.1	168.5	55.7	1.4	99
SEED CONSULTANTS SCS10HQ70TM	107	C250	1,2,3,4	17.5	180.2	58.3	1.9	97	16.6	186.7	58.1	0.0	99	15.4	179.9	59.5	0.0	93	20.4	174.0	57.2	5.7	100
STEWART 5A988	104	C250	1,2,3,4	15.3	180.6	55.8	4.8	95	13.9	183.2	54.6	0.0	97	13.5	203.3	58.1	0.0	97	18.6	155.3	54.7	14.5	91
STEWART 61538	106	C250	None	16.8	193.5 *	56.5	1.4	99	15.4	174.9	56.7	0.3	98	14.0	195.6	58.2	0.9	100	21.1	210.0 **	54.6	3.1	100
STEWART 61725	106	C250	1,2,3,4	15.7	193.4 *	56.4	1.3	96	15.3	195.0	55.4	0.0	94	13.7	202.6	58.3	1.2	100	18.2	182.7	55.5	2.6	94
STEYER 1063 3000GT	106	C250	1,2,3,4	16.2	182.7	54.4	2.2	99	15.0	184.4	52.8	0.3	99	13.6	172.2	57.4	0.3	99	19.9	191.6 *	53.1	6.0	100
STEYER 10701 VT3	107	C250	1,2,3	16.2	191.5 *	56.1	5.3	95	14.9	191.2	55.7	0.0	94	13.6	199.0	57.1	0.3	97	20.0	184.3 *	55.5	15.6	95
WELLMAN W2000R	100	1	14.9	176.7	56.3	3.8	99	14.0	176.5	55.2	0.6	99	13.7	190.5	56.5	2.4	97	16.9	163.2	57.1	8.3	100	
WELLMAN W2004R	104	1	14.7	182.9	57.2	4.0	100	14.2	196.8	56.9	2.0	99	13.5	190.6	57.8	0.9	100	16.3	161.4	56.8	9.2	100	
WELLMAN W2007VT3	107	1,2,3	15.3	191.8 *	56.2	5.7	98	14.2	189.4	57.4	0.3	97	13.7	216.4 *	56.4	0.6	96	17.9	169.7	54.9	16.1	100	
WELLMAN W2100R	100	1	14.7	168.3	58.1	3.0	97	14.0	158.6	58.5	0.3	97	13.7	182.9	58.0	1.5	99	16.5	163.5	57.9	7.3	95	
WELLMAN W2102VT3	102	1,2,3	14.5	176.5	55.4	0.8	97	13.5	158.6	54.7	0.0	100	13.3	199.4	56.4	0.0	99	16.7	171.4	55.0	2.3	93	
WELLMAN W2105VT3	105	1,2,3	15.5	201.3 *	55.5	9.1	98	14.5	208.7 *	55.4	0.3	97	13.7	217.9 *	57.5	3.7	96	18.3	177.2	53.7	23.3	100	
WELLMAN W2706	106	15.4	188.6	56.6	1.1	97	14.6	185.2	55.2	0.3	97	13.5	196.7	56.4	0.6	98	18.0	183.8 *	58.2	2.5	97		
AVERAGE		15.6	185.7	55.8	2.9	98	14.6	182.1	55.4	0.4	97	13.8	198.3	56.5	0.8	98	18.3	176.5	55.4	7.5	98		
HIGHEST		17.5	205.0	58.6	10.5	100	16.6	216.3	58.6	4.0	100	15.4	230.9	60.4	8.3	100	22.2	210.0	59.0	29.0	100		
LOWEST		14.2	148.8	53.1	0.2	93	13.5	150.1	52.3	0.0	92	13.2	141.6	51.4	0.0	90	15.3	141.3	52.8	0.6	87		
CV (%)		5.8	9.2	4.4	186.1	4.0	2.8	7.4	3.3	312.2	4.0	1.8	9.5	3.6	226.5	3.0	8.2	10.6	28	120.8	6.0		
LSD (5%)		0.7	13.6	2.0	4.3	3.0	0.6	18.7	2.6	1.7	5.0	0.3	26.1	2.8	2.4	4.0	2.1	26.2	2.1	12.6	8.0		

-2 Year Averages Continued On Page 16.

** Highest Yielding Hybrid
 * Not Significantly Different from Highest Yielding Hybrid

TABLE 1L.

BRANCH, CASS & WASHENTAW COUNTY GRAIN TRIALS - LATE (108 Day and Later)

ZONE 1

BRAND/HYBIRD	RM	TRT	2010						CASS-LATE						WASHENTAW-LATE								
			LATE-TRIAL AVERAGE			BRANCH-LATE			%H2O	BU/A	%H2O	BU/A											
			%H2O	BU/A	Twt	%SL	%SD	%H2O	BU/A	Twt	%SL	%SD	%H2O	BU/A	Twt	%SL	%SD	%H2O	BU/A	Twt	%SL	%SD	
AGRA A110	110		17.2	180.2	57.5	2.1	99	16.0	170.7	58.1	0.9	97	14.4	207.9*	58.8	0	100	21.2	162.1	55.7	5.5	100	
AGRA A909	109		16.5	177.5	58.3	4.9	97	16.2	179.8	57.6	0.3	98	14.5	186.4	59.8	1.8	98	18.8	166.4	57.4	12.6	95	
AGRIGOLD A6421STX	108	P250	12.3	17.4	176.3	56.6	1.3	99	16.0	171.4	58.3	0.0	96	14.0	177.8	57.9	0	100	22.2	179.0	53.5	4.0	100
AGRIGOLD A6458VT3	109	P250	12.3	17.1	1921*	53.7	0.8	99	15.6	188.7	53.7	0.6	98	13.3	196.6*	55.2	0	99	22.5	190.9*	52.2	1.7	100
AGRIGOLD A6476VT3	110	P250	12.3	18.2	195.3*	56.3	1.1	99	16.5	197.7*	56.4	0.9	99	14.5	194.2*	58.8	0.3	98	23.5	194.0*	53.7	2.0	100
BECK 5442VT3	110	12.3	16.2	1926*	55.0	9.2	99	15.6	195.7*	54.2	0.3	97	13.9	202.3*	56.5	1.2	100	19.1	179.8	54.3	26.2	100	
BECK 5435HXR1TM*	109	12.34	17.7	178.6	57.9	1.6	98	16.6	171.8	57.9	0.3	98	14.7	184.1	59.5	0	97	21.9	180.0	56.4	4.4	100	
CHANNEL 209-19VT3 Brand	109	12.3	15.5	180.2	56.6	3.3	99	14.9	187.2	57.1	0.0	97	13.6	199.6*	58.2	0	100	17.9	153.9	54.6	9.8	100	
CHANNEL 210-61VT3 Brand	110	12.3	17.3	174.2	54.3	3.3	97	15.7	172.7	56.3	0.0	94	13.9	177.2	55.1	0	96	22.2	172.7	51.5	9.8	100	
DAIRYLAND STEALTH-1809	109	C250	14.7	181.4	53.9	2.2	99	14.1	182.6	54.1	0.0	99	13.5	190.9*	54.4	0.6	97	16.6	170.6	53.1	6.0	100	
DAIRYLAND STEALTH-6310	110	C250	16.3	186.0	55.1	1.3	99	15.6	189.1	53.9	0.3	99	14.1	201.5*	57.0	0.3	99	19.2	167.5	54.5	3.4	100	
DAIRYLAND STEALTH-9710SSX	110	C250	12.34	17.9	176.2	55.2	1.2	99	17.2	184.6	55.1	0.0	98	14.9	181.9	57.0	0.9	99	21.6	162.1	53.6	2.6	100
DEKAIB DKC88-83 (GENVT3P)	108		16.4	191.6*	56.6	1.9	100	14.3	186.1	56.2	0.0	100	14.0	200.3*	57.8	0	100	21.0	188.3*	55.7	5.7	100	
DEKAIB DKC99-35 (VT3)	109	P250	1.2.3	18.0	193.9*	55.8	2.6	98	15.8	193.7*	57.1	0.0	94	14.3	192.2*	57.2	1.2	99	24.0	195.9*	53.2	6.6	100
DEKAIB DKC99-64 (VT3)	109	P250	1.2.3	15.5	183.0	56.0	4.4	100	15.4	198.8*	56.3	0.3	100	13.7	212.5*	56.6	0	100	17.3	137.8	55.2	13.0	100
DEKAIB DKC90-51 (VT3)	110	P250	1.2.3	16.7	197.5*	58.0	2.5	98	15.0	189.9	59.7	0	97	14.0	203.5*	58.7	1.5	98	21.2	199.2*	55.6	6.0	100
DEKAIB DKC92-54 (VT3)	112	P250	1.2.3	16.3	198.6*	56.6	6.2	99	15.3	195.4*	56.2	0.3	97	13.8	210.1*	57.6	0	100	19.7	190.3*	55.9	18.4	100
DEKAIB DKC92-97 (GENVT3P)	112		16.8	201.6*	56.2	2.6	99	15.3	198.9*	56.3	0.0	99	14.0	200.3*	58.3	0	99	21.1	191.7*	54.0	7.8	98	
DYNAGRO 57V40	111	1.2.3	17.0	184.0	55.1	5.5	99	15.7	180.5	53.9	0.6	99	14.3	201.4*	58.3	0	97	20.9	170.1	53.0	15.8	100	
G2 GENETICS 3A-511 RR	111	C250	1	17.5	189.1*	55.9	4.2	99	16.3	195.4*	55.3	0.0	99	14.3	201.9*	57.3	1.5	98	22.0	170.0	55.1	11.2	100
G2 GENETICS 5H-509 RR1HX	109	C250	1.2.4	17.1	203.6**	56.5	0.4	98	15.8	204.2*	56.3	0	94	14.4	214.0*	57.8	0	100	21.1	192.7*	55.3	1.2	99
G2 GENETICS 5H-511 RR1HX	111	C250	1.2.4	17.9	194.6*	55.4	2.0	97	16.0	200.5*	56.2	0	96	14.5	179.4	56.9	1.5	96	23.2	205.9*	53.2	4.4	99
G2 GENETICS 5H-608A RR1HX	108	C250	1.2.4	17.1	182.2	55.2	1.1	98	15.8	181.3	55.3	0.0	97	14.2	186.8	56.2	0	98	21.3	178.6	54.0	3.2	99
G2 GENETICS 5H-909 RR1HX	109	C250	1.2.4	16.8	189.8*	59.2	1.2	97	16.1	188.7	59.1	0	94	14.6	201.6*	60.9	0	98	19.7	179.0	57.7	3.5	99
G2 GENETICS 5X-209 RR1HT	109	C250	1.2.34	16.4	186.0	57.7	0.6	98	15.9	179.5	57.8	0	96	14.2	202.0*	57.6	0	98	19.2	176.6	57.6	1.7	100
G2 GENETICS 5X-711 RR1HT	111	C250	1.2.34	17.9	195.8*	57.5	0.3	96	16.6	186.6	56.9	0	97	15.0	201.8*	60.7	0	94	22.0	199.0*	54.8	0.9	96
G2 GENETICS 5X-908 RR1HT	108	C250	1.2.34	16.8	184.3	56.7	1.5	99	15.3	176.7	56.7	0.3	99	14.7	203.3*	57.7	0.3	98	20.3	173.0	55.8	4.0	100
G2 GENETICS 5X-909 RR1HT	109	C250	1.2.37	17.5	184.8	58.9	1.1	99	16.6	188.2	59.2	0	98	14.6	177.5	60.2	1.5	99	21.2	188.8*	57.4	1.7	100
G2 GENETICS 5X-909 RR1HT Brand	110	C250	1.2.34	18.0	188.0	55.4	1.7	100	17.6	212.6**	54.2	0	100	15.7	193.8*	57.3	0.3	99	20.6	157.5	54.6	4.9	100
GOLDEN HARVEST H-8969 3000GT Brand	110	C250	1.2.34	17.0	182.1	54.4	1.0	95	15.9	188.1	52.6	0.3	97	14.1	176.1	58.4	0.4	88	20.9	182.9*	52.2	2.3	100
GREAT LAKES 5939G3V73	109	P250	1.2.3	16.4	196.6*	53.7	5.9	99	15.6	191.8	55.4	0.6	99	13.3	200.3*	54.5	1.2	98	20.3	197.8*	51.2	15.8	100
HERITAGE 1602VT3	109	P250	1.2.3	16.8	199.8*	55.2	3.6	99	15.4	206.2*	54.9	0.3	98	14.1	209.3*	57.4	0	99	21.0	184.0*	53.2	10.6	100
MYCOGEN JK679	109	C250	1.2.34	15.8	179.7	55.3	2.6	99	14.2	176.9	55.8	0	97	13.6	197.4*	56.1	0	99	19.5	164.7	53.9	7.8	100
NK Brand N63R 3000GT Brand	109	C250	1.2.34	17.2	193.2*	56.5	3.4	99	16.1	193.9*	57.2	0.3	97	14.3	200.7*	57.6	0	99	21.1	185.0*	54.7	9.8	100
NuTech 1N-109 CBILL/RW	109	C250	2.3.4	15.9	179.1	55.8	1.5	98	15.0	198.6*	56.4	0.0	97	13.6	177.4	56.8	0.7	97	19.1	161.2	54.1	3.7	100
NuTech 3A-710 GT	110	C250	1.2.3	16.2	168.3	56.3	3.6	99	15.1	177.4	56.7	1.1	97	13.8	179.4	58.7	1.8	99	19.6	148.1	53.5	8.0	100
PIONEER 34F97	111	C250	1.2.34.11	18.6	195.3*	55.1	0.1	98	15.2	187.6	57.2	0	100	14.0	189.1	56.0	1.8	97	20.7	188.9*	53.4	24.4	100
PIONEER P081XR	108	C250	1.2.34	15.5	179.8	59.1	2.6	99	14.8	176.7	58.8	0.6	99	14.0	186.9	59.9	0	100	17.7	177.8	52.6	7.2	100
PIONEER RK764SSTX	108	P250	1.2.34	17.4	175.8	57.4	0.5	99	15.7	170.4	59.1	0.0	98	14.0	174.8	59.1	0	98	22.6	182.1*	53.9	1.4	100
RENK RK848VT3P	112	P250	1.2.3	16.8	182.3	57.0	2.9	97	15.2	187.7	58.2	0.3	95	13.5	180.9	57.7	0.9	97	21.6	178.4	55.2	7.5	99
RENK RK880VT3P	112	P250	1.2.3	16.8	197.1*	56.2	4.3	99	15.5	196.0*	55.8	0.3	97	14.0	199.6*	57.4	0.0	100	20.9	195.7	55.4	12.6	100

RUPP XRT1791	109	C250	16.8	179.1	57.7	3.8	82	16.4	182.8	57.8	0	80	14.5	182.2	58.9	0.4	81	19.6	172.2	56.5	11.1	86	
SEED CONSULTANTS SC10AQ91A	110	C250	1,23.4	16.4	191.0 *	54.8	2.6	98	15.1	193.6 *	53.5	0.3	95	13.9	217.3 **	57.9	0.3	100	20.3	162.0	52.9	7.2	100
SEED CONSULTANTS SC11AQ007	111	C250	1,23.4	18.6	196.1 *	53.0	3.7	99	16.6	186.7	54.3	0.0	99	14.1	211.4 *	54.5	0.0	97	25.2	190.2 *	50.3	11.0	100
SEED CONSULTANTS SCSX0111-3	111	C250	1,23.4	18.3	184.8	52.2	1.5	97	17.0	191.5	52.3	0.0	97	14.2	188.6	53.7	0.0	96	23.8	174.3	50.5	4.6	99
SEED CONSULTANTS SCS10HQ78TM	108	C250	1,23.4	16.7	175.5	58.0	2.2	98	15.6	165.2	56.6	0.3	96	14.9	202.4 *	59.5	0.3	97	19.7	158.9	58.0	6.0	100
STEWART 7A218	109	C250	1,23.4	18.9	190.8 *	57.2	2.3	95	17.8	182.5	57.5	0.0	97	16.1	192.7 *	59.1	0.9	92	22.8	197.3 *	55.0	6.0	96
STEWART SEEDS 71945	111	P250	1,23.4	17.9	190.8 *	54.5	2.9	98	16.5	175.2	54.4	0.6	98	14.4	187.8	56.0	0.0	96	22.7	209.3 **	53.2	8.0	100
STEYER 1083 HXTRR	108	C250	1,23.4	15.1	176.9	56.0	5.5	95	14.2	183.1	58.3	0.3	96	13.5	174.4	56.3	0.3	91	17.7	173.2	53.5	15.9	98
AVERAGE	16.9	186.0	56.0	2.8	98	15.8	186.3	56.3	0.2	96	14.2	194.3	57.5	0.5	97	20.8	177.4	54.3	7.7	99			
HIGHEST	18.9	203.6	59.2	9.2	100	18.1	212.6	59.7	1.1	100	16.1	217.3	60.9	1.8	100	25.2	209.3	58.6	26.2	100			
LOWEST	14.7	164.2	52.2	0.1	80	14.1	165.2	52.3	0.0	67	13.3	174.0	53.7	0.0	73	16.6	129.7	50.3	0.3	86			
CV (%)	6.0	9.8	3.1	153.4	4.0	3.0	7.8	3.6	312.2	5.0	2.4	9.8	3.0	222.9	4.0	8.0	11.7	2.8	94.8	2.0			
LSD (5%)	0.8	14.6	1.4	3.4	3.0	0.7	20.2	2.8	0.9	6.0	0.5	26.5	2.4	1.4	5.0	2.3	29.0	2.1	10.3	2.0			

