

### 2022 MICHIGAN CORN HYBRIDS COMPARED

EXTENSION BULLETIN E-431



College of Agriculture and Natural Resources

RESEARCH CONDUCTED BY MICHIGAN STATE UNIVERSITY Results of the 2022 Growing Season

### **COMPANY INDEX**

BRAND	CONTACT	BRAND	CONTACT
AG ARMOUR	Ag Armour Seeds 8236 North Williams Rd. St. Johns, MI 48879 https://ag-armourseeds.com/	M & W SEEDS	M & W Seeds Incorporated 8443 Wilcox Road Eaton Rapids, MI 48827 www.mwseeds.com
CHANNEL	Channel Seed 1299 N 5th Street Columbus, OH 43201 www.channels.com	NK Brand	Syngenta Seeds, Incorporated 2001 Butterfield Rd Suite 1600 Downers Grove, IL 60515 www.syngenta-us.com/seeds/nk
DAIRYLAND	Dairyland Seed P.O. Box 958 West Bend, WI 53095 www.dairylandseed.com	RENK	Renk Seed Company 6809 Wilburn Road Sun Prairie, WI 53590 www.renkseed.com
DYNA-GRO	Dyna-Gro Seed 4648 S. Garfield Road Auburn, MI 48611 www.dyna-groseed.com	ROB-SEE-CO	Rob-See-Co 1015 N. 205th St. Elkhorn, NE 68022 www.ruppseeds.com
GOLDEN HARVEST	Syngenta Seed 11055 Wayzata Boulevard Minnetonka, MN 55440 www.syngenta.com	SEEDWAY	Seedway LLC 1734 Railroad Place Hall, NY 14463 www.seedway.com
LEGACY SEEDS	Legacy Seeds, Incorporated P.O. Box 68 - 290 Depot St. Scandinavia, WI 54799 www.legacyseeds.com	SPECIALTY	Specialty Hybrids 306 N Main Street Monticello, IN 47960 www.specialtyhybrids.com
LEGEND	Legend Seeds P.O. Box 241 De Smet, SD 57231 www.legendseeds.com	VIKING	Albert Lea Seeds 1414 West Main Street P.O. Box 127 Albert Lea, MN 56007 www.seedhouse@alseed.com
LG SEEDS	LG Seeds 1122 169th St. Westfield, IN 46074 www.lgseeds.com		

### 2022 MICHIGAN CORN PERFORMANCE TRIALS

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### Introduction

The Michigan State University (MSU) Department of Plant, Soil and Microbial Sciences conducts the Michigan Corn Performance Trials (MCPT) each year in cooperation with Michigan State University AgBioResearch, The Ohio State University, seed corn companies, and farmers, to determine yield and quality performance for corn hybrids throughout the state of Michigan.

### Entries

Seed companies are invited to enter their hybrids in the trials and a fee is charged to cover incurred expenses. Separate indices for grain (pg. 10 and 11) and silage (pg. 25) provide a list of all hybrids entered in the 2022 trials. A total of 204 hybrids from 15 brand names make up the 230 entries, which translates into 2,760 separate plots planted across 12 grain locations and 9 silage locations in Michigan in 2022. Hybrids are entered into zones based upon growing degree days and then grouped into Early and Late trials based upon relative maturities. Company names used in association with hybrid numbers refer to the brand. Hybrid numbers are designated by the company.

Hybrids may have a seed-applied insecticide that is not listed in the bulletin. These seed-applied insecticides may enhance yield. The "TRAIT" column lists the abreviation for a hybrids technology package, Hybrid technologies and their respective abbreviations can be found in Table D.1 (pg. 7). Trait codes used to define these hybrid technologies can be found in Table D.2 (pg. 7). All other hybrid traits not listed in Tables D.1 or D.2, pertaining only to hybrids with the given superscript per the hybrid index (page 10, 11 and 25, respectively), can be found in Table D.3 (pg. 7).