2 Year Averages 2010 - 2009

BRAND/HYBRID	RM	TRT	LATE - TRIAL AVERAGE						BRANCH - LATE						CASS - LATE						WASHITA/NW - LATE					
			%H2O	Bu/A	Twt	%SSL	%Sd	%H2O	Bu/A	Twt	%SSL	%Sd	%H2O	Bu/A	Twt	%SSL	%Sd	%H2O	Bu/A	Twt	%SSL	%Sd	%H2O	Bu/A	Twt	%SSL
AGRICOLD A458VT3	109	P250	1,2.3	22.3	204.7 *	52.9	1.1	99	25.7	201.7 *	52.0	0.3	98	18.2	196.5 *	54.1	1.6	100	23.1	216.0 *	52.6	1.3	99			
BECK 5442VT3	110	1,2.3	21.9	200.1 *	53.5	5.2	99	25.1	196.0 *	52.3	0.2	98	18.8	199.1 *	54.6	2.0	100	21.7	205.2 *	53.5	13.4	99				
CHANNEL 209.19VT3 Brand	109	1,2.3	20.8	197.0 *	54.6	2.0	99	23.9	199.5 *	53.9	0.2	97	18.2	201.1 *	55.8	0.7	100	20.3	190.5	54.1	5.2	99				
DEKAIB DKC59-35 (VT3)	109	P250	1,2.3	22.9	202.2 *	54.0	1.9	97	25.0	198.8 *	53.9	0.0	96	18.9	199.2 *	55.2	0.8	98	24.8	208.5 *	52.8	4.8	97			
DEKAIB DKC59-64 (VT3)	109	P250	1,2.3	22.0	192.9	54.0	2.9	97	25.2	196.0 *	53.4	0.1	99	18.7	200.2 *	54.8	1.5	98	22.0	182.5	53.7	7.0	94			
DEKAIB DKC60-51 (VT3)	110	P250	1,2.3	22.0	206.1 *	55.1	1.4	96	24.4	198.2 *	55.2	0.0	96	18.6	201.1 *	56.0	0.9	98	23.0	218.9 **	54.2	3.2	95			
DYNAGRO 57V40	111	1,2.3	22.2	197.2 *	53.6	3.6	98	25.0	188.5	52.2	0.3	97	19.2	199.5 *	55.6	1.8	98	22.5	203.5 *	52.9	8.7	100				
G2 GENETICS 5H-909 RR/HX	109	C250	1,2.4	21.3	199.7 *	56.0	0.9	96	24.0	197.1 *	55.1	0.3	93	18.5	196.9 *	57.3	0.2	98	21.5	205.2 *	55.7	2.1	97			
G2 GENETICS 5X-711 RR/HX	111	C250	1,2.3	22.9	205.3 *	54.7	0.5	95	25.7	198.9 *	53.7	0.0	97	19.2	204.4 *	56.9	0.8	95	23.8	212.5 *	53.6	0.8	94			
G2 GENETICS 5X-909 RR/HX	109	C250	1,2.3	21.7	200.1 *	55.9	0.8	97	24.3	197.1 *	55.1	0.2	95	18.3	190.4	57.1	0.7	98	22.4	212.9 *	55.5	1.5	99			
GREAT LAKES 5939G3VT3	109	P250	1,2.3	22.2	203.1 *	52.8	3.8	99	25.8	203.9 **	52.9	0.3	99	18.5	190.0	53.7	2.6	99	22.4	215.5 *	51.9	8.5	98			
Nutech 3T-110 VT3	110	P250	1,2.3	21.9	199.7 *	53.9	4.7	100	24.8	190.1	53.9	0.0	100	18.7	195.2	54.5	1.6	99	22.3	213.8 *	53.2	12.5	100			
PIONEER 34F97	111	C250	1,2,3,4,11	23.7	210.5 **	53.5	0.3	98	26.5	201.7 *	52.8	0.0	97	20.1	214.0 **	54.6	0.7	99	24.5	215.8 *	53.0	0.2	99			
RUPP XRT1791	109	C250	21.3	21.3	196.9 *	55.2	2.5	89	23.7	196.7 *	54.4	0.0	88	18.7	191.0	56.2	1.5	87	21.5	202.9	54.9	6.0	91			
STEWART SEEDS 71945	111	P250	1,2.3	23.0	199.9 *	53.9	2.0	99	24.8	197.2 *	53.9	0.1	99	19.6	203.1 *	54.9	1.4	100	24.5	199.5	52.9	4.5	98			
AVERAGE	22.1	201.0	54.2	2.2	97	24.9	197.4	53.6	0.1	97	18.8	198.8	55.4	1.3	98	22.7	206.9	53.6	5.3	97						
HIGHEST	23.7	210.5	56.0	5.2	100	26.5	203.9	55.2	0.3	100	20.1	214.0	57.3	2.6	100	24.8	218.9	55.7	13.4	100						
LOWEST	20.8	192.9	52.8	0.3	89	23.7	188.5	52.0	0.0	88	18.2	190.0	53.7	0.2	87	20.3	182.5	51.9	0.2	91						
CV (%)	5.1	8.9	2.7	157.3	4.0	3.5	6.4	2.6	305.4	4.0	3.7	9.4	2.2	203.2	4.0	6.3	8.6	2.0	83.8	3.0						
LSD (5%)	0.8	13.6	1.2	3.0	3.0	0.7	12.0	1.4	0.5	4.0	0.6	18.1	1.2	1.5	4.0	1.3	15.9	1.1	5.2	3.0						

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

TABLE 2E.

ALLEGAN, INGHAM & SAGINAW COUNTY GRAIN TRIALS - EARLY (101 Day and Earlier)

ZONE 2

BRAND/HYBRID	RM	TRT	2010			EARLY - TRIAL AVERAGE			ALLEGAN - EARLY			INGHAM - EARLY			SAGINAW - EARLY				
			%H2O	Bu/A	Twt	%SL	%SD	%H2O	Bu/A	Twt	%SL	%SD	%H2O	Bu/A	Twt	%SL	%SD		
AGRIGOLD Ag6220VT3P10	98	P250	1.23	15.0	188.7	58.2	3.1	100	--	--	--	--	14.3	185.0	57.2	3.2	100		
AGRIGOLD Ag276VT3	101	P250	1.23	16.3	244.8*	58.3	0.7	100	Trial dropped due to standing water			15.1	211.6*	58.1	0.3	99			
Agventure EX003076	98	C250	1.24	15.1	189.7	57.9	0.2	97	14.7	191.5	57.7	0.0	97	17.5	217.9*	58.4	1.1		
Agventure EX268223	97	P250	1.23,4	16.2	218.0*	57.3	1.3	97	--	--	--	14.6	213.3*	57.5	2.5	96			
BAYSIDE 5094RR2	94	1	14.1	195.4	57.7	2.5	97	--	--	--	13.9	202.2*	57.8	1.8	98	14.3	188.5	57.6	
BAYSIDE T2001	101		15.9	202.4	57.1	5.2	100	--	--	--	14.5	197.0	56.7	1.4	100	17.3	207.7	57.5	
BAYSIDE 8093 3000GT	93		1.23	15.8	194.6	58.3	0.9	97	--	--	--	--	--	--	--	15.8	194.6	58.3	
BAYSIDE 8096 3000GT	96		1.23	15.2	200.6	57.1	4.6	96	--	--	--	14.5	201.9*	57.0	3.3	98	15.9	199.3	58.3
BAYSIDE 9096	96		14.9	187.3	59.1	1.9	98	--	--	--	14.4	184.2	59.2	1.7	100	15.4	190.3	59.0	
BAYSIDE 9096GT	96		15.9	196.4	57.5	2.0	100	--	--	--	--	--	--	--	--	15.9	196.4	57.5	
BAYSIDE 9096GT	99	1	15.9	196.3	57.3	2.5	99	--	--	--	14.7	187.4	57.1	2.6	99	17.1	205.2	57.5	
BAYSIDE 9100GT	100	1	15.8	200.5	56.4	6.2	97	--	--	--	14.7	201.9*	56.6	11.8	99	16.8	199.1	56.2	
CHANNEL 199-55VT3 Brand	97	1,23,4	15.7	215.3*	57.7	0.8	99	--	--	--	14.6	217.2*	59.8	0.9	100	16.8	213.4*	55.6	
CHANNEL 201-84R Brand	101	1,2,3	15.8	206.3	57.2	3.5	96	--	--	--	14.9	208.5*	57.1	2.1	97	16.6	204.1	57.3	
CROPLAN 3724VT3	96	C250	1.23	15.7	211.1*	58.3	2.2	99	--	--	14.9	211.5*	58.3	1.2	98	16.4	210.6*	58.2	
CROPLAN 5338SS	103		17.7	225.0**	57.4	2.3	96	--	--	--	16.3	222.9**	57.3	1.2	96	19.0	227.0*	57.5	
DAIRYLAND STEALTH-1898	98	C250	4	15.7	190.5	56.3	2.1	98	--	--	14.4	179.7	55.9	3.2	98	17.0	201.3	56.6	
DAIRYLAND STEALTH-6494	94	C250		14.9	192.2	56.6	3.8	95	--	--	14.2	193.6	55.6	1.8	99	15.6	190.8	57.6	
DAIRYLAND STEALTH-9799	99	C250	1.23	15.5	207.8	57.1	0.3	97	--	--	14.6	204.8*	56.6	0.0	96	16.3	210.8*	57.5	
DEKAIB DIK42-72 (V3)	92	P250	1.23	14.6	198.7	57.6	0.5	96	--	--	14.2	187.3	57.3	0.9	96	14.9	210.1*	57.8	
DEKAIB DIK43-27 (V3)	93	P250	1.23	14.6	184.1	57.4	11.8	97	--	--	14.2	178.1	57.3	23.0	100	15.0	190.1	57.5	
DEKAIB DIK45-52 (GENVT3P)	95		14.9	208.5	58.1	0.9	99	--	--	--	14.1	212.7*	57.3	1.1	100	15.6	204.3	58.9	
DEKAIB DIK48-37 (V3)	98	P250	1.23	15.3	203.1	58.8	1.8	97	--	--	14.6	205.3*	58.5	1.5	97	16.0	200.9	59.1	
DEKAIB DIK50-35 (V3)	100	P250	1.23	15.1	200.0	57.5	14.1	98	--	--	14.1	191.8	57.0	27.0	98	16.1	208.2	57.9	
DEKAIB DIK50-66 (V3)	100	P250	1.23	15.1	198.1	57.0	0.9	96	--	--	14.6	212.6*	57.3	1.2	96	15.6	183.6	56.7	
DEKAIB DIK51-86 (GENVT3P)	101		15.5	202.2	57.4	5.4	98	--	--	--	14.3	200.4*	57.7	5.5	97	16.7	204.0	57.0	
DYNAGRO 54V78	96	1,2,3	14.2	197.3	56.6	1.6	97	--	--	--	14.1	194.1	56.0	0.6	95	14.3	200.4	57.1	
DYNAGRO D40SS09	101	1,2,3,4	15.9	214.0*	57.8	3.4	96	--	--	--	14.8	210.1*	57.1	2.8	92	17.0	217.8*	58.4	
DYNAGRO V3883VT3	98		15.8	213.8*	57.8	0.8	99	--	--	--	14.4	211.5*	56.9	1.2	99	17.1	216.0*	58.7	
G2 GENETICS 5H-501 RRI/HX	101	C250	1,2,4	16.6	215.8*	56.9	0.2	96	--	--	15.2	204.4*	57.0	0.3	94	17.9	227.1**	56.8	
G2 GENETICS 5H-502 RRI/HX	101	C250	1,2,4	16.8	218.4*	58.1	0.3	99	--	--	15.5	216.3*	59.5	0.3	100	18.0	220.5*	56.7	
G2 GENETICS 5H-597 RRI/HX	97	C250	1,2,4	15.3	204.7	55.8	0.7	97	--	--	14.3	217.5*	56.0	0.8	99	16.3	191.8	55.6	
G2 GENETICS 5H-600 RRI/HX	100	C250	1,2,4	16.1	207.5	55.9	12.0	97	--	--	15.1	198.4	54.3	23.6	99	17.1	216.5*	57.5	
G2 GENETICS 5H-702 RRI/HX	101	C250	1,2,4	17.0	212.3*	56.7	1.5	96	--	--	15.4	208.5*	57.6	1.8	95	18.5	216.1*	55.8	
G2 GENETICS 5H-797 RRI/HX	97	C250	1,2,4	15.2	173.9	57.4	1.6	94	--	--	15.0	167.7	55.5	2.3	93	15.4	180.0	59.2	
G2 GENETICS 5H-897 RRI/HX	97	C250	1,2,4	15.5	204.5	57.6	1.2	100	--	--	14.6	191.0	56.9	1.7	100	16.3	218.0*	58.3	
G2 GENETICS 5H-597 RRI/HX	101	C250	1,2,4	16.2	220.7*	57.8	1.7	98	--	--	14.9	221.1*	58.0	1.8	97	17.4	220.2*	57.6	
G2 GENETICS 5H-902 RRI/HX	97	C250	1,2,4	15.9	197.1	57.2	2.5	96	--	--	15.1	201.3*	56.9	1.8	97	16.6	192.8	57.5	
G2 GENETICS 5H-999 RRI/HX	100	C250	1,2,3,4	16.9	200.0	59.6	0.3	94	--	--	--	--	--	--	--	16.9	200.0	59.6	
GARST 38M51-3000GT Brand	98	C250	1,2,3,4	15.6	197.5	56.0	1.3	92	--	--	14.7	185.3	55.4	1.6	90	16.5	209.7*	56.6	
GOLDEN HARVEST H-7044 3000GT Brand	96	C250	1,2,3,4	15.1	200.4	57.2	1.3	98	--	--	14.4	203.1*	57.7	2.3	97	15.8	197.6	56.6	
GREAT LAKES 4664G3V73	96	P250	1,2,3	14.5	189.5	57.1	0.9	100	--	--	14.2	191.0	56.8	1.2	99	14.8	187.9	57.3	
GREAT LAKES 5H-999 RRI/HX	98	P250	1,2,3	14.7	197.7	57.5	12.0	100	--	--	14.2	189.8	57.2	22.7	100	15.1	205.6	57.8	
GREAT LAKES 5X-500 RRI/HX	100	P250	1,2,3	16.3	209.2*	56.0	0.9	100	--	--	14.4	203.2*	56.2	0.6	100	18.1	215.2*	55.7	
GREAT LAKES 5H-500 G3V73	99	P250	1,2,3	15.6	194.4	59.9	1.3	89	--	--	14.8	195.7	59.2	1.9	88	16.3	193.0	60.6	
HERITAGE 4281VT3	99																		

HERITAGE 8310GENSS	101	P250	1,2,3,4	16.0	205.1	57.5	22	100	--	--	--	--	--	--	14.5	197.8	56.6	3.0	99	17.4	212.4*	58.3	1.4	100
HYLAND SEEDS HL-B40R	95	P250	1,2	15.7	200.3	56.9	13.2	91	--	--	--	--	--	--	14.4	211.1*	56.5	3.5	97	16.9	189.5	57.2	22.8	85
HYLAND SEEDS HL-B42R	95	P250	1,2	14.8	195.6	58.7	11.1	98	--	--	--	--	--	--	14.1	195.7	59.6	4.4	97	15.5	195.5	57.8	17.8	99
HYLAND SEEDS HLCVR68	98	P250	1,2,3	16.0	207.8	58.3	1.3	100	--	--	--	--	--	--	14.9	207.2*	58.0	0.9	100	17.1	208.3	58.5	1.7	100
HYLAND SEEDS HL-R277	107			16.9	189.0	54.2	4.4	96	--	--	--	--	--	--	14.9	163.2	54.4	4.7	94	18.9	214.7*	53.9	4.1	98
INTEGRA SEED 9422 VT3	91			15.1	199.1	59.6	0.9	99	--	--	--	--	--	--	14.7	188.1	59.3	0.6	99	15.5	210.0*	59.8	1.2	98
INTEGRA SEED 9460 VT3	96			15.2	187.3	57.6	0.2	99	--	--	--	--	--	--	14.6	175.1	56.7	0.3	99	15.7	199.5	58.5	0.0	98
INTEGRA SEED 9481 VT3	97			15.5	207.1	56.6	0.7	100	--	--	--	--	--	--	14.5	201.8*	57.1	1.4	100	16.5	212.3*	56.1	0.0	100
LEGACY SEEDS L-3538VT3	95	P250	1,2,3	14.9	190.9	56.9	3.9	96	--	--	--	--	--	--	14.0	192.3	56.4	4.3	98	15.7	189.4	57.4	3.5	93
LEGACY SEEDS L-3610 VT3	96	P250	1,2,3	15.2	197.9	57.9	3.2	100	--	--	--	--	--	--	14.8	187.3	57.5	4.3	100	15.5	208.4	58.3	2.0	100
LEGACY SEEDS L-4029 VT3	100	P250	1,2,3	16.3	203.3	58.2	1.0	96	--	--	--	--	--	--	15.2	193.1	58.0	1.9	93	17.3	213.5*	58.4	0.0	99
MASTERS CHOICE MCT-480	90	P250	1	15.5	176.1	57.7	4.0	99	--	--	--	--	--	--	--	--	--	--	--	15.5	176.1	57.7	4.0	99
MYCOGEN 2h490	99	C250	1,2,3,4	16.3	196.6	56.3	11.3	98	--	--	--	--	--	--	14.3	184.4	56.8	22.6	98	18.3	208.7*	56.7	0.0	98
NK Brand N297 GT/CBLL Brand	92	C250	1,2,3,4	15.1	205.4	56.7	14.3	98	--	--	--	--	--	--	14.4	194.9	56.0	26.2	96	15.7	215.8*	57.3	2.3	93
NK Brand N39M 3000GT Brand	99	C250	1,2,3,4	16.1	197.9	55.1	0.3	93	--	--	--	--	--	--	14.7	204.5*	54.8	0.0	92	17.4	191.3	55.3	0.6	93
NuTech 3a-100 RR	100	C250	1	16.2	193.3	56.3	3.6	98	--	--	--	--	--	--	14.1	177.3	56.3	4.7	97	18.3	209.3*	56.3	2.4	98
NuTech 3T-098 VT3	97	C250	1,2,3	15.7	206.5	57.8	1.4	98	--	--	--	--	--	--	14.7	198.1	56.5	2.2	97	16.6	214.8*	59.0	0.6	99
NuTech 3T-401 VT3	101	C250	1,2,3	16.3	194.6	58.5	2.6	99	--	--	--	--	--	--	15.3	189.0	59.4	2.0	98	17.2	200.1	57.5	3.2	99
NuTech SN-102 GT/CBLL/RW	101	C250	1,2,3,4	15.6	196.0	56.6	3.9	94	--	--	--	--	--	--	14.4	194.9	56.6	5.7	92	16.8	197.1	56.6	2.1	96
NuTech SN-197 GT/CBLL/RW	97	C250	1,2,3,4	16.1	204.0	56.6	1.3	94	--	--	--	--	--	--	14.8	203.2*	57.2	1.6	93	17.3	204.7	55.9	1.0	94
PIONEER P0125HR	101	P1250	1,2,4,11,13	16.6	212.9*	57.1	1.5	98	--	--	--	--	--	--	15.2	209.6*	57.0	0.6	96	17.9	216.2*	57.1	2.3	100
RENK RK434RR	92	P250	1	14.3	181.7	56.9	1.7	98	--	--	--	--	--	--	14.0	180.9	56.1	0.2	97	14.6	182.5	57.6	2.1	98
RENK RK501V13	95	P250	1,2,3	14.7	204.4	57.6	1.4	99	--	--	--	--	--	--	14.3	204.9*	57.2	1.1	99	15.1	203.8	58.0	1.7	99
RENK RK559V13P	95	P250	1,2,3	15.2	200.9	59.3	0.8	96	--	--	--	--	--	--	14.4	201.6*	59.2	0.7	96	16.0	200.2	59.4	0.9	96
RENK RK563CBLLRW	98	C250	2,3,4	15.2	186.7	54.4	1.2	97	--	--	--	--	--	--	13.9	168.9	54.2	2.0	98	16.5	204.4	54.5	0.3	95
RENK RK565GTCBLLRW	99	P250	1,2,3,4	16.0	202.1	57.0	4.1	98	--	--	--	--	--	--	14.8	210.6*	57.8	6.4	99	17.2	193.5	56.2	1.8	96
RENK RK619SSTX	101	P250	1,2,3,4	16.4	217.0*	57.4	3.5	100	--	--	--	--	--	--	15.0	207.2*	58.2	6.6	100	17.8	221.7*	56.6	0.3	99
RUPP 8XP58A	100	P250	1,2,3	16.3	198.4	58.2	1.9	95	--	--	--	--	--	--	15.1	207.4	58.6	1.4	94	17.4	206.6	57.8	2.4	95
RUPP XR1588	100	C250	1,2,3	16.3	189.4	58.1	2.9	85	--	--	--	--	--	--	14.7	175.3	58.3	2.3	89	17.9	203.5	57.9	3.5	80
RUPP XR8002	94	P250	1,2,3	14.4	195.7	56.5	5.2	97	--	--	--	--	--	--	13.9	199.7*	56.2	0.9	98	14.9	191.6	56.7	9.4	96
RUPP XR8052	96	P250	1,2,3	15.4	197.2	58.5	4.0	95	--	--	--	--	--	--	14.8	193.8	57.5	4.2	89	16.0	200.5	59.5	3.7	100
RUPP XR8495	95	P250	1,2,3	15.3	194.4	57.8	1.1	98	--	--	--	--	--	--	--	--	--	--	15.3	194.4	57.8	1.1	98	
STEWART 4T722	99			15.4	193.9	56.1	0.9	99	--	--	--	--	--	--	14.2	185.3	56.1	0.6	98	16.5	202.5	56.1	1.1	99
STEWART 5T555	101	P250	1,2,3	16.6	209.3*	57.6	5.4	99	--	--	--	--	--	--	14.9	196.4	57.2	5.0	97	18.2	222.2*	57.9	5.8	100
STEYER EXP1002 RR	100	C250	1,2,3	16.4	214.2*	58.1	2.1	97	--	--	--	--	--	--	15.2	207.5*	58.2	2.1	96	17.6	220.9*	58.0	2.1	97
AVERAGE				15.6	200.7	57.4	3.1	97	--	--	--	--	--	--	14.6	197.7*	57.2	4.0	97	16.5	204.0*	57.5	2.4	97
HIGHEST				17.7	225.0	59.9	14.3	100	--	--	--	--	--	--	16.3	222.9*	59.8	27.0	100	19.0	227.1*	60.6	22.8	100
LOWEST				14.1	173.9	54.2	0.2	85	--	--	--	--	--	--	13.9	163.2*	54.2	0.0	88	14.3	176.1*	53.9	0.0	80
CV (%)				4.6	8.2	2.7	299.7	4.0	--	--	--	--	--	--	3.2	8.8*	2.7	313.7	4.0	3.4	6.5*	2.6	189.2	4.0
LSD (5%)				0.7	16.2	1.5	9.2	4.0	--	--	--	--	--	--	0.7	24.1*	2.1	17.3	6.0	0.8	18.5*	2.1	6.2	5.0

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

-2 Year Averages Continued On Page 17.

TABLE 2L.

ALLEGAN, INGHAM & SAGINAW COUNTY GRAIN TRIALS - LATE (102 Day and Later)

ZONE 2

BRAND/HYBRID	RM	TRT	LATE - TRIAL AVERAGE				ALLEGAN - LATE				INGHAM - LATE				SAGINAW - LATE					
			%H2O	BU/A	Twt	%SSL	%SSd	%H2O	BU/A	Twt	%SSL	%SSd	%H2O	BU/A	Twt	%SSL	%SSd			
AGRIGOLD A6309STX	103	P250	1,2,3	18.9	187.0	57.1	2.7	95	17.3	166.4	4.7	93	--	--	20.4	207.6	57.8	0.6	97	
AGRIGOLD A6323GT3	103	C250	1,2,3	17.4	196.9	57.3	3.0	93	16.1	177.2 *	5.6	97	--	--	18.7	216.6	56.0	0.3	89	
BAYSIDE 9104GT	104	1	200.1 *	17.3	200.1 *	56.7	3.9	99	15.8	168.3	56.6	7.8	100	--	--	18.8	231.9 *	56.8	0.0	98
CHANNEL 201-16V/T3 Brand	105	1,2,3,4	16.5	181.2	57.6	7.8	100	15.2	151.5	57.2	10.6	100	--	--	--	17.8	210.8	57.9	4.9	100
CROPLAN 5237SS	101		18.2	192.7	56.0	1.8	96	16.4	169.4	55.4	3.2	99	--	--	19.9	216.0	56.6	0.3	92	
DAIRYLAND STEALTH-9206Q	106	C250	1,2,3,4	18.3	188.6	56.1	6.4	99	16.3	167.1	56.9	12.5	97	--	--	20.3	210.1	55.3	0.3	100
DAIRYLAND STEALTH-9703Q	103	C250	1,2,3,4	18.1	196.7	55.8	1.8	96	16.1	187.1 *	56.2	3.6	97	--	--	20.0	206.2	55.4	0.0	95
DEKALB DKC52-59 (VT3)	102	P250	1,2,3	16.7	201.5 *	56.3	5.2	98	15.3	174.9	56.7	9.1	96	--	--	18.1	228.0 *	55.8	1.2	99
DEKALB DKC54-16 (VT3)	104	P250	1,2,3	17.6	200.0 *	56.8	4.6	100	15.7	170.9	57.8	8.1	99	--	--	19.5	229.1 *	55.7	1.1	100
DEKALB DKC54-49 (VT3)	104	P250	1,2,3	16.0	173.6	58.7	8.8	99	15.2	145.6	58.6	15.5	100	--	--	16.8	201.5	58.8	2.0	98
DEKALB DKC57-50 (VT3)	107	P250	1,2,3	18.8	208.9 *	54.9	1.3	99	16.5	191.2 *	55.6	2.3	99	--	--	21.0	226.5 *	54.2	0.3	99
DEKALB DKC58-83 (GENV/T3P)	108			18.6	204.7 *	58.2	3.5	100	16.8	183.0 *	58.6	6.4	99	--	--	20.3	226.4 *	57.7	0.6	100
DEKALB DKC59-35 (VT3)	109	P250	1,2,3	20.5	212.1 **	55.7	4.4	97	17.4	198.5 **	57.3	8.5	98	--	--	23.6	225.7 *	54.0	0.3	95
DEKALB DKC59-64 (VT3)	109	P250	1,2,3	19.3	200.3 *	55.9	6.2	97	16.4	177.8 *	56.8	7.3	98	--	--	22.2	222.8 *	54.9	5.0	95
DEKALB DKC60-51 (VT3)	110	P250	1,2,3	19.7	204.3 *	56.4	0.5	94	17.5	185.5 *	57.1	0.9	96	--	--	21.8	223.0 *	55.6	0.0	91
DYNAGRO D44SS49	104	C250	1,2,3,4	18.1	205.2 *	57.1	5.7	99	16.3	180.3 *	57.5	9.7	98	--	--	19.8	230.1 *	56.6	1.7	99
G2 GENETICS 5H-005 RRI/HX	105	C250	1,2,4	20.2	206.3 *	53.5	2.2	98	17.9	186.1 *	54.9	3.4	100	--	--	22.5	226.4 *	52.1	0.9	95
G2 GENETICS 5H-007 RRI/HX	107	C250	1,2,4	18.8	202.6 *	56.7	2.8	86	16.8	176.8	59.4	5.5	90	--	--	20.7	228.4 *	54.0	0.0	82
G2 GENETICS 5H-608 RRI/HX	107	C250	1,2,4	19.3	212.0 *	55.3	3.6	97	17.4	184.2 *	56.3	5.9	96	--	--	21.2	239.8 *	54.2	1.2	97
G2 GENETICS 5H-905 RRI/HX	105	C250	1,2,4	17.8	204.2 *	54.7	3.2	98	16.0	185.2 *	55.2	3.7	96	--	--	19.6	223.1 *	54.1	2.6	100
G2 GENETICS 5X-007 RRI/HXT	107	C250	1,2,3,4	17.7	196.2	57.9	2.1	98	16.3	178.8 *	57.4	3.2	100	--	--	19.1	213.5	58.4	0.9	96
G2 GENETICS 5X-007A RRI/HXT	107	C250	1,2,3,4	17.8	194.6	57.1	2.7	95	16.6	171.2	58.1	5.4	96	--	--	19.0	217.9	56.1	0.0	94
G2 GENETICS 5X-905 RRI/HXT	105	C250	1,2,3,4	18.9	199.0 *	54.6	2.8	97	16.9	167.7	55.7	5.5	95	--	--	20.8	230.2 *	53.5	0.0	98
GARST 86J49-3000GT Brand	103	C250	1,2,3,4	17.1	187.3	56.1	6.7	96	15.7	171.0	56.3	9.6	96	--	--	18.4	203.6	55.8	3.8	96
GOLDEN HARVEST H-8211 3000GT Brand	105	C250	1,2,3,4	17.5	199.2 *	56.4	2.7	94	16.1	179.1 *	57.5	5.1	96	--	--	18.9	219.2 *	55.2	0.3	91
GREAT LAKES 5211GS	102	P250	1,2,3,4	18.3	203.0 *	56.4	4.5	84	16.4	180.0 *	56.9	8.3	74	--	--	20.1	226.0 *	55.9	0.7	94
HERITAGE 494V/3	102	P250	1,2,3	17.0	187.2	58.6	15.2	99	15.6	156.4	57.7	21.7	99	--	--	18.4	217.9	59.5	2.6	99
HERITAGE 8222GENV/T3P	102	P250	1,2,3	17.1	168.2	56.6	10.7	96	15.7	135.7	57.3	18.2	91	--	--	18.5	200.7	55.8	3.2	100
HERITAGE 8390GENSS	104	P250	1,2,3,4	17.7	190.6	55.9	2.8	97	16.3	168.7	55.4	4.4	95	--	--	19.0	212.5	56.4	1.2	99
HYLAND SEEDS HLB77R	108	P250	1,2	19.1	197.9 *	54.3	10.7	98	16.7	173.9	54.2	20.1	100	--	--	21.4	221.9 *	54.4	1.2	96
INTEGRA SEEDS 532 SS	104			18.0	190.5	57.2	5.4	97	16.3	173.0	57.7	8.6	98	--	--	19.7	208.0	56.6	2.2	96
LEGACY SEEDS L-4409 3000GT	102	C250	1,2,3,4	17.7	183.9	54.3	4.0	98	16.5	175.5	55.0	6.8	98	--	--	18.8	192.2	53.6	1.2	97
LEGACY SEEDS L-5309 3000GT	106	C250	1,2,3,4	18.6	205.5 *	53.8	2.5	98	16.5	185.4 *	54.5	4.6	98	--	--	20.6	225.5 *	53.1	0.3	98
LEGACY SEEDS L-5350 3000GT	104	C250	1,2,3,4	17.3	211.4 *	57.0	3.3	98	16.0	191.7 *	57.6	6.0	100	--	--	18.6	231.1 *	56.4	0.6	95
MYCOGEN 2H523	103	C250	1,2,3,4	18.6	197.6 *	57.0	5.2	100	16.2	188.4 *	57.9	9.8	100	--	--	20.9	206.7	56.0	0.6	99
NK Brand N49J 3000GT Brand	103			17.0	205.1 *	56.1	8.7	100	15.8	179.5 *	56.2	14.1	100	--	--	18.2	230.7 *	56.0	2.2	99
NK Brand N61P 3000GT Brand	105	C250	1,2,3,4	19.6	205.3 *	54.5	2.5	100	17.1	188.6 *	56.2	5.0	99	--	--	22.0	221.9 *	52.7	0.0	100
NuTech 2A-804	104	C250	5	17.3	185.5	57.3	1.3	92	16.1	159.0	58.2	1.2	94	--	--	18.4	211.9	56.3	1.3	89
NuTech 3A-406 GT	106	C250	1	18.7	190.9	54.6	2.8	97	17.1	170.6	54.6	1.4	100	--	--	20.3	211.1	54.5	4.1	93
NuTech 5N-705 GT/CB/L/RW	105	C250	1,2,3,4	18.4	183.7	55.9	1.6	96	16.9	153.7	56.5	3.2	93	--	--	19.8	213.6	55.2	0.0	99
NuTech 5N-803 GT/CB/L/RW	103	C250	1,2,3,4	16.9	192.3	56.1	15.0	98	15.6	158.6	56.3	20.4	99	--	--	18.1	225.9 *	55.9	9.5	96
NuTech 5N-804 GT/CB/L/RW	104	C250	1,2,3,4	17.4	201.1 *	56.7	1.2	100	16.0	178.0 *	57.1	2.3	100	--	--	18.8	224.2 *	56.2	0.0	99
PIONEER 35E40	105	P1250	1,2,4,11,12	18.6	208.3 *	57.3	2.2	99	17.5	183.0 *	58.0	3.8	98	--	--	19.7	233.5 *	56.6	0.6	100
PIONEER 36E53	102	P1250	1,2,4	17.1	184.4	56.4	2.4	90	15.9	151.2	56.7	4.7	93	--	--	18.3	217.5	56.1	0.9	87
PIONEER P0413XR	104	C250	1,2,3,4	18.2	194.6	58.7	2.3	95	16.9	175.6	59.0	4.6	95	--	--	19.5	213.6	58.4	0.0	95

		2009												2010															
		TRAIL AVERAGE				ALLEGAN - LATE				INGHAM - LATE				SAGINAW - LATE				TRAIL AVERAGE				ALLEGAN - LATE				INGHAM - LATE			
BRAND/HYBRID	RM	TRT	%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd		
DAIRYLAND STEALTH-9206Q	106	C250	1,2,3,4	23.6	189.6	53.9	3.7	98	21.7	187.5	54.5	6.4	97	--	--	--	--	25.4	191.6	53.3	0.9	99	--	--	--	--			
DEKALB DKC52-59 (VT3)	102	P250	1,2,3	20.6	204.5 *	54.6	3.3	96	19.6	201.7 *	54.8	5.2	97	--	--	--	--	21.5	207.3 *	54.3	1.3	95	--	--	--	--			
DEKALB DKC54-16 (VT3)	104	P250	1,2,3	22.6	207.3 *	54.4	3.2	99	20.9	204.1 *	55.0	5.1	99	--	--	--	--	24.3	210.4 *	53.8	1.2	98	--	--	--	--			
DYNAGRO D44SS49	104	C250	1,2,3,4	23.4	209.2 *	54.5	3.4	98	22.3	207.7 *	54.7	5.8	97	--	--	--	--	24.4	210.7 *	54.2	0.9	98	--	--	--	--			
G2 GENETICS 5H-007 RRI/HX	107	C250	1,2,4	24.1	204.5 *	54.1	1.8	88	23.1	200.5	55.5	3.1	90	--	--	--	--	25.1	208.4 *	52.7	0.4	85	--	--	--	--			
G2 GENETICS 5H-905 RRI/HX	105	C250	1,2,4	23.1	208.8 *	53.2	1.8	97	22.3	207.9 *	53.4	2.2	96	--	--	--	--	23.9	209.7 *	52.9	1.4	97	--	--	--	--			
PIONEER 35F40	105	P1250	1,2,4,11,12	23.6	212.0 **	54.6	1.5	99	22.0	215.4 **	55.0	2.2	99	--	--	--	--	25.1	208.6 *	54.1	0.8	99	--	--	--	--			
PIONEER 36V53	102	P1250	1,2,4	21.4	195.3	54.5	1.5	94	19.9	192.5	54.8	2.9	96	--	--	--	--	22.8	198.1 *	54.1	0.0	92	--	--	--	--			
RENK RK698/VT3	103	P250	1,2,3	20.9	207.0 *	55.2	2.3	99	20.1	209.0 *	55.1	3.8	99	--	--	--	--	21.7	205.0 *	55.3	0.8	98	--	--	--	--			
AVERAGE				22.6	204.2	54.3	2.5	96	21.3	202.9	54.7	4.1	97	--	--	--	--	23.8	205.5	53.8	0.8	96	--	--	--	--			
HIGHEST				24.1	212.0	55.2	3.7	99	23.1	215.4	55.5	6.4	99	--	--	--	--	25.4	210.7	55.3	1.4	99	--	--	--	--			
LOWEST				20.6	189.6	53.2	1.5	88	19.6	187.5	53.4	2.2	90	--	--	--	--	21.5	191.6	52.7	0.0	85	--	--	--	--			
CV (%)				6.2	7.7	1.9	115.2	50	6.0	8.2	1.7	79.1	50	--	--	--	--	7.7	7.3	1.7	181.6	4.0	--	--	--				
LSD (5%)				1.0	12.9	0.9	3.8	4.0	1.1	14.6	0.9	5.0	5.0	--	--	--	--	1.6	15.4	1.0	2.4	4.0	--	--	--	--			

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

TABLE 1E - Continued from page 9.

BRANCH, CASS & WASHTENAW COUNTY GRAIN TRIALS - EARLY (107 Day and Earlier) ZONE1

BRAND/HYBRID	RM	TRT	TRAIT	EARLY - TRIAL AVERAGE				BRANCH - EARLY				CASS - EARLY				WASHTENAW - EARLY							
				%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd
BECK 5354HXR™*	107	1,2,3,4	22.4	210.5 **	54.4	1.2	99	25.3	193.8 *	53.4	0.0	99	19.1	228.2 **	55.4	0.5	100	22.7	209.6 *	54.3	3.1	99	
DAIRYLAND STEALTH-9206Q	106	C250	1,2,3,4	20.8	200.0 *	53.9	2.9	98	23.7	190.2	53.6	0.3	97	17.7	199.9	54.4	1.2	98	21.0	209.9 *	53.6	7.2	98
DEKALB DKC52-59 (V73)	102	P250	1,2,3	18.3	203.1 *	54.2	3.2	99	20.0	193.7 *	53.2	0.0	100	16.8	207.0	54.9	0.7	99	18.2	208.6 *	54.4	8.9	99
DEKALB DKC54-16 (V73)	104	P250	1,2,3	20.0	195.3	53.9	2.9	99	22.2	185.4	54.8	0.0	100	17.9	203.8	52.8	1.4	99	19.8	196.8	54.1	7.4	98
DEKALB DKC57-50 (V73)	107	P250	1,2,3	22.4	196.4	53.0	0.9	97	25.6	195.5 *	52.1	0.0	98	19.4	200.0	53.9	0.9	97	22.1	193.8	53.1	1.7	97
DYNAGRO D455A49	104	C250	1,2,3,4	20.5	205.1 *	54.6	1.8	98	23.2	193.3 *	53.4	0.3	97	17.8	212.3 *	56.0	1.9	100	20.4	209.7 *	54.4	3.1	97
G2 GENETICS 1H-005 HXLL	105	C250	2,4	20.8	196.0	54.2	2.4	99	23.4	191.7	54.2	0.0	99	17.7	200.5	54.9	1.9	99	21.3	195.7	53.4	5.2	98
G2 GENETICS 5H-005 RRHX	105	C250	1,2,4	21.5	196.6	52.7	1.1	100	24.4	193.0 *	52.0	0.0	100	18.0	188.8	53.2	0.5	99	22.0	208.0 *	53.0	2.8	100
G2 GENETICS 5H-007 RRHX	107	C250	1,2,4	20.8	206.0 *	54.1	2.2	90	23.1	202.9 *	53.3	0.2	92	18.0	207.7	55.4	2.8	90	21.3	207.3 *	53.7	3.7	88
G2 GENETICS 5X-905 RRHX	105	C250	1,2,3,4	21.3	207.0 *	54.2	0.9	98	23.7	197.4 *	53.5	0.0	98	18.2	213.8 *	55.7	0.4	98	21.9	209.9 *	53.5	2.2	97
NuTech 3A-804 GT	104	C250	1	20.0	201.8 *	54.0	1.9	97	22.6	194.7	52.7	0.6	99	17.5	204.4	54.7	0.4	96	19.8	206.4 *	54.7	4.7	95
PIONEER 35F40	105	P1250	1,2,4,11,12	21.1	209.2 *	55.0	1.4	99	23.5	200.8 *	53.6	0.0	100	18.1	217.9 *	56.2	0.8	100	21.6	208.9 *	55.2	3.3	96
PIONEER 35K44	106	C250	1,2,3,11,12	20.7	197.8 *	55.8	1.3	97	23.2	184.4	54.6	0.2	96	18.5	208.2	56.3	0.4	96	20.5	200.9	56.4	3.2	98
RENK RK744VT3	107	P250	1,2	21.0	203.8 *	53.5	3.2	97	23.7	193.2 *	53.7	0.2	95	18.3	197.3	52.5	1.3	99	21.0	220.9 **	54.2	8.0	98
RUPP XR8013	107	P250	1,2,3	20.3	203.5 *	54.6	3.7	97	23.3	204.7 **	54.1	0.0	97	17.8	207.5	55.2	0.8	95	19.8	198.4	54.5	10.4	98
WELLMAN W2007VT3	107	P250	1,2,3	20.7	205.5 *	54.4	3.5	97	23.3	194.3 *	54.1	0.2	95	18.1	213.1 *	55.0	1.0	97	20.8	209.1 *	54.1	9.4	99
WELLMAN W2007	106			20.2	200.9 *	54.9	1.2	98	23.3	196.3 *	53.1	0.3	98	17.4	195.7	55.3	0.9	98	19.8	210.6 *	56.2	2.4	97
AVERAGE				20.8	202.3	54.2	2.1	98	23.4	194.4	53.5	0.1	98	18.0	206.3	54.8	1.1	98	20.8	206.2	54.3	5.1	97
HIGHEST				22.4	210.5	55.8	3.7	100	25.6	204.7	54.8	0.6	100	19.4	228.2	56.3	2.8	100	22.7	220.9	56.4	10.4	100
LOWEST				18.3	195.3	52.7	0.9	90	20.0	184.4	52.0	0.0	92	16.8	188.8	52.5	0.4	90	18.2	193.8	53.0	1.7	88
CV (%)				5.5	8.4	3.9	185.2	4.0	6.1	6.7	24	289.9	3.0	4.5	8.3	2.6	193.3	4.0	6.3	8.6	2.0	103.0	5.0
LSD (5%)				0.8	12.9	1.7	3.8	3.0	1.1	12.3	1.3	1.0	3.0	0.7	16.2	1.4	1.8	4.0	1.2	15.8	1.1	6.4	5.0

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

TABLE 2E - Continued from page 13.