### How to Use This Bulletin

Tables list hybrids alphabetically and contain yield results for each location along with trial averages within each zone. Complete one-year yield results are listed in tables for each trial within each zone, where data is available. Two-year yield results can be found on our website listed below. Oneyear single-site results are less reliable than multiple year and multiple location averages, therefore one-year singlesite results 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 website:

### https://www.canr.msu.edu/varietytrials

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

The highest yielding hybrid in each trial is indicated with a double asterisk (\*\*), 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 Table B for the grain trials (pg. 9) and Table C for the silage trials (pg. 24). Fertilizer amounts are shown as total pounds per acre of N, P2O5, and K2O applied during the season.

### Season in Summary: 2022

Entry forms for participating companies were due March 15th; by the end of March seed was starting to arrive. After a lot of paperwork, printing labels, and placing labels on packets, we began counting seeds and filling packets. Seed packets were sorted by trial and location and organized according to the randomization for each location.

Planting commenced in Ingham County on May 11th and ended in losco and Osceola Counties on June 3rd. Changes in county locations for the 2022 season included moving the Missaukee County location to Gingrich Meadows in Osceola County.

Weed control was applied at trial locations as needed. Fertilizer applications were consistent with rates that were necessary based on soil type, soil samples, and cooperator recommendations for the field. Stand counts were conducted at all trial locations between the V4 and V6 growth stages.

Silage harvesting began on September 13th in Branch County, and finished on September 22nd in losco and Presque Isle Counties. Grain harvest started on October 22nd in Ingham County and ended November 29th in Presque Isle County.

Due to various uncontrollable circumstances, the Wood and Huron County locations have been dropped. Due to severe lodging, Presque Isle - Early Grain trial was also dropped.

Table A (pg. 5) presents 2022 accumulations of temperature, rainfall, and heat units plus their deviation from 30-year norms. Data is obtained from Michigan State University weather stations located closest to each trial location. Actual accumulation at each location may vary slightly. The weather summary is provided by Dr. Jeff Andresen from the Department of Geography using data from the Michigan State University Agricultural Weather Office.

### 2022 GROWING SEASON WEATHER SUMMARY

Jeff Andresen, Extension Agricultural Meteorologist | Department of Geography, Michigan State University

Overall for Michigan, the 2022 May through September growing season averaged out warmer and somewhat drier than normal. Mean temperatures for the state averaged out at 64.1°F, which was 2.8°F above normal and the 17th warmest on record since 1895 and ranks among the warmest 15% of growing seasons. It also was consistent with an upward trend of mean growing season temperatures of about 0.2°F per decade during the past few decades. Base 50°F seasonal growing degree day accumulations ranged from less than 2100 units across far northern sections of the state to more than 3000 units along the Indiana and Ohio state lines (Figure 1). Those totals generally range from more than 50 units below normal across sections of Upper Michigan to more than 200 units above normal across the extreme south. The mean precipitation total for the state was 15.38" which was 0.52" below average and the 44th driest May-September since 1895. However, seasonal precipitation totals varied considerably by location across the state (Figure 2), ranging from less than 12.00" across sections of east central and northern Lower Michigan to more than 20.00" across portions of the southwestern Lower and western Upper Peninsulas.

Prior to the 2022 growing season, the winter of 2021/2022 (December-February) was slightly milder than normal (the state average temperature departure was +1.5°F), but that masked large variability across the state with winter mean values ranging from near to slightly milder than normal levels across southern sections to more than 4°F below normal across western Upper Michigan. Extreme minimum temperatures during the season were not too far from normal, ranging from -25.0°F in south central Upper Michigan to +3.9°F in west central Lower Michigan. Extreme minimum soil temperatures at a 2" depth during the season ranged from +16.9°F in west central Lower Michigan.

Seasonal precipitation totals averaged across the state were just above normal at 5.50" (0.20" above normal) with observed individual site totals ranging from less than 4.00" across northern Lower Michigan to more than 7.00" across northern portions of the Upper Peninsula. At the beginning of April, the U.S. Drought monitor categorized much of the northern half of the Lower Peninsula and southern sections of the Upper Peninsula as either 'Abnormally Dry' (category D0) or in 'Moderate Drought' (category D1) with more normal conditions observed elsewhere.