ZONE 2
ALLEGAN, INGHAM & SAGINAW COUNTY GRAIN TRIALS - EARLY (101 Day and Earlier)

BRAND/HYBRID	RM	TRT	EARLY - TRIAL AVERAGE			ALLEGAN - EARLY			INGHAM - EARLY			SAGINAW - EARLY						
			%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd	
CHANNEL 199-55VT3 Brand	97	1,2,3,4	20.1	211.6 *	55.0	0.5	99	--	--	--	--	--	19.9	225.1 *	55.6	0.7	100	
DAIRYLAND STEALTH-9799	99	C250	1,2,3	19.6	210.5 *	54.9	0.2	98	--	--	--	--	19.7	211.7 *	54.1	0.0	98	
DEKALB DKC42-72 (VT3)	92	P250	1,2,3	18.4	199.9	55.4	1.1	98	--	--	--	--	18.7	196.3	54.7	2.2	98	
DEKALB DKC48-37 (VT3)	98	P250	1,2,3	19.1	203.7 *	56.0	1.1	97	--	--	--	--	19.1	208.8	55.4	1.1	97	
DEKALB DKC50-35 (VT3)	100	P250	1,2,3	20.4	209.0 *	54.7	7.1	97	--	--	--	--	19.7	218.1 *	54.2	13.5	98	
DEKALB DKC50-66 (VT3)	100	P250	1,2,3	19.4	202.6	54.8	0.7	98	--	--	--	--	19.3	216.7 *	54.6	0.8	98	
DYNAGRO 54V78	96	1,2,3	18.2	201.2	55.0	1.4	99	--	--	--	--	--	17.9	205.0	54.4	1.1	98	
DYNAGRO V3883VT3	98	1,2,3	20.1	207.8 *	55.1	0.7	98	--	--	--	--	--	20.0	217.1 *	54.2	0.6	99	
G2 GENETICS 5H-700B RRHX	100	C250	1,2,4	20.7	210.8 *	54.0	6.3	97	--	--	--	--	20.0	214.5 *	52.9	11.8	99	
G2 GENETICS 5H-702 RRHX	101	C250	1,2,4	21.9	217.4 **	54.2	1.4	96	--	--	--	--	21.2	226.2 **	54.3	1.4	97	
G2 GENETICS 5H-999 RRIHX	97	C250	1,2,4	20.2	201.5	54.8	2.1	97	--	--	--	--	19.4	211.1 *	54.4	1.2	98	
HYLAND SEEDS HLCVR68	98	P250	1,2,3	20.0	207.8 *	55.4	1.1	99	--	--	--	--	19.8	213.4 *	54.9	0.9	99	
LEGACY SEEDS L-3538V3	95	P250	1,2,3	19.4	196.9	54.8	2.5	94	--	--	--	--	18.8	206.5	54.3	2.5	97	
NuTech 31-098 VT3	97	C250	1,2,3	19.9	208.0 *	55.0	1.0	97	--	--	--	--	19.9	214.6 *	54.0	1.1	98	
RUPP 8XP58A	100	P250	1,2,3	20.3	198.2	55.2	1.1	97	--	--	--	--	20.3	210.7 *	54.9	0.9	97	
RUPP XR1588	100	C250	1,2,3	20.6	200.2	55.2	1.6	91	--	--	--	--	19.8	206.3	55.0	1.2	93	
RUPP XR8002	94	P250	1,2,3	17.8	202.3	55.1	2.9	96	--	--	--	--	18.0	207.8	54.4	0.9	99	
AVERAGE	19.8	205.3	55.0	1.9	97								19.5	212.3	54.5	2.5	98	
HIGHEST	21.9	217.4	56.0	7.1	99								21.2	226.2	55.6	13.5	100	
LOWEST	17.8	196.9	54.0	0.2	91								17.9	196.3	52.9	0.0	93	
CV (%)	5.9	8.2	2.3	277.0	4.0								7.5	8.6	2.0	263.8	4.0	
LSD (5%)	0.8	14.1	1.1	6.6	3.0								1.2	17.1	1.1	8.7	3.0	
														1.2	14.7	1.1	3.2	4.0

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

TABLE 3E.

HURON, MASON & MONTCALM COUNTY GRAIN TRIALS - EARLY (97 Day and Earlier)

ZONE 3

BRAND/HYBRID	RM	TRT	EARLY - TRIAL AVERAGE			HURON - EARLY			MASON - EARLY			MONTCALM - EARLY											
			%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt								
AgVenture EX268223	97	P250	1,23.4	17.1	203.4	55.6	6.3	93	16.2	166.2	55.1	1.3	85	17.8	247.6 *	56.3	0	96	17.3	196.3	55.3	17.7	99
BAYSIDE 3090GT CBLL	90	1,2	15.6	211.4 *	55.8	3.9	94	15.5	188.7 *	56.1	5.7	87	15.7	234.1	55.4	2.0	100	--	--	--	--	--	--
BAYSIDE 4090	90		15.7	199.2	54.8	7.8	96	15.2	170.0	55.7	2.9	87	15.7	235.6	55.0	3.4	100	16.3	191.9	53.8	17.0	100	
BAYSIDE 8093 3000GT	93	1,2,3	16.5	197.5	55.7	13.0	96	15.8	155.1	55.9	5.1	87	17.1	235.9	56.4	0.3	100	16.5	201.5	54.7	33.6	100	
BAYSIDE 9091	91		15.5	182.4	56.3	16.9	99	15.0	152.4	54.9	23.5	98	16.2	235.9	58.4	4.3	100	15.4	158.8	55.6	23.0	100	
BAYSIDE 9096	96		15.5	181.3	57.2	17.3	96	15.3	153.7	57.8	5.4	88	15.9	207.6	58.1	2.6	100	15.2	182.6	55.8	44.0	100	
CHANNEL 196-06VT3 Brand	96	1,2,3	16.4	212.5 *	56.7	3.3	98	15.4	194.6 *	56.2	3.9	95	17.2	244.9 *	58.2	0	100	16.7	198.1	55.8	5.9	98	
CHANNEL 199-55VT3 Brand	97		16.5	205.8	55.2	8.6	98	15.2	171.7	54.2	8.0	94	17.5	243.0 *	57.5	2.9	100	16.8	202.6	54.0	14.8	99	
CROPLAN 3724VT3	96	C250	1,2,3	16.7	201.0	56.1	20.7	98	15.6	185.0 *	55.5	2.6	94	17.7	233.4	57.8	2.9	100	16.8	184.0	55.1	56.6	100
DAIRYLAND STEALTH-6494	94	C250		15.8	203.2	55.7	10.8	98	15.3	178.9 *	55.3	2.1	94	16.6	244.6 *	56.7	0.8	100	15.6	186.2	55.2	29.6	100
DAIRYLAND STEALTH-6992	92	C250	1,2	15.5	201.5	55.7	10.8	99	15.3	176.6 *	56.1	3.5	97	15.7	226.9	55.6	0.3	100	15.6	200.9	55.5	28.5	100
DAIRYLAND STEALTH-9196	96	C250	1,2,3	16.1	200.4	56.5	8.8	96	15.5	172.1 *	55.7	3.8	87	16.9	231.5	58.3	1.1	100	16.0	197.6	55.6	21.6	100
DAIRYLAND STEALTH-9395	95	C250	1,2,3	15.5	205.4	54.7	24.3	97	14.9	183.2 *	54.9	6.9	91	15.5	229.9	56.1	1.7	100	16.0	203.1	53.1	64.4	100
DAIRYLAND STEALTH-9789	89	C250	1,2,3	16.1	205.8	56.4	13.9	99	15.3	196.6 *	55.8	2.2	99	16.9	249.5 *	57.9	0.3	100	16.1	171.4	55.6	39.1	99
DEKAIB DKC38-89 (VT3)	88	P250	1,2,3	16.3	194.2	55.8	1.4	99	15.5	177.8 *	56.5	1.5	96	16.9	233.6	56.7	0.6	100	16.4	171.2	54.1	2.0	100
DEKAIB DKC42-72 (VT3)	92	P250	1,2,3	15.8	201.4	55.9	2.2	97	15.1	191.8 *	56.3	1.8	94	16.4	226.4	56.1	0.3	98	15.9	186.0	55.2	4.6	99
DEKAIB DKC43-27 (VT3)	93	P250	1,2,3	15.7	204.4	56.5	15.7	99	15.2	182.9 *	57.0	3.3	98	15.8	227.4	57.1	0	99	16.1	202.8	55.5	43.7	100
DEKAIB DKC45-52 (GENVT3P)	95		16.1	210.6	57.4	12.0	100	15.2	195.1 *	56.7	4.2	99	16.8	255.5 *	58.3	0	100	16.2	181.2	57.1	31.9	100	
DYNAGRO 54W78	96	C250	1,2,3	15.4	200.9	55.0	11.2	99	14.9	174.0 *	55.0	10.3	98	15.7	234.7	55.8	1.7	100	15.6	194.0	54.3	21.6	100
DYNAGRO D32RR29	92	C250	1	15.8	200.0	57.1	10.4	99	15.1	175.6 *	55.4	4.7	96	16.0	228.5	59.6	0	100	16.2	195.8	56.3	26.4	100
DYNAGRO D35RR0	94	C250	1	15.8	225.1 **	55.4	6.4	95	15.2	193.7 *	55.0	3.5	91	16.6	251.7 *	56.7	0	99	15.7	230.0 **	54.6	15.0	96
DYNAGRO D36SS39	96	C250	1,2,3,4	16.3	199.1	57.2	5.4	98	15.5	188.3 *	58.8	0.3	95	17.1	219.5	56.5	0.3	99	16.3	189.5	56.2	15.5	100
G2 GENETICS 5H-597 RRHHX	97	C250	1,2,4	16.7	211.4 *	55.5	8.5	98	15.9	182.9 *	56.7	1.5	94	17.2	241.8	55.2	0	100	17.0	209.6 *	54.6	23.4	99
G2 GENETICS 5H-597 RRHHX	97	C250	1,2,4	16.5	201.0	54.1	13.0	96	15.4	157.3	51.6	7.9	91	17.1	246.0 *	56.1	0.6	98	17.0	199.7	54.5	30.5	100
G2 GENETICS 5H-696 RRHHX	96	C250	1,2,4	17.1	208.3	56.0	15.9	97	17.2	194.1 *	57.1	2.2	90	17.9	248.3 *	55.6	0	100	16.3	182.4	55.3	45.4	100
G2 GENETICS 5H-797 RRHHX	97	C250	1,2,4	16.5	206.7	54.8	2.2	95	15.5	171.1	54.8	1.2	89	17.6	232.9	55.0	0	97	16.5	216.1 *	54.6	5.4	98
G2 GENETICS 5H-897 RRHHX	97	C250	1,2,4	16.9	206.6	57.3	11.8	99	16.0	150.9	57.4	0.3	96	18.2	241.0	57.9	0	100	16.6	228.0 *	56.5	35.1	100
G2 GENETICS 5H-999 RRHHX	97	C250	1,2,4	17.0	212.4 *	56.4	12.7	97	15.9	198.7 **	56.5	5.0	93	17.4	243.4 *	57.7	0.3	99	17.8	195.2	55.0	32.8	99
GARST 89K65-3000GT Brand	89	C250	1,2,3,4	15.9	199.5	57.7	0.6	97	15.4	180.1 *	57.9	0.9	94	16.4	218.9	57.4	0.3	100	--	--	--	--	--
GOLDEN HARVEST H-7044 3000GT Brand	96	C250	1,2,3,4	16.1	200.6	55.1	5.2	97	15.5	171.7	54.8	1.3	90	16.7	234.9	56.2	0.6	100	16.2	195.2	54.4	13.8	100
GREAT LAKES 4041G3VT3	90	P250	1,2,3	15.9	200.1	56.1	6.2	99	15.2	183.6 *	55.5	2.9	96	17.1	243.9 *	56.9	0.3	100	15.5	172.7	56.0	15.5	100
GREAT LAKES 4415G3VT3	94	P250	1,2,3	15.7	196.4	55.9	7.3	96	15.1	175.7 *	55.9	4.7	90	16.1	219.6	56.7	1.7	99	16.0	193.8	55.1	15.5	100
GREAT LAKES 4481G3VT3	94	P250	1,2,3	15.8	202.4	56.8	15.2	97	15.3	187.0 *	57.4	1.9	90	16.5	243.7 *	57.3	0.9	100	15.5	176.5	55.6	42.8	100
GREAT LAKES 4664G3VT3	96	P250	1,2,3	15.5	189.0	54.8	6.5	99	14.9	159.6	54.1	1.7	98	15.9	231.3	55.4	2.6	100	15.6	176.2	54.8	15.2	100
HYLAND SEEDS HL8454	92	P250	1,2,3,4	15.6	196.8	54.9	6.7	100	15.0	174.8 *	54.9	2.3	100	16.1	230.1	56.4	0.6	100	15.7	185.4	53.3	17.3	100
HYLAND SEEDS HB40R	95	P250	1,2	16.9	198.8	55.1	34.2	92	15.3	153.5	55.6	12.4	84	17.8	251.7 *	56.0	4.4	98	17.5	191.3	53.8	85.7	95
HYLAND SEEDS HB42R	95	P250	1,2	15.9	198.5	54.9	24.6	99	15.0	157.3	51.6	13.3	97	16.6	250.0 *	57.9	3.7	100	16.0	188.1	55.2	56.8	99
HYLAND SEEDS HLCVR48	90	P250	1,2,3	15.7	191.8	57.8	4.0	97	15.2	168.8	57.2	1.6	92	16.4	214.0	59.3	1.5	99	15.5	192.6	57.0	8.9	100
HYLAND SEEDS HLCVR64	95	P250	1,2,3	15.6	201.1	54.2	3.8	100	14.6	171.3	54.1	4.3	99	16.6	230.6	54.7	0.3	100	15.6	201.4	53.8	6.9	100
INTEGRA SEED 9361VT3	86			15.6	194.2	55.8	6.6	98	15.2	176.0 *	55.9	0.8	95	15.8	219.2	56.7	0	100	15.7	187.3	54.8	19.0	100
INTEGRA SEED 9422VT3	91	16.0	215.0 *	57.8	15.8	99	15.4	197.8 *	58.4	0.8	98	16.5	256.3 **	57.6	0.3	100	16.0	191.0	57.4	46.3	100		
INTEGRA SEED 9460VT3	96	16.3	198.1	56.6	3.6	97	15.7	183.9 *	56.6	3.7	91	17.2	227.4	57.9	0.3	100	16.0	183.0	55.4	6.9	100		
INTEGRA SEED 9481VT3	97	16.3	205.8	55.5	3.5	99	15.5	186.5 *	55.4	2.3	97	17.2	240.8	56.5	2.0	100	16.1	190.0	54.7	6.3	100		
LEGACY SEEDS L-3009 RR	92	P250	1	15.5	188.2	54.1	6.3	98	14.9	169.6	53.1	2.4	94	15.8	224.2	54.5	0.3	100	15.9	170.9	54.6	16.1	100
LEGACY SEEDS L-3538VT3	95	P250	12,3	15.9	195.2	55.4	13.1	99	15.2	160.2	55.3	1.5	97	16.6	227.8	56.3	2.6	99	15.9	197.6	54.6	35.1	100

LEGACY SEEDS L-3610 VT3	96	P250	12.3	16.2	206.6	57.0	3.3	99	15.3	182.7 *	56.2	0.9	98	16.9	240.5	57.7	2.3	100	16.3	196.5	57.0	6.6	100
NK Brand N29T GT/CB/LL Brand	92	C250	12.3,4	15.8	210.3	55.3	11.1	98	15.4	193.5 *	56.3	2.3	94	15.8	241.4	55.8	3.7	100	16.3	195.9	53.8	27.4	100
NK Brand N33R GT/CB/LL Brand	94			15.6	206.7	56.3	4.0	95	15.2	170.0	57.7	2.5	87	15.7	251.5 *	57.0	0.0	100	15.9	198.5	54.2	9.5	99
NK Brand N34N 3000GT Brand	95	C250	12.3,4	16.3	209.0	55.4	5.9	99	15.5	177.5 *	55.2	1.7	96	16.8	238.2	56.4	1.2	100	16.7	211.3 *	54.7	14.9	100
NuTech 0A-693	93	C250	15.9	190.3	55.5	12.6	97	15.2	158.9	55.9	3.8	91	16.5	229.5	56.2	1.1	100	16.0	182.6	54.4	32.8	100	
NuTech 3C-889 RR/GCB	89	P250	1.2	15.7	205.6	57.1	8.1	97	15.4	191.3 *	58.0	0.9	92	15.8	227.7	57.6	0.0	100	15.9	197.9	55.8	23.5	99
NuTech 3T-098 VT3	97	C250	1.2,3	16.5	208.5	55.8	6.4	98	15.4	178.0 *	54.6	5.5	95	17.1	247.6 *	57.6	1.4	100	17.0	199.8	55.2	12.4	100
NuTech 3T-294 VT3	94	P250	1.2,3	16.1	203.7	58.7	15.5	99	15.5	172.9 *	57.6	8.2	99	16.8	239.4	60.8	0.3	99	16.0	198.7	57.8	38.0	100
NuTech 3T-393 VT3	93	C250	1.2,3	15.7	200.8	56.1	8.7	94	15.0	163.2	56.1	2.9	84	15.9	234.2	58.0	0.6	99	16.1	204.9	54.3	22.5	99
NuTech 5N-197 GT/CB/LLRW	97	C250	12.3,4	17.1	210.7	55.8	11.2	96	16.5	180.6 *	55.5	1.9	93	18.0	249.7 *	55.9	3.0	98	16.9	201.7	55.9	28.7	98
NuTech 5N-197A GT/CB/LLRW	97	C250	12.3,4	16.9	210.9 *	55.7	13.7	97	16.3	180.5 *	55.4	2.7	93	17.7	246.2 *	55.7	1.4	99	16.7	206.0 *	56.0	36.9	98
NuTech 5N-593 GT/CB/LLRW	93	C250	1.2,3,4	16.0	204.4	56.4	12.7	97	15.7	189.3 *	59.3	2.1	92	15.9	234.7	56.9	1.4	99	16.4	189.1	53.1	34.5	100
NuTech 5N-695 GT/CB/LLRW	95	C250	12.3,4	16.1	183.6	56.5	13.0	92	15.7	147.4	58.6	7.0	80	16.7	225.6	56.7	5.5	98	15.9	177.8	54.3	26.6	99
PIONEER 38NB8	92	P1250	1,2,4,11,12	15.9	194.4	57.8	1.0	99	15.0	167.5	56.5	2.0	97	16.7	221.2	59.0	0.0	100	--	--	--	--	--
RENK RK302GTCBL	89	C250	12.4	15.7	197.5	55.3	8.1	97	15.2	180.6 *	55.4	6.3	91	16.0	238.1	55.5	3.2	100	15.9	173.7	54.9	14.7	100
RENK RK334RR	89	P250	1	15.7	195.5	55.2	8.3	98	14.9	169.0	55.1	3.7	95	16.0	228.0	56.6	0.3	100	16.2	189.5	54.0	21.0	100
RENK RK434RR	92	P250	1	15.3	193.6	54.7	8.4	99	14.7	180.3 *	54.1	4.4	97	15.7	229.7	55.1	0.9	100	15.6	170.8	54.8	19.9	100
RENK RK501VT3	95	P250	12,3	15.8	203.1	56.5	6.4	97	15.5	177.5 *	56.4	3.0	90	16.2	237.2	58.3	0.6	100	15.8	194.6	54.8	15.6	100
RENK RK559VT3P	95	P250	12,3	16.1	206.8	57.0	4.1	97	15.5	176.6 *	57.4	1.8	90	16.9	245.0 *	57.9	0.0	100	16.0	198.9	55.7	10.6	100
RENK RK570VT3	95	P250	12,3	15.4	196.3	55.2	10.2	98	14.8	170.9	54.2	3.0	94	15.8	223.7	56.8	1.1	100	15.7	194.3	54.7	26.5	100
RUPP 8XP67	92	P250	1	15.7	210.1	56.1	11.9	99	15.2	175.4 *	57.4	1.2	96	16.0	234.9	55.7	0.0	100	15.8	220.1 *	55.3	34.5	100
RUPP XR8002	94	P250	12,3	15.7	200.3	55.1	11.0	96	15.2	167.0	55.2	4.9	89	15.9	236.8	55.3	2.6	100	16.0	197.1	54.9	25.6	100
RUPP XR8052	96	P250	12,3	16.7	196.4	56.7	6.7	97	15.7	167.9	56.1	1.0	92	17.5	234.2	57.9	1.2	100	16.9	187.2	56.1	17.9	99
RUPP XR8495	95	P250	1,2,3	15.9	204.9	57.2	11.9	100	15.4	196.3 *	57.2	5.4	99	16.6	227.7	59.3	0.0	100	15.8	190.7	55.0	30.2	100
STEYER 8/01 3000GT	87	C250	1,2,3,4	15.7	188.3	56.0	2.8	99	14.9	161.9	55.2	4.6	97	16.4	214.6	56.7	0.9	100	--	--	--	--	--
STEYER 9005 3000GT	90	C250	1,2,3,4	16.4	202.6	56.3	8.1	95	15.9	174.8 *	56.4	2.2	86	16.9	239.0	57.3	0.6	100	16.3	193.9	55.1	21.4	99
STEYER 9501 3000GT	95	C250	15.9	191.4	55.2	8.9	95	15.5	163.4	56.0	0.7	85	16.0	228.0	56.5	0.6	100	16.3	182.8	53.2	25.3	100	
AVERAGE				160	201.3	56.0	9.6	97	15.4	175.7	55.9	3.7	93	16.6	235.3	56.9	1.2	100	16.1	192.7	55.1	25.2	100
HIGHEST				17.1	225.1	58.7	34.2	100	17.2	198.7	59.3	23.5	100	18.2	256.3	60.8	5.5	100	17.8	230.0	57.8	85.7	100
LOWEST				15.3	181.3	54.1	0.6	92	14.6	147.4	51.6	0.3	80	15.5	207.6	54.5	0.0	96	15.2	158.8	53.1	2.0	95
CV (%)				3.4	8.9	3.2	132.6	4.0	2.6	10.9	4.1	132.3	6.0	2.5	4.4	24	165.0	1.0	3.5	9.1	2.3	80.7	1.0
LSD (5%)				0.4	14.3	1.4	10.7	3.0	0.6	26.8	3.2	6.9	8.0	0.6	14.4	1.9	2.7	2.0	0.8	24.4	1.8	28.4	2.0

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

-2 Year Averages Continued On Page 21.

TABLE 3L.

HURON, MASON & MONTCALM COUNTY GRAIN TRIALS - LATE (98 Day and Later)

ZONE 3

BRAND/HYBRID	RM	TRT	TRAIT	LATE-TRIAL AVERAGE				HURON-LATE				MASON-LATE				MONTCALM-LATE							
				%H2O	BU/A	Twt	%SSL	%H2O	BU/A	Twt	%SSL	%H2O	BU/A	Twt	%SSL	%SD	%H2O	BU/A	Twt	%SSL			
AgVenture EX03076	98	C250	1,2,4	16.4	194.4	56.0	2.7	97	15.8	156.8	54.3	0.3	91	17.0	225.9	57.6	0.0	100	16.4	200.5	56.1	7.8	100
CHANNEL 20184R Brand	101	C250	1,2,3	16.9	200.1	56.3	19.7	97	15.6	171.3	56.1	3.4	92	18.1	240.6	58.6	1.2	100	16.9	188.3	54.1	54.4	100
CROPLAN 5237SS	101	P250	4	18.5	214.7	54.9	4.0	98	16.8	167.7	55.2	3.5	97	20.3	252.4	54.9	0.0	98	18.3	224.1*	54.5	8.6	100
CROPLAN 5338SS	103	C250	4	18.9	190.3	54.3	9.0	93	16.9	113.8	54.1	4.8	86	20.2	253.0	54.7	0.0	98	19.6	204.2	54.2	22.1	94
DAIRYLAND STEALTH-1898	98	C250	4	16.8	196.2	57.6	9.4	97	16.2	172.0*	55.3	1.7	91	17.4	230.6	59.4	1.2	99	16.8	186.1	58.1	25.3	100
DEKALB DKC48-37 (VT3)	98	P250	1,2,3	16.2	200.9	58.0	7.7	96	15.7	175.1*	57.9	2.3	90	16.7	229.5	58.3	0.6	98	16.2	198.2	57.8	20.1	100
DEKALB DKC50-35 (VT3)	100	P250	1,2,3	16.7	203.0	56.2	3.5	98	15.5	173.9*	56.7	2.3	96	17.4	239.2	56.8	0.0	99	17.3	195.8	55.1	8.3	100
DEKALB DKC50-66 (VT3)	100	P250	1,2,3	16.4	210.6	58.5	19.1	99	15.6	195.8*	57.6	1.5	96	16.9	236.7	59.3	0.6	100	16.8	199.3	58.6	55.2	100
DEKALB DKC51-86 (GENVT3P)	101	C250	1,2,3	16.9	198.8	55.8	23.4	98	15.7	175.2*	55.9	1.1	94	17.6	242.0	56.1	0.0	100	17.3	179.1	55.5	69.0	100
DEKALB DKC52-59 (VT3)	102	P250	1,2,3	17.4	220.0*	55.3	16.9	97	16.4	198.1*	55.2	3.0	91	18.2	251.2	55.7	3.2	100	17.7	210.8*	55.1	44.6	100
DEKALB DKC54-16 (VT3)	104	P250	1,2,3	18.4	209.7	55.4	7.5	100	17.3	184.8*	56.7	0.6	100	19.2	252.6	55.0	0.3	100	18.7	191.7	54.6	21.5	100
DEKALB DKC54-49 (VT3)	104	P250	1,2,3	17.1	206.4	57.5	21.7	98	16.0	184.3*	58.3	7.2	96	18.2	238.4	57.1	0.3	99	17.1	196.4	57.1	57.5	100
DYNAGRO D405S09	101	C250	1,2,3,4	17.5	209.9	57.5	11.3	94	16.7	177.7*	56.2	0.6	82	18.2	245.6	59.9	0.0	100	17.5	206.4	56.3	33.4	100
DYNAGRO D44S549	104	C250	1,2,3,4	18.2	208.5	55.1	16.2	98	17.0	176.2*	54.8	2.6	95	19.2	250.0	55.7	2.3	100	18.5	199.2	54.7	43.7	100
DYNAGRO V3883VT3	98	C250	1,2,3	16.6	204.0	55.7	5.2	99	15.9	178.9*	55.4	2.1	97	17.3	250.0	56.9	2.3	99	16.7	198.0	54.9	11.2	100
G2 GENETICS 5H-501 RR/HX	101	C250	1,2,4	18.5	214.1	55.6	3.5	96	17.6	178.5*	55.6	3.1	89	18.7	249.3	56.5	0.0	98	19.1	214.6*	54.6	7.5	100
G2 GENETICS 5H-502 RR/HX	101	C250	1,2,4	18.5	225.7*	56.6	2.5	98	18.1	197.3*	56.3	0.0	93	18.7	255.2	58.0	0.0	100	18.6	224.5*	55.5	7.5	100
G2 GENETICS 5H-506 RR/HX	106	C250	1,2,4	--	--	--	--	--	--	--	--	--	--	21.0	249.9	54.3	0.3	98	21.2	213.5*	52.5	1.2	99
G2 GENETICS 5H-700 RR/HX	100	C250	1,2,4	17.9	202.1	56.9	4.1	97	16.9	178.0*	57.0	2.7	92	18.2	239.7	56.6	0.0	100	18.5	188.6	57.0	9.5	100
G2 GENETICS 5H-702 RR/HX	100	C250	1,2,4	17.5	215.7	57.0	6.5	97	16.7	184.8*	57.2	0.6	92	18.1	242.5	56.8	0.0	100	17.6	219.8*	57.0	19.0	100
G2 GENETICS 5H-703 RR/HX	101	C250	1,2,4	18.4	216.1	56.0	3.2	95	17.5	175.6*	55.9	2.0	88	18.5	263.3*	57.0	0.0	99	19.1	209.3*	55.2	7.5	98
G2 GENETICS 5H-902 RR/HX	101	C250	1,2,4	17.7	222.2*	56.6	12.8	97	16.8	176.9*	56.7	0.0	91	18.4	260.6*	56.8	1.2	100	18.0	229.0*	56.4	37.1	100
G2 GENETICS 5H-905 RR/HX	105	C250	1,2,4	18.8	224.8*	54.7	6.3	96	17.8	194.6*	53.8	0.0	90	19.6	273.3**	53.4	0.3	99	19.0	206.4	56.9	18.7	100
G2 GENETICS 5H-994 RR/HX	99	C250	1,2,4	17.1	203.3	57.0	18.7	97	16.0	170.8	56.8	1.5	93	17.5	246.1	56.5	0.3	100	17.9	193.1	57.6	54.3	98
G2 GENETICS 5X-905 RR/HX	105	C250	1,2,3,4	19.3	217.4*	54.1	9.0	97	18.1	183.0*	54.9	0.6	92	20.3	253.3	54.0	0.0	99	19.6	215.9*	53.4	26.5	99
GARST 86149-3000GT Brand	103	C250	1,2,3,4	17.6	199.5	55.2	31.0	97	16.8	167.8	56.3	32.2	92	18.4	250.4	55.3	2.9	100	17.6	180.2	54.0	57.8	100
GOLDEN HARVEST H-7151 3000GT Brand	98	C250	1,2,3,4	17.3	196.5	54.7	4.8	94	16.7	162.0	53.9	1.6	87	17.8	228.8	55.7	0.6	99	17.5	198.8	54.6	12.1	95
GREAT LAKES 1840V13PRO	98	P250	1,2,3	16.1	205.6	56.3	24.4	98	15.5	189.7*	56.4	3.8	96	16.2	238.2	56.6	0.0	100	16.5	189.0	55.8	69.5	99
GREAT LAKES 5090G3VT3	100	P250	1,2,3	18.0	209.6	55.2	10.1	99	17.1	182.3*	56.1	1.4	96	18.4	245.4	55.4	0.0	100	18.5	201.2	54.1	29.0	100
HYLAND SEEDS HLB77R	108	P250	1,2	19.7	200.8	52.4	8.6	98	18.3	176.0*	53.7	7.0	95	20.8	230.8	52.4	4.6	100	19.9	195.7	51.1	14.1	100
HYLAND SEEDS HLCVR08	98	P250	1,2,3	17.1	205.9	57.9	11.3	99	15.9	176.1*	57.5	1.1	97	18.3	236.4	58.8	0.6	100	17.1	205.1	57.3	32.2	100
HYLAND SEEDS HLR27	107	P250	1,2,3,4	19.1	184.8	52.6	18.4	99	18.2	142.3	53.1	9.2	97	20.5	230.5	52.5	5.7	99	18.6	181.5	52.3	40.3	100
LEGACY SEEDS L-4029 VT3	100	P250	1,2,3	17.5	211.8	56.6	3.7	96	16.5	175.9*	57.0	1.9	93	18.3	245.2	56.7	0.6	98	17.7	214.3*	56.2	8.7	98
NK Brand N39W 3000GT Brand	99	C250	1,2,3,4	17.8	210.6	54.3	3.4	94	17.2	177.2*	54.8	1.0	85	18.0	234.5	55.0	0.3	100	18.2	220.2*	53.1	8.9	97
NK Brand N49J 3000GT Brand	103	C250	1,2,3,4	17.6	203.0	55.7	24.0	96	16.9	156.3	56.0	23.8	90	18.0	255.2	56.0	3.2	100	17.9	197.5	55.2	44.9	98
NK Brand N53W 3000GT Brand	105	C250	1,2,3,4	18.3	221.8*	56.3	3.3	96	17.7	190.9*	57.5	3.2	91	18.5	266.0*	57.4	1.2	99	18.8	208.6*	54.0	5.5	99
NuTech 2A-804	104	C250	5	18.1	230.4**	55.3	2.1	94	17.3	187.8*	55.8	2.6	87	18.4	269.7*	55.4	0.0	97	18.6	233.6**	54.7	3.8	99
NuTech 3A-406 GT	106	C250	1	18.8	213.0	53.3	6.3	99	18.3	178.0*	53.8	6.3	97	19.2	251.1	53.7	1.4	100	19.0	209.9*	52.4	11.2	100
NuTech 3T-401 VT3	101	C250	1,2,3	17.5	207.8	56.5	13.9	99	16.4	166.8	57.0	4.0	98	18.5	240.4	56.6	0.3	100	17.5	216.1*	56.0	37.4	100
NuTech 5N-102 GT/CBLURW	101	C250	1,2,3,4	17.3	187.5	55.8	25.6	96	16.8	151.0	56.1	2.0	89	17.4	236.5	56.3	0.0	100	17.7	175.1	54.9	74.8	100
NuTech 5N-803 GT/CBLURW	103	C250	1,2,3,4	17.9	203.1	55.8	24.1	96	16.5	162.5	56.2	30.1	91	18.7	244.4	57.2	3.5	99	18.5	202.3	54.0	38.6	99
NuTech 5N-804 GT/CBLURW	104	C250	1,2,3,4	18.3	217.5*	55.3	3.5	98	17.7	192.7*	55.7	2.7	94	18.4	244.4	54.7	0.9	100	18.8	215.3*	55.4	6.9	100
NuTech 5N-401 VT3	101	C250	1,2,3,4	17.2	209.7	57.1	17.6	97	16.4	191.0*	58.6	2.4	91	18.0	240.8	56.0	0.9	100	17.2	197.2	56.8	49.6	99
PIONEER P080/THR	98	P1250	1,2,4	17.5	223.2*	55.4	6.7	99	16.9	201.8**	56.0	2.1	97	18.3	249.3	55.4	1.1	100	17.3	218.6*	54.9	17.0	100
PIONEER P995XR	99	C250	1,2,3,4	17.1	204.2	55.1	4.4	92	16.3	168.7	55.2	0.0	82	17.5	234.3	54.9	1.9	96	17.6	209.5*	55.2	11.3	99

RENK RK563GBLLRW	98	C250	2.3.4	16.5	204.1	53.5	10.4	95	15.6	174.5 *	53.9	4.4	85	17.3	243.3				
RENK RK565GTBLLRW	99	P250	1,2,3.4	17.3	187.8	55.0	27.3	95	16.9	142.6	54.9	6.3	85	17.7	240.5				
STEYER EXP1002 RR	100	C250	1,2,3	17.3	212.1	57.3	15.0	97	15.8	180.7 *	56.4	3.8	90	18.4	245.1				
AVERAGE																			
HIGHEST																			
LOWEST																			
CV (%)																			
LSD (5%)																			
2 Year Averages 2010 - 2009																			
BRAND / HYBRID	RM	TRT	TRAIT	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	
DEKALB DKC48-37 (VT3)	98	P250	1,2,3	22.2	179.5	54.9	4.3	94	20.9	172.1	55.0	1.5	89	21.4	205.7	55.2	0.7	96	
DEKALB DKC50-35 (VT3)	100	P250	1,2,3	24.3	183.5	53.7	2.8	97	22.6	178.9 *	54.0	2.7	95	25.2	210.8	53.8	0.2	98	
DEKALB DKC50-66 (VT3)	100	P250	1,2,3	23.3	189.8 *	55.0	9.9	98	22.0	193.1 *	54.6	1.2	95	24.3	206.6	55.2	0.3	100	
DEKALB DKC52-59 (VT3)	102	P250	1,2,3	25.2	200.8 *	53.1	9.9	97	23.3	194.6 *	53.2	4.6	92	26.3	222.4 *	53.2	1.6	100	
DEKALB DKC54-16 (VT3)	104	P250	1,2,3	26.4	190.8 *	53.1	4.2	98	24.8	177.5 *	53.8	1.1	96	27.4	217.7	52.8	0.1	98	
DYNAGRO D445S49	104	C250	1,2,3,4	26.6	195.1 *	52.9	3.3	95	23.7	186.9 *	53.0	2.1	95	28.2	218.6	53.1	1.5	98	
DYNAGRO V3883V13	98	C250	1,2,3	24.5	185.9	53.3	3.3	95	22.6	179.4 *	53.4	1.9	93	25.4	206.2	53.8	1.3	95	
G2 GENETICS 5H-700B RR/HX	100	C250	1,2,4	24.7	197.9 *	54.0	4.6	97	22.4	188.0 *	54.4	3.9	93	25.9	219.1	53.8	0.0	99	
G2 GENETICS 5H-702 RR/HX	101	C250	1,2,4	24.9	202.3 **	53.6	2.4	95	23.5	190.4 *	53.7	2.4	91	25.8	232.1 **	54.0	0.0	98	
G2 GENETICS 5H-905 RR/HX	105	C250	1,2,4	27.6	200.1 *	52.6	4.0	95	25.6	195.9 **	52.3	1.8	92	28.6	227.9 *	51.9	0.3	94	
G2 GENETICS 5H-998A RR/HX	99	C250	1,2,4	24.0	194.7 *	54.1	10.2	97	22.9	180.3 *	54.1	2.5	94	24.5	218.2 *	53.8	0.3	97	
HYLAND SEEDS HLCVR68	98	P250	1,2,3	23.9	191.1 *	54.6	6.3	98	21.9	178.8 *	54.6	1.1	96	24.6	212.7	55.0	1.0	99	
AVERAGE				24.8	192.6	53.7	5.9	97	23.0	184.7	53.8	2.2	93	25.6	216.8	53.8	0.6	98	
HIGHEST				27.6	202.3	55.0	10.2	98	25.6	195.9	55.0	4.6	96	28.6	232.1	55.2	1.6	100	
LOWEST				22.2	179.5	52.6	2.4	94	20.9	172.1	52.3	1.1	89	21.4	205.7	51.9	0.0	94	
CV (%)				5.5	8.3	2.5	120.6	5.0	10.5	2.0	115.7	7.0	4.6	5.2	1.9	204.0	5.0	6.4	4.0
LSD (5%)				0.9	13.4	1.1	9.2	4.0	2.0	18.4	1.1	4.5	7.0	1.0	11.8	1.0	1.6	4.0	