A progressive upper air pattern across North America during much of late March and April led to the sequential passage of a number of alternating troughing (with precipitation and relatively cold weather) and ridging (with warmer than normal weather) features across the Great Lakes region resulting in regular wide swings in temperature and above normal precipitation totals in most areas. Temperatures associated with some of the passing troughing features resulted in some significant late season snowfall in many areas. The combination of cooler and wetter than normal weather led to significant challenges and delays in early season fieldwork statewide. It also suppressed early growth and phenological development of overwintering crops.

During early May, the formation of large ridging features across the center of the country led to extended periods of mostly sunny, warm, and rain-free weather that accelerated drying of topsoils which allowed rapid progress of spring planting and other fieldwork operations. By the end of May most spring planting totals were at or even ahead of long-term averages for the date. In addition, topsoil temperatures warming quickly into the 60s and 70s during those periods favored rapid, uniform germination and early growth of planted crops in most areas. Across all the swings in temperature, mean temperatures for May ranged from cooler than normal levels (generally 1-2°F below normal) across northwestern sections of the state to warmer than normal levels across much of Lower Michigan (generally 2-4°F above normal). Precipitation totals for the month varied greatly across the state, ranging from less than 2.00" across northern Lower Michigan (less than 50% of normal) to more than 4.00" across southern and western sections of the Lower Peninsula and western Upper Michigan (120-160% of normal).

In June, Michigan and the Great Lakes region remained on the northern periphery of a large upper air ridging feature that led to periodic heat wave conditions across much of the central and southern USA. In Michigan this resulted occasional incursions of both hot, humid air from the south and relatively cooler air masses from Canada with wide swings in temperature. Mean temperatures across the state averaged out close to the climatological normals for the month, ranging from near normal across northern sections to 1-2°F above normal in the south. Precipitation totals were variable, ranging from 3.00-4.00" or more across northern sections of the state to less than 1.50" (40-70% of normal) across central sections. Just as importantly, potential evapotranspiration rates, the rate at which water could evaporate if it were available on plant and/or soil surfaces, were much above normal over most of the state due to sunnier than normal weather. This combination of conditions led to rapid drying of topsoils, high crop water demands, and to the appearance of water stress symptoms later in the month, especially on coarse-textured soils. By the end of the month, an area of D0 or 'abnormally dry' conditions as categorized by the U.S. Drought Monitor had rapidly developed across central and northern sections of Lower Michigan (26% of the state by area). Seasonal base 50°F growing degree day accumulations (since May 1st) across the state ranged from about 50 units below normal across sections of the Upper Peninsula (2-4 calendar days behind) to more than 100 units above normal (3-6 days ahead) across the southeastern Lower Peninsula.

Mean temperatures for July averaged out close to normal over most of the state, with monthly departures ranging from near zero across northern sections of the state to 1-2°F above normal in the south. Precipitation totals were highly variable depending on location but mostly below normal, ranging from less than 2.00" across northwestern sections of the Lower Peninsula to 4.00" or more across southwestern sections of the state. Dry soils and lack of water became an increasing challenge during the month, especially across central sections of the state. A widespread rain event on the 24th brought relief to some sections of the state, but as of the end of the month, 46% of the state was still classified as unfavorably dry (category D0) or in moderate drought (category D1). As is the case with many weather-related crop effects, the impacts of the dryness varied greatly by location but resulted in elevated levels of moisture stress for corn nearing or entering silking/pollination stages in some areas.

TABLE A.