TABLE 3E - Continued from page 19. **HURON, MASON & MONTCALM COUNTY GRAIN TRIALS - EARLY (97 Day and Earlier) ZONE 3**

2 Year Averages 2010 - 2009																			
BRAND / HYBRID	RM	TRT	TRAIT	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	
DAIRYLAND STEALTH-6992	92	C250	1,2	20.3	193.5 *	54.1	5.8	99	19.3	184.4 *	54.5	1.8	97	21.1	212.5	53.8	0.3	100	
DAIRYLAND STEALTH-9196	96	C250	1,2,3	21.9	181.4	54.2	5.4	97	20.7	172.0	53.9	3.5	92	23.1	207.2	54.9	1.1	100	
DEKALB DKC42-72 (VT3)	92	P250	1,2,3	20.6	185.5	54.1	1.9	98	19.9	187.2 *	54.3	1.9	96	21.3	208.7	54.1	0.3	99	
DYNAGRO 54V78	96	C250	1,2,3	20.3	191.2 *	53.7	6.8	99	19.6	183.6 *	53.8	8.3	97	21.0	215.3	53.9	0.9	100	
DYNAGRO D32RR29	92	C250	1	20.2	189.1 *	54.9	5.7	98	19.5	181.7 *	54.1	2.3	95	21.1	215.7	55.8	0.3	100	
G2 GENETICS 5H-597 RR/HX	97	C250	1,2,4	22.5	199.9 **	53.6	4.7	95	22.1	193.6 *	54.2	1.4	91	24.3	226.5 **	53.2	0.4	99	
G2 GENETICS 5H-797 RR/HX	97	C250	1,2,4	22.6	191.7 *	53.2	1.4	95	21.7	178.3	53.3	0.9	91	25.1	210.3	53.0	0.2	98	
G2 GENETICS 5H-999 RR/HX	97	C250	1,2,4	22.7	195.8 *	54.0	7.4	96	22.2	196.5 **	54.0	4.6	91	24.0	223.4 *	54.5	0.1	99	
GREAT LAKES 4481G3VT3	94	P250	1,2,3	20.9	186.0	54.6	8.7	95	21.1	182.6 *	54.7	2.2	88	21.9	218.0 *	54.6	1.3	99	
HYLAND SEEDS HLCVR64	95	P250	1,2,3	21.6	184.0	53.1	2.4	99	20.7	169.9	53.0	2.5	96	24.0	210.0	52.9	0.3	100	
LEGACY SEEDS L-3538V/T3	95	P250	1,2,3	22.5	185.0	53.4	7.7	96	22.0	169.9	53.4	2.8	93	22.8	214.3	53.9	1.3	98	
G2 GENETICS 5H-197 RR/HX	97	C250	1,2,3	23.2	184.1	53.6	4.1	98	22.8	176.5	52.9	3.6	95	25.4	214.6	54.2	1.1	98	
G2 GENETICS 5H-393 VT3	93	C250	1,2,3	21.0	187.0 *	54.2	5.3	96	19.3	172.4	54.5	3.3	91	22.9	209.2	54.7	0.5	98	
PIONEER 38088	92	P1250	1,2,4,11,12	21.2	189.5 *	54.0	4.5	96	22.4	181.6 *	53.9	3.6	91	23.3	203.4	55.3	0.0	96	
RENIK RK501VT3	95	P250	1,2,3	20.7	185.0	53.7	6.2	96	19.5	172.3	53.5	3.9	91	21.1	207.4	54.4	0.6	100	
AVERAGE				21.5	188.6	54.0	5.0	97	20.8	179.9	53.9	3.0	93	22.8	213.3	54.2	0.6	99	
HIGHEST				23.2	199.9	55.0	8.7	99	22.8	196.5	54.7	8.3	97	25.4	226.5	55.8	1.3	100	
LOWEST				20.2	181.4	53.1	1.2	95	19.3	169.9	52.9	0.9	88	21.0	203.4	52.9	0.0	96	
CV (%)				5.5	8.5	2.8	135.7	4.0	7.7	9.3	3.0	108.8	6.0	6.2	4.6	1.8	154.0	3.0	
LSD (5%)				0.8	13.4	1.3	9.3	3.0	1.3	16.1	1.6	3.8	6.0	1.2	10.4	1.0	1.5	3.0	

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

TABLE 4.

GRAND TRAVERSE, MENOMINEE (LATE) & OGEMAW COUNTY GRAIN TRIALS (97 Day and Later)

ZONE 4

BRAND / HYBRID	RM	TRT	TRAIT	TRIAL AVERAGE				GRAND TRAVERSE				MENOMINEE - LATE				OGEMAW							
				%H2O	BU/A	Twt	SSL %Sd	%H2O	BU/A	Twt	SSL %Sd	%H2O	BU/A	Twt	SSL %Sd	%H2O	BU/A	Twt	SSL %Sd				
BAYSIDE 3090GT CBL	90	1,2		20.3	204.6	50.4	5.8	99	23.0	220.6	50.3	0.3	99	18.9	201.6*	50.1	13.7	99	19.1	191.6	50.9	3.4	100
BAYSIDE 4090	90			20.5	182.8	50.5	13.9	98	22.0	213.5	50.8	0.6	100	19.1	160.3	50.4	39.9	98	20.3	174.7	50.4	1.2	97
BAYSIDE 7080	80			17.1	149.5	51.2	18.7	98	19.7	176.3	52.1	3.8	99	15.3	132.8	50.4	49.7	98	16.2	139.4	51.2	2.7	96
BAYSIDE 8081 3000GT	81	1,2,3		18.7	174.2	54.0	1.9	96	20.7	193.7	53.7	0.0	97	16.5	174.8	54.0	4.1	95	19.0	154.1	54.4	1.5	97
BAYSIDE 9081GT	81			19.3	164.9	50.8	17.1	99	21.8	181.3	50.7	1.8	98	16.7	155.7	51.5	47.5	99	19.3	157.7	50.2	2.0	99
CROPLAN 2871VT3	88			20.7	186.4	53.2	11.6	100	22.0	212.2	53.2	0.0	100	18.8	174.4	54.6	34.3	99	21.3	172.6	51.8	0.6	100
DAIRYLAND STEALTH-7985	85	C250	1,2	19.2	173.0	51.2	21.4	100	20.5	201.5	52.3	4.9	100	18.5	153.1	49.7	53.1	100	18.6	164.5	51.7	6.3	99
DAIRYLAND STEALTH-9286	86	C250	1,2,3	20.3	193.5	51.6	7.2	99	21.3	211.3	53.3	0.3	100	18.8	180.0	50.9	20.7	98	20.7	189.3	50.7	0.6	100
DAIRYLAND STEALTH-9789	89	C250	1,2,3	22.1	201.3	51.5	5.4	98	24.7	222.5	50.9	0.0	99	20.0	175.9	51.4	15.1	96	21.6	205.4*	52.2	1.2	99
DEKALB DKC36-34 (VT3)	86	P250	1,2,3	19.8	190.4	53.3	8.1	98	21.0	204.6	53.7	0.3	100	18.5	183.9	53.4	23.9	94	19.9	182.8	52.7	0.0	100
DEKALB DKC37-39 (VT3)	87	P250	1,2,3	19.9	197.3	53.2	4.3	100	21.2	213.5	52.9	0.0	100	18.6	196.5*	53.7	12.9	99	20.0	181.9	52.9	0.0	100
DEKALB DKC38-89 (VT3)	88	P250	1,2,3	21.7	199.6	50.8	1.2	99	23.6	213.1	50.5	0.0	100	20.2	191.1	51.0	2.6	96	21.3	194.7	50.9	0.9	100
DEKALB DKC42-72 (VT3)	92	P250	1,2,3	21.3	216.3*	51.2	2.7	98	24.4	232.3*	50.8	0.3	98	18.5	210.6*	51.7	7.8	96	21.0	205.9*	51.1	0.0	99
DEKALB DKC43-27 (VT3)	93	P250	1,2,3	21.7	192.7	50.9	6.7	98	24.3	220.5	50.1	0.0	100	20.0	186.9	51.4	18.1	96	20.7	170.6	51.3	2.0	97
DEKALB DKC45-52 (GENV3P)	95			22.3	219.0**	50.7	2.3	100	24.8	230.7*	50.8	0.0	100	19.9	208.1*	50.8	6.7	99	22.2	218.1**	50.6	0.3	100
DYNAGRO 52V01	87	C250	1,2,3	19.5	194.2	51.8	15.3	99	21.5	215.0	52.2	0.6	100	18.0	187.1	51.8	45.2	99	19.0	180.6	51.5	0.0	99
DYNAGRO D35RR40	94	C250	1	21.2	211.0*	50.2	3.5	91	23.4	237.7*	50.2	0.0	90	18.6	198.1*	50.4	10.4	90	21.6	197.1	50.0	0.0	92
DYNAGRO D32RR29	92	C250	1	20.3	195.3	51.1	9.7	99	22.3	221.0	50.4	0.9	99	18.3	186.4	51.6	26.3	99	20.3	178.6	51.3	1.8	98
G2 GENETICS 5H-885 RRI/HX	85	C250	1,2,4	18.3	184.5	52.0	15.7	99	19.3	211.6	52.6	0.3	99	17.6	176.5	52.0	41.0	97	17.9	165.5	51.4	5.7	100
G2 GENETICS 5H-891 RRI/HX	91	C250	1,2,4	19.7	204.4	51.2	7.5	98	21.4	220.0	51.2	0.0	100	17.6	214.3*	51.8	21.8	96	20.0	178.8	50.6	0.6	99
GARST 89K65-3000GT Brand	89	C250	1,2,3,4	19.4	183.2	52.9	23.4	99	21.9	202.7	52.3	2.3	100	18.3	179.7	52.9	62.4	99	17.9	167.1	53.4	5.5	98
HYLAND SEEDS HLB454	92	P250	1,2,3,4	21.6	202.4	50.1	8.6	98	24.7	224.7*	49.6	0.0	99	19.3	180.7	49.7	21.6	97	20.9	201.7*	51.1	4.1	99
HYLAND SEEDS HLB32R	90	P250	2,4	18.4	182.5	51.8	23.6	98	20.7	224.0	52.9	2.0	99	16.8	166.0	51.0	50.7	95	17.8	157.5	51.5	18.1	99
HYLAND SEEDS HLCVR54	92	P250	1,2,3	22.0	198.9	49.7	6.7	96	24.4	229.2*	49.7	0.6	100	19.3	176.9	49.3	89	99	22.2	190.5	50.1	0.0	98
MYCOGEN 2337	92	C250	1,2,3	23.0	207.7	50.8	4.6	99	26.1	226.5*	50.0	0.0	100	20.4	189.6	50.9	13.2	99	22.4	207.1*	51.5	0.6	99
MYCOGEN 27224	86	C250	1,2,3,4	19.9	200.0	51.0	5.8	100	20.9	209.4	51.3	0.0	100	18.9	202.8*	50.9	17.2	100	19.8	187.7	50.8	0.3	100
NK Brand N29T GT/CB/LL Brand	92	C250	1,2,3,4	20.5	205.8	50.1	18.8	97	23.7	242.7**	50.3	0.0	100	18.6	179.9	49.9	54.2	93	19.1	194.8	50.2	2.3	99
NuTech 1B-522 CB/LL	92	C250	2,4	21.0	186.5	51.6	2.8	98	23.6	206.1	51.4	0.0	100	19.7	179.0	50.7	7.6	96	19.6	174.3	52.7	0.9	99
NuTech 3A-889 RR	89	P250	1,2	20.3	192.3	51.3	12.4	98	23.0	220.0	50.2	1.4	100	18.4	177.1	52.2	35.1	95	19.5	179.8	51.4	0.6	99
NuTech 3C-889 RR/N/GCB	89	P250	1,2	20.6	193.8	52.1	12.6	99	22.6	223.6	52.5	0.6	100	18.8	171.8	52.5	35.3	96	20.5	186.0	51.4	2.0	100
NuTech 3T-294 VT3	94	P250	1,2,3	22.6	208.7*	51.3	4.8	99	24.3	224.2	51.0	0.0	100	20.9	190.7	51.3	13.1	98	22.5	211.2*	51.6	1.4	100
NuTech 3T-484 VT3	84	C250	1,2,3	19.6	189.4	51.6	6.1	99	21.2	211.0	52.0	1.7	100	18.3	188.6	51.3	14.7	100	19.3	168.7	51.4	1.8	97
NuTech 5N-533 GT/CB/LL/RW	93	C250	1,2,3,4	22.2	191.0	50.2	8.2	99	25.8	211.8	50.7	0.6	100	19.1	173.9	50.5	23.1	98	21.7	187.3	49.5	0.9	98
PIONEER 3R888	92	P1250	1,2,4,11,12	20.6	199.2	53.3	3.2	99	22.7	220.1	52.9	0.6	100	18.8	191.3	53.9	8.9	97	20.3	186.3	53.0	0.0	99
PIONEER P9380XR	93	C250	1,2,3,4	21.1	200.8	49.7	6.8	98	22.9	217.0	48.9	0.3	100	18.6	195.6*	51.8	17.4	97	21.7	189.9	48.4	2.7	98
RENK RK212	82	C250	2,4	18.9	166.3	52.5	6.2	99	20.0	194.8	53.4	2.3	100	17.1	163.9	52.2	12.8	97	19.7	140.1	52.0	3.5	99
RENK RK29GTCBLLRW	85	1,2,3,4	19.7	177.3	51.9	7.4	97	21.9	199.6	51.7	2.0	99	18.3	175.4	52.6	16.6	96	18.8	156.9	51.3	3.6	96	
RENK RK302GTCBL	89	C250	1,2,4	20.3	198.2	50.7	20.7	98	23.4	234.0*	50.6	0.0	100	17.9	182.6	51.1	61.8	97	19.6	178.0	50.4	0.3	98
RENK RK33ARR	89	P250	1	19.7	196.7	51.2	4.8	99	21.7	204.4	51.2	1.1	100	18.0	198.4*	50.6	12.8	96	19.3	187.2	51.8	0.6	100
RENK RK570VT3	95	P250	1,2,3	22.3	195.6	49.4	5.3	99	25.4	211.2	49.3	0.9	98	19.6	187.9	48.8	15.1	99	22.0	187.6	50.1	0.0	100
AVERAGE				20.4	192.8	51.4	9.3	98	22.6	214.7	51.4	0.8	99	18.6	182.5	51.4	25.2	97	20.1	181.1	51.3	2.0	99
HIGHEST				23.0	219.0	54.0	23.6	100	26.1	242.7	53.7	4.9	100	20.9	214.3	54.6	62.4	100	22.5	218.1	54.4	18.1	100
LOWEST				17.1	149.5	49.4	1.2	91	19.3	176.3	48.9	0.0	90	15.3	132.8	48.8	2.6	89	16.2	139.4	48.4	0.0	92
CV (%)				4.8	6.8	2.2	131.3	3.0	4.3	6.0	20	1.7	2.0	0.8	20.2	1.7	29.2	6.0	1.8	17.1	1.6	4.5	3.0
LSD (5%)				0.8	10.6	0.9	9.8	2.0	1.4	18.1	1.5	2.0	2.0	0.8	20.2	1.7	29.2	6.0	1.8	17.1	1.6	4.5	3.0

BRAND / HYBRID	2 Year Averages 2010 -2009			TRIAL AVERAGE												GRAND TRAVERSE						MEMOMINEE LATE						OGEMAW					
	RM	TRT	TRAIT	%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd	%H2O	Bu/A	Twt	%SL	%Sd
DAIRYLAND STEALTH-9789	89	C250	1,2,3	27.6	180.6 *	51.3	4.8	99	32.2	189.9 *	50.7	4.1	99	25.5	162.7	51.3	7.7	98	25.0	189.2 *	51.9	2.7	99										
DEKALB DKC36-34 (VT3)	86	P250	1,2,3	23.9	171.2	52.7	5.1	99	28.5	174.9	52.1	1.7	99	20.5	170.6 *	53.4	12.6	97	22.6	168.2	52.5	1.1	100										
DEKALB DKC38-89 (VT3)	88	P250	1,2,3	26.4	179.8 *	51.1	1.6	97	31.6	181.9 *	50.5	0.7	97	22.6	160.1 *	51.7	2.6	96	25.0	188.3 *	51.2	1.6	97										
DEKALB DKC42-72 (VT3)	92	P250	1,2,3	26.8	189.6 **	51.3	3.2	99	32.7	193.5 **	50.7	3.1	99	22.4	179.2 **	51.9	4.4	98	25.4	196.0 **	51.2	2.0	100										
DYNAGRO 52V01	87	C250	1,2,3	24.7	175.6	51.7	9.3	97	29.9	179.3	51.3	3.2	96	21.0	171.6 *	52.0	23.4	98	23.2	175.8	51.7	1.2	97										
DYNAGRO D32RR29	92	C250	1	26.2	176.6	51.1	5.8	98	30.7	183.1 *	50.4	1.9	98	23.0	166.8	51.5	13.5	97	24.9	179.8	51.3	1.9	98										
HYLAND SEEDS HLCVR54	92	P250	1,2,3	27.2	181.8 *	50.4	4.1	98	32.6	192.5 *	50.1	1.4	100	23.4	168.0 *	50.5	9.7	95	25.5	184.8 *	50.7	1.3	99										
MYCOGEN 2,337	92	C250	1,2,3	27.1	186.2 *	51.2	4.5	99	33.2	190.3 *	50.2	2.8	100	23.4	173.9 *	51.5	7.4	99	24.6	194.3 *	51.8	3.4	99										
NuTech 3C-889 RR/YGCB	89	P250	1,2	26.0	178.4	51.7	7.9	99	30.7	186.8 *	51.5	2.6	99	22.9	161.7	52.2	18.9	98	24.5	186.6 *	51.5	2.1	100										
PIONEER 38188	92	P1250	1,2,4,11,12	25.9	180.5 *	52.4	4.6	100	31.4	187.1 *	51.7	4.3	100	22.7	172.4 *	53.1	4.6	99	23.7	182.1	52.5	5.0	100										
RENK RK212	82	C250	24	23.0	167.4	52.6	3.9	99	29.6	178.0	51.9	1.6	100	17.6	157.6	53.5	7.0	98	21.9	166.5	52.4	3.2	99										
AVERAGE	25.9	178.9	51.6	5.0	99	31.2	185.2	51.0	2.5	99	22.3	168.5	52.1	10.2	98	24.2	182.9	51.7	2.3	99													
HIGHEST	27.6	189.6	52.7	9.3	100	33.2	193.5	52.1	4.3	100	25.5	179.2	53.5	23.4	99	25.5	196.0	52.5	5.0	100													
LOWEST	23.0	167.4	50.4	1.6	97	28.5	174.9	50.1	0.7	96	17.6	157.6	50.5	2.6	95	21.9	166.5	50.7	1.1	97													
CV (%)	6.0	6.8	1.9	133.5	3.0	5.7	6.0	1.5	132.6	2.0	9.1	7.1	2.0	74.0	3.0	7.4	6.7	1.7	116.8	2.0													
LSD (5%)	1.1	10.2	0.8	8.5	2.0	1.5	11.9	0.7	2.0	2.0	1.8	12.2	1.0	14.6	3.0	1.6	12.0	0.8	2.7	2.0													

** Highest Yielding Hybrid
 * Not Significantly Different from Highest Yielding Hybrid

CODES NUMBERS FOR HYBRID TRAITS

Code Num.	Traits & Resistant Events
1	Glyphosate
2	European Corn Borer
3	Corn Rootworm
4	Liberty Link
5	Clearfield, IMI, IT, IR
6	N/A
7	Brown Mid Rib
8	Leafy
9	High Oil
10	Waxy
11	HTF High Total Fermentable
12	HAE High Available Energy
13	HES High Extractable Starch
14	Other

TREATMENT CODES FOR SEED APPLIED INSECTICIDES

TRT	Seed Treatment	Chemical Rate
C125	No Seed Insecticide Applied	
C250	Cruiser® 125	0.125 mg Thiamethoxan per kernel
C1250	Cruiser® 250	0.250 mg Thiamethoxan per kernel
P250	Cruiser® 1250	1.25 mg Thiamethoxan per kernel
P1250	Poncho® 250	0.25 mg Clothianidin per kernel
	Cruiser® is a registered trademark of Syngenta Group Company	
	Poncho® is a registered trademark of Gustafson LLC	

TABLE 5.

DELTA & MENOMINEE (EARLY) COUNTY GRAIN TRIALS (92 Day and Earlier)

ZONE 5

2010			TRIAL AVERAGE						DELTA						MENOMINEE - EARLY					
BRAND / HYBRID	RM	TRT	TRAIT	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd		
BAYSIDE 7080	80			17.0	140.8	50.6	23.4	.99	18.0	142.8	49.8	23.1	.99	15.9	138.7	51.4	23.6	.98		
BAYSIDE 9081GT	81			18.8	159.7	50.8	29.9	.98	20.7	163.6	50.1	24.0	.97	16.9	155.7	51.4	35.7	.98		
DAIRYLAND STEALTH-6382	82	C250		17.7	168.5	51.9	22.7	.98	18.7	170.9	51.9	22.6	.96	16.6	166.1	51.9	22.7	.99		
DAIRYLAND STEALTH-7985	85	C250	1.2	19.3	153.8	50.8	79.4	.99	21.1	156.6	50.3	85.2	.00	17.4	150.9	51.3	73.5	.97		
DEKALB DKC30-20 (VT3)	80	P250	1.2,3	17.3	169.0	55.2	3.4	.97	18.0	167.5	55.0	3.4	.98	16.5	170.4	55.3	3.4	.96		
DEKALB DKC35-43 (VT3)	85	P250	1.2,3	18.6	180.1	55.1	32.7	.99	19.5	176.4	54.5	17.3	.00	17.6	183.8*	55.6	48.1	.98		
DEKALB DKC36-34 (VT3)	86	P250	1.2,3	19.6	190.9*	52.3	3.1	.98	20.5	184.7*	51.9	1.5	.97	18.7	197.1*	52.6	4.6	.98		
DEKALB DKC37-39 (VT3)	87	P250	1.2,3	20.2	194.4*	51.3	8.7	.98	21.1	194.8*	50.3	9.7	.00	19.3	194.0*	52.3	7.6	.96		
DEKALB DKC38-89 (VT3)	88	P250	1.2,3	22.4	195.9*	50.2	0.9	.99	24.6	192.6*	48.6	0.9	.99	20.2	199.2*	51.7	0.8	.99		
DEKALB DKC42-72 (VT3)	92	P250	1.2,3	20.0	185.2	50.3	10.3	.99	21.4	185.8*	49.0	13.8	.98	18.5	184.5*	51.5	6.7	.100		
G2 GENETICS 5H-885 RR/HX	85	C250	1.2,4	18.5	184.8	51.2	34.6	.98	19.8	193.7*	50.1	9.2	.99	17.2	175.8	52.3	60.0	.96		
HYLAND SEEDS HLB32R	90	P250	2,4	18.8	165.7	51.8	76.6	.98	20.2	170.4	51.6	91.5	.97	17.4	160.9	51.9	61.7	.98		
HYLAND SEEDS HLCVR48	90	P250	1.2,3	19.8	198.1*	54.8	5.4	.97	20.5	203.6**	54.8	2.7	.98	19.1	192.6*	54.8	8.1	.96		
HYLAND SEEDS HLCVR68	98	P250	1.2,3	23.9	183.0	49.7	13.4	.99	25.8	183.2*	47.7	9.7	.99	22.0	182.8*	51.7	17.0	.98		
NuTech 0A-183	83	C250		18.5	160.4	51.9	48.8	.98	20.4	156.6	51.9	72.4	.00	16.5	164.2	51.9	25.1	.96		
NuTech 3C-889 RRYGCB	89	P250	1,2	19.9	181.7	51.6	39.1	.98	21.5	194.1*	51.1	18.0	.98	18.3	169.3	52.0	60.2	.98		
NuTech 3T-482 VT3	82	P250	1,2,3	18.9	174.7	55.8	8.1	.99	19.6	180.0	56.8	4.3	.99	18.1	169.3	54.7	11.8	.98		
NuTech 3T-484 VT3	84	C250	1,2,3	20.7	192.7*	50.7	11.5	.98	22.7	198.1*	50.1	9.0	.98	18.7	187.3*	51.2	13.9	.97		
PIONEER 39D97	79	P1250	1,2	17.7	165.6	55.2	14.9	.98	19.1	161.6	55.5	12.4	.99	16.2	169.6	54.8	17.4	.97		
PIONEER P8906HR	89	P1250	1,2,4	19.3	200.2**	52.6	12.1	.94	20.1	198.0*	51.9	14.4	.94	18.4	202.4**	53.2	9.7	.93		
AVERAGE				19.3	177.3	52.2	24.0	.98	20.7	178.7	51.6	22.2	.98	18.0	175.7	52.7	25.6	.97		
HIGHEST				23.9	200.2	55.8	79.4	.99	25.8	203.6	56.8	91.5	.00	22.0	202.4	55.6	73.5	.100		
LOWEST				17.0	140.8	49.7	0.9	.94	18.0	142.8	47.7	0.9	.94	15.9	138.7	51.2	0.8	.93		
CV (%)				3.8	8.1	2.3	62.2	4.0	4.1	8.2	2.3	39.7	3.0	3.4	8.0	2.4	74.6	4.2		
LSD (5%)				0.7	14.2	1.2	14.7	4.0	1.2	20.7	1.7	12.5	5.0	0.9	19.8	1.8	27.0	5.7		
2 Year Averages 2010-2009			TRIAL AVERAGE						DELTA						MENOMINEE - EARLY					
BRAND / HYBRID	RM	TRT	TRAIT	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd		
DEKALB DKC36-34 (VT3)	86	P250	1,2,3	22.4	171.3**	52.3	2.3	.99	23.7	160.4*	51.6	1.1	.99	21.0	182.1**	52.9	3.5	.99		
DEKALB DKC38-89 (VT3)	88	P250	1,2,3	27.1	166.8*	50.6	1.0	.98	30.9	156.9*	49.4	0.6	.98	23.3	176.7*	51.8	1.3	.97		
DEKALB DKC42-72 (VT3)	92	P250	1,2,3	27.0	166.0*	50.6	5.9	.98	29.6	161.1*	49.7	8.0	.99	24.3	170.9*	51.4	3.8	.97		
HYLAND SEEDS HLB32R	90	P250	2,4	24.0	152.1	51.9	38.9	.98	28.3	146.5	51.0	45.8	.98	19.6	157.7	52.8	32.0	.97		
Nu Tech 3C-889 RRYGCB	89	P250	1,2	24.9	166.1*	51.4	20.2	.98	28.3	163.8**	50.8	9.0	.99	21.4	168.3	52.0	31.4	.97		
AVERAGE				25.1	164.5	51.4	13.7	.98	28.2	157.7	50.5	12.9	.98	21.9	171.1	52.2	14.4	.97		
HIGHEST				27.1	171.3	52.3	38.9	.99	30.9	163.8	51.6	45.8	.99	24.3	182.1	52.9	32.0	.99		
LOWEST				22.4	152.1	50.6	1.0	.98	23.7	146.5	49.4	0.6	.98	19.6	157.7	51.4	1.3	.97		
CV (%)				5.7	7.5	2.0	62.8	4.0	6.4	7.0	1.8	35.1	3.0	6.6	7.1	2.0	65.1	5.0		
LSD (5%)				1.0	11.0	0.9	10.4	3.0	1.5	11.7	0.9	6.2	3.0	1.3	12.2	1.0	13.4	4.0		

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

TABLE B. AGRONOMIC TABLE FOR GRAIN TRIAL LOCATIONS

COUNTY		PLANTING DATES	HARVEST DATES	PREVIOUS CROP	100 % STAND	AVERAGE STAND	FERTILIZER N - P - K
Zone 1	WASHTENAW	May 28	Oct. 29	Soybeans	34,452	33,935	153-8-2
	BRANCH	April 29	Oct. 1	Corn	34,452	33,246	153-8-2
	CASS	April 28	Oct. 19	Corn	34,056	33,205	185-33-27 S, Zn
Zone 2	ALLEGAN	May 4	Nov. 3	Soybeans	34,452	33,418	153-8-2
	INGHAM	May 10	Oct. 22	Soybean	34,452	33,418	190-8-112
	SAGINAW & GR	May 5	Oct. 12	Soybean	34,452	33,591	153-8-2
Zone 3	HURON & GR	May 6	Oct. 21	Corn	35,244	33,883	168-8-2
	MONTCALM	May 21	Nov. 4	Potatoes	34,452	34,280	153-16-147 S, Zn, Br
	MONTCALM GR	May 10	Oct. 11	Dry Beans	34,452	32,213	123-8-2
	MASON	May 16	Oct. 20	Carrots Rye cover	34,452	34,280	153-8-2
Zone 4	OGEMAW	May 24	Oct. 15	Corn Rye Forage	34,452	34,107	153-8-2 +manure
	GRAND TRAVERSE	May 16	Oct. 13	Wheat/Clover	34,452	34,107	118-8-47 +5 ton manure
	MENOMINEE	May 18	Nov. 1	Alfalfa/Grass	35,244	34,187	97-8-2 +10k gal manure
Z5	DELTA	May 18	Nov. 1	Corn	34,452	33,763	126-8-2

COUNTY		SOIL TYPE	SOIL TEST	FARM COOPERATOR	LOCATION
Zone 1	WASHTENAW	Morley loam	pH 6.25 P 61, K 243	Mathew Talladay	Milan
	BRANCH	Fox Sandy Loam	pH 5.9 P 44, K 110	Kyle Huff	Coldwater
	CASS	Kalamazoo Loam	pH 6.7 P 70, K 227	Dave & Mel Cripe	Cassopolis
Zone 2	ALLEGAN	Blount Silt Loam	pH 6.4 P 54, K 117	Ken Blaauw	Hopkins
	INGHAM	Capac Loam	pH 7.5 P 60, K 142	Jorgensen Farms Jerry Jorgensen & Mike Turner	Williamston
	SAGINAW & GR	Shiawassee Gravelly Sandy & Parkhill Loams	pH 6.2 P 90, K 207	Fred Gross Farms Peggy Gross & Dick Birchmeier	New Lothrop
Zone 3	HURON & GR	Kilmanagh Loam	pH 7.5 P 97, K 238	Wil-Le Farms Ron & Ed McCrea	Bad Axe
	MONTCALM	Montcalm & McBride Loamy Sands – Grayling Sand	pH 5.3 P 108, K 131	Sackett Farms Larry Sackett	Stanton
	MONTCALM GR	Montcalm - McBride Sandy Loam	pH 5.8 P 90 K 183	Montcalm Research Farm, MSU	Entrican
	MASON	Fern-Marlette Complex	pH 6.7 P 100, K 163	Robert Oshe	Scottville
Zone 4	OGEMAW	Nester-Manistee Complex Loam	pH 7.5 P 49, K 98.5	Mark Beck	West Branch
	GRAND TRAVERSE	Karin Sandy Loam	pH 6.6 P 76, K 158	Ed Breitmeyer	Buckley
	MENOMINEE	Onaway Sandy Loam	pH 7.2 P 13, K 64.5	Johnson Dairy Farm Dave Johnson	Daggett
Z5	DELTA	Onaway Fine Sandy Loam	pH 5.8 P 41, K 116	Benny Herioux	Bark River

Corn Grain Profitability in the Northern Corn Belt Improves from Selecting Earlier Maturing Hybrids

Xinmei Hao, Kurt Thelen and Juan Gao

Department of Crop and Soil Sciences

Michigan State University

With the recent increases in energy costs, selecting corn hybrids with the appropriate relative maturity (RM) rating is one of the most important management decisions Michigan producers have to make. Late maturing hybrids generally have greater grain yield potential than earlier maturing hybrids in Michigan. However, late hybrids often have higher kernel moisture at harvest, especially in a cool and/or wet growing season. Higher grain moisture causes harvest delays and higher drying costs, which could offset economic gains from the higher yield of late maturing hybrids. Therefore, higher yield from late hybrids may not guarantee a higher economic return.

Performance of commercial corn hybrids was evaluated annually in three zones from south to north across Michigan. Climatic conditions within each zone are similar and each zone consisted of three trial locations (counties) annually. Zone 1 lies across the southeast and southwest corners of the state, and trial sites were located in Branch, Cass and Lenawee Counties. Zone 2 lies in the south-central portion of the lower peninsula and the three trial sites were located in Ingham, Kent and Saginaw counties. Zone 3 lies to the north of Zone 2 and trial sites were located in the counties of Huron, Mason and Montcalm. These zones were designated on the basis of available growing degree days (GDD) established from long-term weather records. For Zone 1, hybrids with RM ratings < 107 d were classified into the early maturing group and those with RM ratings \geq 107 d were classified into the late maturing group. Similarly, the cutoff number was 102 and 97 d for Zone 2 and 3 respectively.

Five top-yielding hybrids of the two groups in each zone and year combination were selected for analysis and the grain yield was adjusted to 15.5% moisture. Relative economic return was evaluated based on combinations of corn price at \$2.5, 3.5 and 4.5 bu⁻¹, which is roughly the range of corn price occurring during the 2000 -2009 study period, and drying costs at \$0.03, 0.04, 0.05 and 0.06 bu⁻¹ point⁻¹. Harvesting cost was set as \$0.17 bu⁻¹, which included handling (\$0.02 bu⁻¹), hauling (\$0.04 bu⁻¹) and transportation (\$0.11 bu⁻¹). The net return was represented simply by the difference of gross return (corn price \times yield) and total drying and harvesting cost (drying cost \times moisture above 15.5% \times yield + harvesting cost \times yield). No other costs besides drying and harvesting costs were included in the analysis.

Results

During the studied ten-year period, the late hybrids had significantly higher grain yield than the early hybrids in the three zones, producing on average 3, 6 and 3 bu acre⁻¹ more for zone 1, 2 and 3 respectively. We found that late RM hybrids had a higher overall mean grain yield in eight of the ten years studied, with the exception of 2004 and 2009, when early RM hybrids had slightly higher grain yield (Fig. 1). Abnormally cool temperatures during the 2009 growing season across the Northern Corn Belt and subsequently substantially lower GDD accumulations had a greater impact on late hybrids, contributing to the similar grain production of early and late RM groups in the three zones. However, only in the years of 2002 and 2006 was the yield difference statistically significant. Late hybrids produced 10.2 and 12.0 bu acre⁻¹ more corn grain than early hybrids in 2002 and 2006 respectively, while for the other eight years the grain yield difference between the two RM groups was smaller than 6.4 bu acre⁻¹.

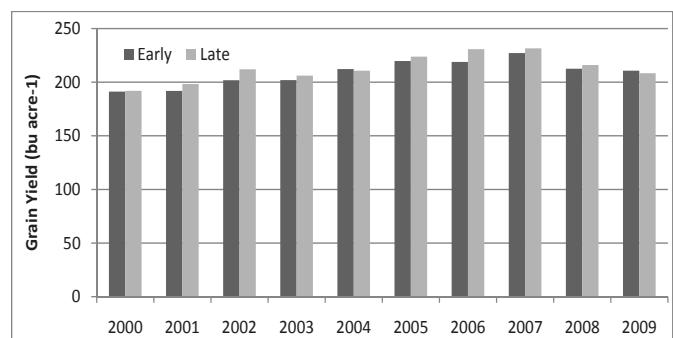


Fig. 1 Average grain yield of the three zones over 2000 – 2009 for the early and late RM hybrid groups.

As expected, grain moisture at harvest was consistently and significantly higher for the late hybrids over the ten-year span (Fig. 2). Also average grain moisture differences between the two RM groups were greater in Zone 2 and 3 than in Zone 1. The difference in grain moisture between early and late hybrids was about 1.4% in Zone 1, compared to 3.0% in Zone 2 and 3 across years. This was due to the more northern latitude of Zones 2 and 3 and the resulting shorter growing season relative to Zone 1. The biggest difference was about 6%, taking place in Zone 3 in 2009.

2010 SILAGE PERFORMANCE TRIALS

Introduction

The silage index (pg.35) contains a list of all hybrids planted in the 2010 grain trials.

County results are reported in the following tables:

Tables 7E/7L Zone 1 - Branch, Lenawee and Wood (OH)

Tables 8E/8L Zone 2 – Allegan, Huron (Zone 3) and Ingham

Table 9 Zone 4 – Menominee (Late), Ogemaw and Osceola

Table 10 Zone 5 - Alger and Menominee (Early)

The map of Michigan (page 33) shows each zone and the locations where the trials were located.

Methods

Testing procedures (randomization, replication, planting rates, etc.) for silage evaluation are the same as those utilized for the grain trials. For silage Agronomic information refer to Table C (pg. 34)

Zones 1 and 2/3 were divided into two maturity groups (designated early and late) on the basis of the maturity ratings (RM) submitted by the companies with results listed in separate tables. Zones 1, 2, and 3 have two maturity groups "E" or "L" based on company RM. In cooperation with The Ohio State University, the Wood County OH location is planted and managed by OSU while MSU handles harvest, plus quality and data analysis.

Silage plots were harvested with a two-row self-propelled forage harvester. Electronic scales mounted on the chopper measured plot weights. Total plot weight was applied to calculate green tons per acre (GT/A). Sub samples of fodder including grain were collected, weighed, oven dried until weight loss was zero, then weighed again to determine the percent dry matter (%DM). Dry tons per acre (DT/A) is calculated by multiplying GT/A by %DM. The samples were ground using a 1.0 mm screen before conducting quality analysis using NIR (near infrared reflectance).

Silage Analysis

Tables 7E, 7L, 8E, 8L, 9 and 10 provide silage quality data as determined by NIR analysis on freshly dried & ground samples. Data is provided for individual locations and also averaged over multiple locations. Near infrared

spectral analysis involves irradiating the sample with light in the near infrared spectrum (1,100 to 2,500 nm). The illuminated sample absorbs light proportional to specific chemical and physical properties. The reflected energy is measured and correlated statistically with established forage quality levels. Results of the five quality traits analyzed are presented in the quality tables. The five quality traits are:

1. **IVD=(in vitro) digestible dry matter.** IVD is a measure of forage digestibility. Higher IVD is desirable.
2. **ADF=acid detergent fiber.** ADF represents the less digestible portion of the corn forage, containing cellulose, lignin, and heat damaged protein. ADF is closely related to the digestibility of forages. Lower ADF implies the forage is more digestible. More mature plant material will contain higher ADF concentrations. A low concentration of ADF is desirable.
3. **NDF=neutral detergent fiber.** NDF is a measure of the fiber content of the corn forage. It is less digestible than non-fiber constituents of the forage. Forages with high NDF levels have lower energy. NDF is also a measure of potential forage intake. High NDF levels decrease the potential forage intake. Low NDF content is desirable.
4. **NDFD=neutral detergent fiber digestibility.** NDFD is the portion of neutral detergent fiber digested by animals at a specified level of feed intake. High NDFD is desirable.
5. **CP=crude protein.** Forages are generally supplemented with high protein concentrates such as soybean meal to increase the protein content of ruminant diets. Corn hybrids with high protein levels require less supplementation and therefore result in lower feed costs. High protein content is desirable.
6. **STRCH=starch.** Starch from the grain, along with the digestible component of the fiber, accounts for the majority of the energy in corn silage.