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

	VEN IOS			MAY			JUNE			лигу			AUGUST		SI	EPTEMBER			SEASON	
	COUNTY		OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV
		TEMP	60.3	46.9	13.4	68.8	58.5	10.3	71.3	67.7	3.6	69.7	71	-1.3	63	69.3	-6.3	66.62	66	0.62
	CASS (Vandalia)	РРТ	3.98	4.24	-0.26	1.49	4.26	-2.77	8.68	4.09	4.59	2.87	4.12	-1.25	3.58	3.38	0.2	20.6	20.09	0.51
		GDD	270	352	-82	546	538	8	662	638	24	614	600	14	433	423	10	2525	2551	-26
τ		TEMP	60.8	58.6	2.2	68.6	68	0.6	71.4	71.3	0.1	6.69	69.5	0.4	62.4	62.4	0	66.62	99	0.62
əu		РРТ	3.03	4.12	-1.09	2.23	3.97	-1.74	5.93	4.18	1.75	8.87	4.42	4.45	1.59	3.41	-1.82	21.65	20.1	1.55
οZ	(condwarer)	GDD	391	342	49	561	545	16	667	650	17	619	603	16	415	403	12	2653	2543	110
		TEMP	62	59	'n	69	68.5	0.5	71.8	72.2	-0.4	70	70.2	-0.2	61.4	63.1	-1.7	66.84	99	0.84
	(Morenci)	РРТ	5	4.04	0.96	4.16	4.11	0.05	3.98	3.44	0.54	5.08	3.4	1.68	0.28	3.32	-3.04	18.5	18.31	0.19
	ואוסופווכו)	GDD	399	361	38	436	554	-118	673	662	11	597	616	-19	267	431	-164	2372	2624	-252
		TEMP	63.2	57.9	5.3	71	67.5	3.5	73.5	71.3	2.2	72.1	69.5	2.6	64.2	62.1	2.1	68.8	99	2.8
		РРТ	4.76	3.66	1.1	1.56	3.85	-2.29	2.3	2.94	-0.64	5.97	3.48	2.49	2.17	2.75	-0.58	16.76	16.68	0.08
	Lausing)	GDD	451	342	109	614	539	75	719	654	65	688	611	77	455	414	41	2927	2560	367
2		TEMP	61.2	58.1	3.1	68.6	67.9	0.7	72.1	71.6	0.5	70.8	69.5	1.3	63.2	62.3	0.9	67.18	99	1.18
əu		РРТ	3.42	3.41	0.01	2.23	3.28	-1.05	2.99	2.83	0.16	3.87	3.85	0.02	2.44	2.81	-0.37	14.95	16.18	-1.23
οZ	(rreeland)	GDD	399	333	99	551	542	6	679	663	16	649	608	41	426	413	13	2704	2559	145
		TEMP	61	58.8	2.2	67.2	68.4	-1.2	71.3	72.4	-1.1	70.2	40.6	29.6	63.7	63.1	0.6	66.68	99	0.68
	ULLAWA	РРТ	2.35	3.99	-1.64	1.04	3.94	-2.9	3.75	3.86	-0.11	4.27	3.55	0.72	1.91	3.42	-1.51	13.32	18.76	-5.44
	(Alleridale)	GDD	390	350	40	499	559	-60	657	684	-27	603	640	-37	437	427	10	2586	2660	-74
		TEMP	60.2	54.9	5.3	6.99	65.3	1.6	70.3	70	0.3	69.4	68.5	0.9	63	62.1	6.0	65.96	99	-0.04
	HURON (Pigeon)	РРТ	1.9	3.25	-1.35	2.2	3.21	-1.01	2.23	3.57	-1.34	3.59	3.4	0.19	3.24	3.11	0.13	13.16	16.54	-3.38
		GDD	345	265	80	486	468	18	621	602	19	595	559	36	406	393	13	2453	2287	166
8	MACON	TEMP	57.9	55.8	2.1	64.1	64.5	-0.4	69.4	69.1	0.3	67.9	68	-0.1	61.6	61.9	-0.3	64.18	99	-1.82
<b>J</b> U	(actoribii I)	РРТ	3.69	3.36	0.33	4.87	3.65	1.22	4.88	3.38	1.5	4.27	3.16	1.11	2.34	3.23	-0.89	20.05	16.78	3.27
οZ	(LUUIII BLUII)	GDD	318	295	23	449	462	-13	609	594	15	562	562	0	394	393	1	2332	2306	26
	MONTCAL M	TEMP	58.7	57.7	1	67.8	67	0.8	71.2	70.5	0.7	69.8	68.9	0.9	62.2	61.6	0.6	65.94	99	-0.06
	(Entrican)	РРТ	2.68	4.05	-1.37	1.89	3.62	-1.73	3.4	3.12	0.28	5.9	3.5	2.4	1.53	3.04	-1.51	15.4	17.33	-1.93
	וחורמוו)	GDD	352	354	-2	533	528	5	650	629	21	620	592	28	400	416	-16	2555	2519	36
		TEMP	58.6	54.2	4.4	65.4	64.7	0.7	69.3	68.8	0.5	69	67.4	1.6	61.7	60.1	1.6	64.8	99	-1.2
	IOSCO (Hale)	ЪРТ	2.21	3.11	-0.9	3.23	3.54	-0.31	3.24	3.5	-0.26	4.59	3.4	1.19	1.59	2.83	-1.24	14.86	16.38	-1.52
		GDD	350	273	77	490	465	25	597	574	23	592	531	61	399	358	41	2428	2201	227
Þ ;		TEMP	57.5	55.7	1.8	63.5	65.4	-1.9	69.1	69.5	-0.4	67.4	67.3	0.1	60.5	59.7	0.8	63.6	99	-2.4
<b>J</b> U	DOULOUA (LE	РРТ	5.68	3.73	1.95	1.34	3.32	-1.98	3.46	3.3	0.16	6.74	4.07	2.67	2.14	3.01	-0.87	19.36	17.43	1.93
οZ	lyun	GDD	337	308	29	338	485	-147	580	595	-15	548	542	9	364	369	-5	2167	2299	-132
		TEMP	58.1	54.9	3.2	63.4	64.4	-1	67.8	68.8	-1	65.9	67.6	-1.7	59.1	60.4	-1.3	62.86	99	-3.14
		РРТ	1.42	3.04	-1.62	3.25	2.87	0.38	1.53	3.24	-1.71	3.74	3.28	0.46	1.84	3.17	-1.33	11.78	15.6	-3.82
	(LUSEII)	GDD	310	302	8	289	468	-179	310	583	-273	444	552	-108	241	377	-136	1594	2282	-688
TEMF	P = Mean temperatur	e (°F)							<b>JBS = Total</b>	s observed	in 2022									
= Tqq	= Precipitation (inches	S)							VORM = No	rmals calcu	lated over 3	30 year peri	iod (1981-20	010)						
GDD	= Growing Degree Da	ay calcula	ted at base	50°F, with a	an 86°F cuto	ff			DEV = Devia	tion of obs	erved from	normal								
	)													lable courte	sy of MSU	Agricultural	Weather C	Office (517-3	355-0231)	

### - Weather Continued From Page 4

Following a hot, humid start of August and a cooler than normal second week, temperatures during the second half of the month stabilized close to the long term normals. A widespread heavy rain event on the 3rd and 4th of the month brought relief and significantly improved growing conditions in many central and southern areas of the state. Immediately following that event, there was a stretch of unusually warm, humid weather from the 3rd-8th of August during which the dewpoint temperatures (a direct measure of humidity, the higher the dewpoint, the greater the humidity) in most southern and central sections of the state never fell below 70F (climatologically very uncommon) with extended evening/ overnight wetting events (some in excess of 12 hours per day) that led to a sudden and recent surge of plant disease pressure. Mean temperatures for the month averaged out close to slightly above normal levels, with departures generally ranging from 1-2°F in most areas of the state. Monthly precipitation totals were well above normal in most areas, ranging from just over 3.00" across extreme southwestern and southeastern sections of Lower Michigan to more than 5.00" across large portions of the western Lower Peninsula (generally from 100-150% of normal). Besides the heavy rain event on the 3rd-4th, the monthly totals also included two widespread heavy rain events across western and northern sections of the state on the 13th-14th and the 28th-29th. The passage of a strong cold front on the 29th led to a major severe weather outbreak across the southern half of the Lower Peninsula with more than 50 reports of weather-related damage, mostly the result of damaging straight-line winds. With wetter than normal conditions in many sections of the state, soil moisture levels increased relative to levels earlier in the growing season, although dryness continued as a problem in some central and eastern sections of Lower Michigan.

A broad upper air ridging feature across central sections of North America resulted in mostly warmer and drier than normal weather across Michigan and the Great Lakes region during early September.



**Figure 1**. Base 50°F growing degree day totals from May 1st-September 31st, 2022. Daily degree day totals are calculated with 86°F and 50°F upper and lower cutoffs (the "corn" method). Image courtesy of the Midwestern Regional Climate Center, West Lafayette, IN.