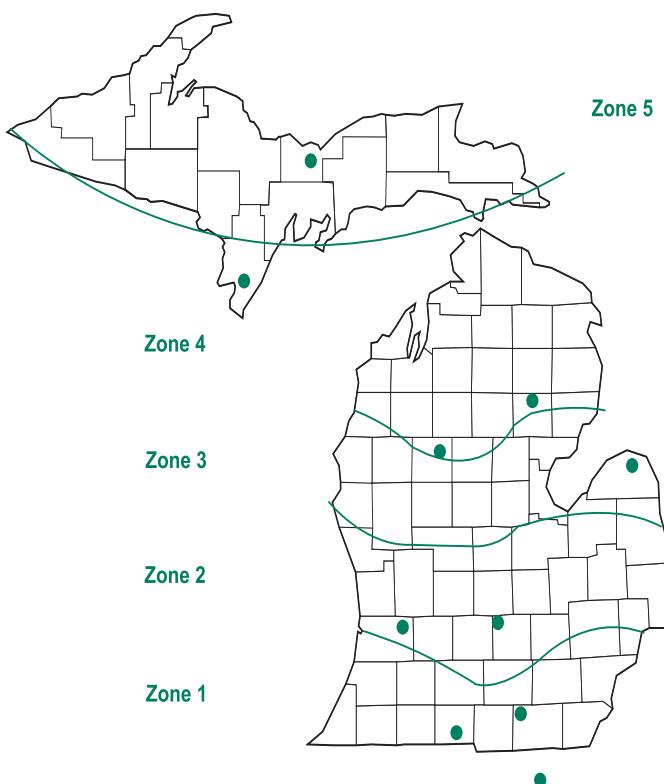
Silage quality traits are reported on a dry matter basis (100 percent DM). Quality traits in these tables are intended for use in hybrid selection only. Analysis for the balancing of feed rations should be analyzed from hybrids grown on each individual farm.

MILK2006

An updated calculation using the MILK2006 equation (UW-Madison Dairy Science Department) was used to estimate MK/T (milk per ton) and MK/A (milk per acre). MILK2006 estimates the dry matter intake using the NDF and CWD (cell wall digestibility) parameters of the sample. The updated equation utilizes CP, fat, and sugar as well as the organic acid fractions along with their total-tract digestibility coefficients to estimate energy. Whole plant dry matter was calculated to 34% for all hybrids and digestibility coefficients used for the fat and sugars as well as the organic acid fractions were held constant. MILK2006 also assumes the weight of the cow is 1,350 lbs. and that it consumes a 30 percent NDF diet. Using National Research Council (NRC, 2001) energy requirements, the estimated intake of energy from corn silage is converted to milk per ton. Milk per acre is then calculated using the estimated values for milk per ton and dry matter yield per acre. For more information on the utility of MILK2006 please see:

www.uwex.edu/ces/crops/uwforage/Milk2006silage.html

2010 Silage Trial Locations



Notes

TABLE C.

AGRONOMIC TABLE FOR SILAGE TRIAL LOCATIONS

COUNTY		PLANTING DATES	HARVEST DATES	PREVIOUS CROP	100 % STAND	AVERAGE STAND	FERTILIZER N - P - K
Zone 1	BRANCH	April 29	Sept. 7	Corn	33,264	32,732	153-8-2
	LENAWEE	June 1	Sept. 21	Soybeans	34,452	34,245	153-8-2
	WOOD (OHIO)	May 26	Aug 31	Soybeans	32,000	31,648	241-40-40
Zone 2	ALLEGAN	May 4	Sept. 13	Soybeans	34,452	33,522	153-8-2
	INGHAM	May 20	Aug. 30	Soybeans	34,452	34,107	153-8-2
	HURON	May 6	Sept. 8	Corn	35,244	32,601	160-8-2
Zone 4	OGEMAW	May 24	Sept. 20	Corn & Rye Forage	34,452	33,453	153-8-2 +manure
	OSCEOLA	May 17	Sept. 14	Alfalfa	34,452	34,245	153-8-2
	MENOMINEE	May 18	Sept. 15	Alfalfa/Grass	35,244	34,010	97-8-2 +10k gal manure
Z5	ALGER	May 18	Sept. 15	Peas & Oats	34,452	33,556	71-8-2

COUNTY		SOIL TYPE	SOIL TEST	FARM COOPERATOR	LOCATION
Zone 1	BRANCH	Fox Sandy Loam	pH 5.9 P 44, K 110	Kyle Huff	Coldwater
	LENAWEE	Blount Loam	pH 7.2 P 78, K 172	Bakerlad Farms Blaine Baker	Clayton
	WOOD (OHIO)	Hoytville Clay	pH 5.8 P 114 , K 435	Matt Davis OARDC	Hoytville, Ohio
Zone 2	ALLEGAN	Blount Silt Loam	pH 6.4 P 54, K 117	Ken Blaauw	Hopkins
	INGHAM	Capac Loam	pH 6.4 P 63, K 171	Crop & Soil Sciences Research Facility, MSU	East Lansing
	HURON	Kilmanagh Loam	pH 7.5 P 97, K 238	Wil-Le Farms Ron & Ed McCrea	Bad Axe
Zone 4	OGEMAW	Selkirk Loam	pH 7.5 P 49, K 98.5	Mark Beck	West Branch
	OSCEOLA	Isabella Loam	pH 6.2 P 138, K 143	Robert E. Lee	Marion
	MENOMINEE	Onaway Sandy Loam	pH 7.2 P 12.5, K 63.5	Johnson Dairy Farm Dave Johnson	Daggett
Z5	ALGER	Eben Very Cobbly Sandy Loam	pH 7.4 P 86, K 159	Chatham Research Station, MSU	Chatham

SILAGE HYBRID INDEX

ZONE 1 - Tables 7E/7L	ZONE 2 - Tables 8E/8L	ZONE 4 - Table 9	ZONE 5 - Table 10
Branch Lenawee Wood (Ohio) Trial Average	Allegan Huron - Zone 3 Ingham Trial Average	Menominee - Late Ogemaw Osceola Trial Average	Alger Menominee - Early Trial Average
BRAND / HYBRID	RM TABLE	BRAND / HYBRID	RM TABLE
AGRIGOLD		GARST	NuTech
-AGRIGOLD A6309STX	103 8E	-GARST 86J49-3000GT Brand	103 8E,9 NuTech 1B-887 CB/LL
-AGRIGOLD A6323GT3	103 8E	GARST 84U58-3000GT Brand	110 7E,8L ~NuTech 3C-889 RR/YGCB
-AGRIGOLD A6458VT3	109 7E	GARST 83C55-3000GT Brand	114 7L NuTech 5B-290 GT/CB/LL
-AGRIGOLD A6476VT3	110 7E		NuTech 3T-603 VT3
AGRIGOLD A6489VT3	111 7L	GOLDEN HARVEST	NuTech 5N-803 GT/CB/LL/RW
AGRIGOLD A6533VT3	113 7L	GOLDEN HARVEST H-7891 3000GT	103 8E,9
		GOLDEN HARVEST H-8672 3000GT	109 7E,8L ~NuTech 3A-804 GT
		GOLDEN HARVEST H-8952 3000GT	111 7L ~NuTech 3A-406 GT
			NuTech 5N-215 GT/CB/LL/RW
BECK			
-BECK 5354HXRTM*	107 7E	GREAT LAKES	PIONEER
-BECK 5442VT3	110 7E	-GREAT LAKES 4481G3VT3	94 9 PIONEER 39V07
BECK 6733HXRTM*	113 7L	-GREAT LAKES 5090G3VT3	100 9 ~PIONEER P8906HR
		GREAT LAKES 5306G3VT3	103 8E PIONEER 38H08
CROPLAN		-GREAT LAKES 5643VT3PRO	106 8L ~PIONEER P9380XR
-CROPLAN 2871VT3	88 10	-GREAT LAKES 5939G3VT3	109 7E,8L ~PIONEER P0115XR
CROPLAN S61100VT	105 8E	GREAT LAKES 6229G3VT3	112 7L ~PIONEER P0125HR
		GREAT LAKES 6354G3VT3	113 7L ~PIONEER 36V53
DAIRYLAND			PIONEER 35F44
DAIRYLAND Hi DF-3187-7	87 10		105 7E PIONEER P0541XR
DAIRYLAND Hi DF-3195-Q	95 9	HYLAND SEEDS	105 8L
-DAIRYLAND STEALTH-9196	96 9	-HYLAND SEEDS HLB42R	95 9 PIONEER 35A34
-DAIRYLAND STEALTH-1898	98 9	HYLAND SEEDS HLCVR74	100 8E PIONEER 34A89
DAIRYLAND Hi DF-3000-9	100 8E	-HYLAND SEEDS HLB77R	108 8L PIONEER P1011XR
-DAIRYLAND STEALTH-9703Q	103 8E		PIONEER 33D14
DAIRYLAND Hi DF-3105-Q	105 8L	LEGACY SEEDS	113 7L PIONEER 33F88
DAIRYLAND STEALTH-9208Q	106 8L	-LEGACY SEEDS L-5350 3000GT	104 8E
DAIRYLAND EXP-10801	108 7E,8L	-LEGACY SEEDS L-5309 3000GT	106 8L
-DAIRYLAND STEALTH-1809	109 8L		
DAIRYLAND Hi DF-3110-6	111 7L,8L	MYCOGEN	RENK
DAIRYLAND STEALTH-6213	111 7L	MYCOGEN 2C302	-RENK RK302GTCBLL
		MYCOGEN TMF2Q298	89 9 89 9
		MYCOGEN F2F488	-RENK RK563CBLLRW
DYNAGRO		MYCOGEN TMF2R522	98 9 98 9
DYNAGRO D34VN19	94 8E,9	MYCOGEN TMF2L533	-RENK RK565GTCBLLRW
DYNAGRO D39QN29	99 9	MYCOGEN 2W587	99 8E,9
-DYNAGRO D40SS09	101 8E,9	MYCOGEN F2F569	-RENK RK698VT3
-DYNAGRO D45Q50	105 8L	MYCOGEN F2F622	103 8E
-DYNAGRO 56R60	107 7E	MYCOGEN F2F665	
DYNAGRO V4884HXTRNS	108 8L	MYCOGEN TMF2Q717	
DYNAGRO V5294HXTRNS	112 7L	MYCOGEN TMF2W727	
G2 GENETICS			
-G2 GENETICS 5H-891 RR/HX	91 10	NK Brand	STEWART SEEDS
G2 GENETICS 5X-100 RR/HXT	100 9	-NK Brand N29T-3000GT Brand	STEWART SEEDS 7T630
-G2 GENETICS 5H-005 RR/HX	105 8L	-NK Brand N53W-3000GT Brand	109 7E,8L
-G2 GENETICS 5H-007 RR/HX	107 7E,8L	NK Brand N73V-3000GT Brand	STEWART 7V828
G2 GENETICS 5H-609 RR/HX	109 7E		111 7L
-G2 GENETICS 5X-209 RR/HXT	109 8L		STEWART SEEDS 8T468
-G2 GENETICS 5X-711 RR/HXT	111 7L		116 7L
G2 GENETICS 5H-515 RR/HX	115 7L		
G2 GENETICS 5H-516 RR/HX	116 7L		
			WOLF RIVER VALLEY
			WOLF RIVER VALLEY WRV 2087L
			87 10
			WOLF RIVER VALLEY WRV 2096L
			96 10
			WOLF RIVER VALLEY WRV 2702L
			100 9
			~ Denotes hybrids that were entered into the Grain and Silage Trials.

Notes

BRAND / HYBRID	RM	TRT	TRAIT	YIELD				% QUALITY				MENOMINEE - EARLY			
				%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MKT	MKA
CROPLAN 2871VVT3	88	C250	1.2	36.8	20.5	7.5	98	79.8	22.3	42.5	52.6	6.5	39.9	3141	23697
DAIRYLAND HI DF 31187-7	87	C250	1.2	35.4	24.2	8.6*	100	80.2	23.2	44.0	54.9	6.4	38.1	3144	26832
G2 GENETICS 5H-891 RRIHX	91	C250	1.24	42.9	19.8	8.5*	91	78.5	23.6	43.6	50.7	6.2	42.7	3058	25921
MYCOGEN 2C302	89	C250	1.24	36.5	21.3	7.8	99	76.1	25.1	47.0	49.1	6.2	37.1	2885	24231
MYCOGEN TMF2Q298	89	C250	1.23.4	35.3	22.8	8.0*	98	79.8	23.1	44.2	54.4	6.9	36.7	3121	26287
NuTech 1B-887 CBILL	87	C250	2.4	42.7	18.8	8.0*	94	80.1	21.4	41.7	52.1	6.4	41.5	3164	25407
NuTech 3C-889 RRYYGCB	89	P250	1.2	40.2	22.7	9.1**	100	80.7	21.8	42.1	54.1	6.1	41.8	3195	29074
NuTech 5B-290 GTICBILL	90	C250	1.24	42.7	18.6	8.0*	98	76.1	23.9	48.5	50.9	5.8	40.1	2876	22779
PIONEER 38408	92	P1250	1.24.11	39.3	19.9	7.8	98	74.0	29.8	53.1	51.2	5.6	33.9	2711	21257
PIONEER 39007	80	P250	1.24	48.0	15.6	7.5	94	76.5	26.8	49.1	52.3	6.5	36.3	2888	21586
PIONEER P8906HR	89	P1250	1.24	42.9	18.6	8.0*	97	77.1	24.9	45.9	50.1	6.1	40.4	2956	23511
PIONEER P9380XR	93	C250	1.23.4	38.1	21.9	8.3*	95	79.0	24.9	42.6	50.9	6.0	41.7	3096	25781
WOLF RIVER VALLEY WRV 2087L	87	P250		35.0	20.1	6.9	96	76.1	27.3	50.2	52.3	6.6	31.8	2853	19752
WOLF RIVER VALLEY WRV 2087L	87	P250		35.0	20.1	6.9	96	76.1	27.3	50.2	52.3	6.6	31.8	2853	19752
WOLF RIVER VALLEY WRV 2096L	96	P250		31.6	25.7	8.1*	96	79.8	23.7	45.2	55.2	6.7	34.7	3110	25183
AVERAGE				39.1	20.8	8.0	96.7	78.1	24.4	45.7	52.2	6.3	38.3	3014	24379
HIGHEST				48.0	25.7	9.1	100.0	80.7	29.8	53.1	55.2	6.9	42.7	3195	29074
LOWEST				31.6	15.6	6.9	91.1	74.0	21.4	41.7	49.1	5.6	31.8	2711	19752
CV (%)				7.1	9.6	9.5	4.1	3.8	9.6	9.0	6.9	5.1	8.2	7	12
LSD (5%)				4.0	2.8	1.1	5.7	4.3	3.3	5.9	5.1	0.5	4.5	289	4158

BRAND / HYBRID	RM	TRT	TRAIT	YIELD				% QUALITY				MENOMINEE - EARLY			
				%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MKT	MKA
NuTech 1B-887 CBILL	87	C250	2.4	36.6	21.1	7.6*	94	79.8	23.6	45.4	55.3	6.8	36.7	3156	23994
NuTech 3C-889 RRYYGCB	89	P250	1.2	39.0	21.2	8.3**	98	80.5	23.7	46.8	58.1	6.4	35.9	3183	26333
PIONEER 38408	92	P1250	1.24.11	37.3	20.3	7.6*	94	77.3	27.1	49.8	54.8	6.0	34.4	2971	22499
AVERAGE				37.7	20.9	7.8	95.6	79.2	24.8	47.3	56.1	6.4	35.7	3103	24275
HIGHEST				39.0	21.2	8.3	98.4	80.5	27.1	49.8	58.1	6.8	36.7	3183	26333
LOWEST				36.6	20.3	7.6	94.2	77.3	23.6	45.4	54.8	6.0	34.4	2971	22499
CV (%)				8.1	9.0	9.4	3.7	3.4	10.5	8.8	5.8	6.3	10.3	6	12
LSD (5%)				3.1	1.9	0.7	3.6	2.6	2.6	4.1	3.1	0.4	3.8	178	2968

** Highest Yielding Hybrid
 * Not Significantly Different from Highest Yielding Hybrid

Company Index

Introduction

Weather

Corn Grain Performance Trials

Zone 1 Grain Early - 107 Day and Earlier

Zone 1 Grain Late - 108 Day and Later

Zone 2 Grain Early - 101 Day and Earlier

Zone 2 Grain Late - 102 Day and Later

Zone 3 Grain Early - 97 Day and Earlier

Zone 3 Grain Late - 98 Day and Later

Zone 4 Grain - 95 Day and Earlier

Zone 5 Grain - 92 Day and Earlier

Corn Grain Agronomics

Glyphosate Resistant - 96 Day and Earlier

Glyphosate Resistant - 98 Day and Later

Corn Grain Hybrid Index

Corn Silage Performance Trials

Corn Silage Agronomics

Corn Silage Hybrid Index

Zone 1 Silage Early - 110 Day and Earlier

Zone 1 Silage Late - 111 Day and Later

Zone 2 - 3 Silage Early - 104 Day and Earlier

Zone 2- 3 Silage Late - 105 Day and Later

Zone 4 Silage - 103 Day and Earlier

Zone 5 Silage - 96 Day and Earlier

THANK YOU TO OUR FARM COOPERATORS:

ZONE 1

Baker-Ladd Farms, Blaine Baker, Clayton

Dave and Mel Cripe, Cassopolis

Kyle Huff, Coldwater

OSU NW Experiment Station, Hoytville, Ohio

Mathew Talladay, Milan

ZONE 2

Ken Blaauw, Hopkins

Fred Gross Farms -

Peggy Gross & Dick Birchmeier, New Lothrop

Jorgensens Farm Elevator -

Jerry Jorgensen & Mike Turner, Williamston

MSU Agronomy Farm, Brian Graff, East Lansing

ZONE 3

Montcalm Research Farm, Bruce Sackett, Entrican

Robert Oshe, Custer

Sacket Farms, Larry Sackett, Stanton

Wil-le Farms, Ron & Ed McCrea, Bad Axe

ZONE 4/5

Benny Herioux, Bark River

Johnson Dairy Farm, Dave Johnson, Daggett

Robert E. Lee, Marion

Mark Beck, West Branch

UP Experiment Station, Chris Kapp, Chatham

THANK YOU TO THOSE WHO HELPED:

Ryan Rademacker

Jennifer Freed

Jake Williams

Paul Wamhoff

Katie Hard

- Department of Crop and Soil Sciences -

**MICHIGAN STATE
UNIVERSITY
EXTENSION**

MSU is an affirmative action/equal opportunity institution. Michigan State University Extension programs and materials are available to all without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, marital status, or family status. Issued in furtherance of MSU Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Thomas G. Coon, director, MSU Extension, East Lansing, MI 48824. - This information is for educational purposes only. Reference to commercial products or trade names does not imply endorsement by MSU Extension or bias against those not mentioned. This bulletin becomes public property upon publication and may be reprinted verbatim as a separate or within another publication with credit to MSU. Reprinting cannot be used to advertise a commercial product or company.