With the exception of western portions of Upper Michigan and the northwestern Lower Peninsula where rainfall was heavier than normal, most areas of Michigan recorded below normal precipitation totals during the month of September. Monthly rainfall totals ranged from less than 1.50" across southern and eastern portions of Lower Michigan to more than 4.00 across northwestern Lower Michigan. Many of the days during late September and early October were fair, mild, and dry which favored harvest activities and winter wheat planting in most areas. Mean temperatures for September generally ranged from near normal across northern sections of the state to 1-3°F above normal elsewhere. The first freezing temperatures (32°F or lower) of the season were observed across some northern and central sections of the state during the last week of the month and the first few days of October. However, very few locations had recorded a first killing freeze (28°F or lower) as of the first week of October.

The formation of a deep upper air low across the Great Lakes region late during the second week of October brought unseasonably cool temperatures, frequent precipitation and an early taste of winterlike weather to Michigan. The system brought the first significant snowfall of the season to many northern areas of the state with accumulations more than 1 foot in some sections of western Upper Michigan. The combination of wet snow and strong winds with the system with leaves still on many trees led to a number of power outages. In general, the weather system brought most outdoor fieldwork activities to a halt by the middle of the month. Fortunately, warmer and drier than normal weather prior to the event during late September and early October and again in late October led to rapid progress in most harvest activities and the season ended near or even slightly ahead of normal for many growers. At the end of the month and season, abnormally dry conditions as defined by the U.S. Drought Monitor continued across 41% of the state including eastern and southern sections of the Lower Peninsula and western sections of Upper Michigan.



Figure 2. Total precipitation (inches), May 1- September 30, 2022. Figure courtesy of Northeastern Regional Climate Center, Ithaca, NY.

### **HYBRID TECHNOLOGIES**

Tal	ble	<b>D.1</b>

TECHNOLOGY	TECH. ABBREVIATION	TRAITS <sup>1</sup>
AcreMax	AM	GT, LL, CB
Agrisure 3120 E-Z	BZ	GT, LL, CB
Agrisure 3122 E-Z	3122 E-Z	GT, LL, CB, RW
Agrisure Duracade 5122 E-Z	D1	GT, LL, CB, RW
Agrisure Duracade 5222 E-Z	D2	GT, LL, CB, RW
Agrisure Viptera 3110	VR	GT, LL, CB
Agrisure Viptera 3220 E-Z	VZ	GT, LL, CB
CONV	CONV	CONV
Powercore	PW	GT, LL, CB
Powercore Enlist	PWE	GT, LL, CB
Qrome	Q	GT, LL, CB, RW
SmartStax	STX	GT, LL, CB, RW
SmartStax RIB Complete	STXRIB	GT, LL, CB, RW
Trecepta	TRE	GT, CB
Trecepta RIB	TRERIB	GT, CB
VT DoublePRO	VT2P	GT, CB
VT DoublePRO RIB Complete	VT2PRIB	GT, CB

<sup>1</sup> Traits found in Trait Codes Table

### OTHER Table D.3 HYBRID TRAITS

Drought Tolerant
Viptera (BL: Broad Leaf)
Western Bean Cutworm
Rootworm
Artersian
Rootworm; Corn Earworm; European Corn Borer; Fall Armyworm; Stalk Borer; Sugarcane Borer; Southwestern Corn Borer; Corn Rootworm
Corn Earworm; Fall Armyworm; Stalk Borer; Sugarcane Borer; Southerwestern Corn Borer
Black Cutworm; Corn Earworm; Fall Armyworm; Stalk Borer; Sugarcane Borer; Southwestern Corn Borer
Black Cutworm; Corn Earworm; European Corn Borer; Fall Armyworm; Stalk Borer; Sugarcane Borer; Southwestern Corn Borer; True Armyworm; Western Bean Cutworm

\* Only pertains to hybrids with the given superscript in Hybrid Index

Table D.2	TRAIT CODES
Code	Trait
CONV	Conventional
GT	Glyphosate Tolerant (RR)
LL	Liberty Link
СВ	Corn Borer

- -

RW Corn Rootworm

### 2022 GRAIN PERFORMANCE TRIALS

### Introduction

The grain index (pg. 10 and 11) contains a list of all hybrids planted in the 2022 grain trials. County results are reported in the following tables:

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

Tables 2E/2L Zone 2 – Ingham, Ottawa, and Saginaw

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

Tables 4E/4L Zone 4 – losco, Presque Isle, and Osceola

Tables 5E/5L Conventional Trial – Ingham (Z2), Montcalm(Z3), and Saginaw (Z2)

\*Locations dropped due to uncontrolable events

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

### Methods

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

Variety trials were conducted on farmers' fields, Michigan State University AgBioResearch Stations, and The Ohio State University Ohio Agricultural Research and Development Center. Planting was accomplished with an Almaco Seed Pro 360 vacuum planter equipped with precision metering units, Kinze planting units and, Trimble GFX-750 paired with a NAV-900 controller provided the GPS signal. Four row plots were planted at a uniform length of 22 feet with a 3-foot alleyway at 30-inch row spacing. Plots were planted at a population of 33,264 seeds per acre. Experimental design, data acquisition, analysis of variance, and data summarization were facilitated in part by Agronomix software, Genovix. The experimental layout was a four-replication, randomized complete block design. Hybrid performance is reported as the adjusted mean averaged from four replicated plots.

All plots within a location were managed uniformly with the same date of planting, fertilizer applications, pest control, harvest date and other management practices. In the field, hybrids were identified only by a plot number to assure unbiased comparisons. Trials in Branch, Cass, and Ottawa counties were irrigated.

Data was collected on the center two rows of each plot. Target population rates and average trial populations are listed with other important agronomic information in Table B (pg. 9). Stalk lodging (%SL) measurements were recorded during harvest. All plants broken below the ear and/or leaning more than 45 degrees were counted as a lodged plant. Moisture content (%H2O) and field weights were measured by a Harvest MasterTM single plot high capacity Grain GageTM HM800 System that is mounted on the Kincaid 8-XP plot combine.

Grain yields are reported in bushels per Acre (Bu/A) and is adjusted to a standard of 15.5 percent moisture. Data was recorded on a Panasonic FZ-G1 Toughpad using Harvest MasterTM Software. Grain test weight (Twt) 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 (%H20)
- Yield of shelled corn corrected to 15.5 percent moisture (Bu/A)
- 3. Test weight at harvest moisture (Twt)
- 4. Percent stalk lodging (plants broken below the ear and/ or 45 degrees off vertical at harvest) (%SL)
- 5. Percent stand of target population (%Sd)





TABLE B.

### AGRONOMIC TABLE FOR GRAIN TRIAL LOCATIONS

	County	Planting Date	Grain Harvest	Previous Crop	Fertilizer N-P-K	Soil Type	Soil Test <sup>1</sup>	Cooperator	-
	CASS (Irrigated)	5/24	11/11	Soybean	174-10-3	Loam	PH 6.5, P 20, K 157	Brossman's Farm George Brossman	
î ənoz	BRANCH (Irrigated)	5/24	11/14	Soybean	199-8-2	Loamy Sand	PH 7.3, P 98, K 104	Huff Farms Kyle Huff	
	LENAWEE	6/1	11/17	Corn	167-7-2	Loamy Sand	PH 6.6, P 160, K 166	Raymond & Stutzman Farm Tim Stutzman	
	INGHAM	5/11	10/22	Soybean	169-8-2	Sandy Clay Loam	PH 6.1, P 23, K 90	Plant, Soil and Microbial Sciences Facility MSU	
2 ənoZ	OTTAWA (Irrigated)	5/17	11/10	Corn	202-10-3	Sand	PH 6.6, P 74, K 132	Ottawa Station Farms Adam Geertman	
	SAGINAW	5/25	11/7	Soybean	171-9-3	Sandy Clay Loam	PH 6.4, P 45, K 132	Fred Gross Farms Peggy Gross, Dick Birchmeier	
	HURON			ΓOC	ATION DROPPI	Q		Wil-Le Farms Ron, Ed and Chris McCrea	
£ ənoZ	MONTCALM	I 6/2	11/23	Soybean	171-9-3	Sandy Loam	PH 6, P 22, K 76	Karnatz Farms Scott Karnatz	
	MASON	6/2	11/9	Corn	174-10-3	Sandy Loam	PH 6, P 66, K 96	Robert Ohse Ryan Ohse	
	IOSCO	6/3	11/8	Corn	171-9-3	Sandy Loam	PH 7.3, P 57, K 191	Double B Dairy Jeremy, Tim and Roger Beebe	
4 ∋no∑	OSCEOLA	5/13	11/9	Soybean	26-11-3	Sand	PH 6.7, P 47, K 90	Gingrich Meadows Brandon Gingrich	
	PRESQUE ISLE	6/3	11/29	Corn	170-8-2 + manure	F Sandy Loam	PH 7.5, P 63, K 111	Ponik Farms Paul Ponik, Jeremy Karsten	

<sup>1</sup> - P and K reported in m3-ppm

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### **GRAIN HYBRID INDEX**

COMPANY/HYBRID	RM	TECHNOLOGY	TABLE	COMPANY/HYBRID	RM	TECHNOLOGY	TABLE
AG ARMOUR				GOLDEN HARVEST	(cont.)		
AA9100	91	VR	3E	G00A97-3120A	100	BZ 1	2E.3L
AA9304	93	D1	3E	G02K39-5122	102	D1	2L,3L
AA10253	102	PWE	2L	G07G73-5122	107	D1	1E
AA10848	108	D1	1L	G08R52-3220	108	VZ <sup>2</sup>	1L
				G10L16-5222A	110	D2 1,2	1L
DAIRYLAND SEED				G12S75-5122	112	D1	1L
DS-2080AM	80	AM	4E				
DS-2505Q	85	Q	4E	LEGACY			
DS-2531AM	85	AM	4E	LC334-21 VT2P	83	VT2P	4E
DS-2919AM	89	AM	4E	LC354-20 3110	85	VR	4E
DS-3022AM	90	AM	3E,4L	LC414-21 VT2P	91	VT2P	4L
DS-3162Q	91	Q	3E,4L	LC444-21	94	CONV	5E
DS-3203AM	92	AM	3E,4L	LC451-21 VT2P	95	VT2PRIB	3E
DS-3477AM	94	AM	3E	LC-3517	95	CONV	5E
DS-3550Q	95	Q	2E,3E	LC482-21 VT2P	96	VT2P	3E
DS-3601AM	96	AM	2E,3E	LC464-21 3120	96	BZ	3E
DS-3727AM	97	AM	2E,3E	LC482-21	96	CONV	5E
DS-3959AM	99	AM	2E,3L	LC474-20 TRE	97	TRERIB	2E,3E
DS-3900AM	99	AM	1E,2E,3L	LC493-21 5122	99	D1	2E,3L
DS-4014Q	100	Q	1E,2L,3L	LC-4248	100	CONV	5E
DS-4018AM	101	AM	1E,2L,3L	LC-4248 VT2P	100	VT2PRIB	3L
DS-4310Q	103	Q	1E,2L	LC511-21 SSX	101	STXRIB	2E,3L
DS-4510Q	105	Q	1E,2L	LC-5217 VT2P	102	VT2PRIB	2L,3L
DS-4878AM	108	AM	1L,2E	LC525-21 PW	102	PW	2L,3L
DS-4917AM	109	AM	1L	LC-5217	102	CONV	5L
DS-5095AM	110	AM	1L	LC525-21	102	CONV	5L
DS-5161Q	111	Q	1L	LC554-21 DGVT2P	104	VI2P	1E,2L
DS-5250AM	112	AM	1L 41	LC544-22	104	CONV	
DS-5279Q	112	Q	ΊL	LC564-20 PW	106		TE,ZL
DVNA-GRO SEED				LC504-20 LC594-21 VT2P	100	VT2P	5L 1L
	01		41				
D31VC23	0/		4L 2E 3E /I	LEGEND			
D36\/C66	96	VT2PRIB	2E,3E,4E 2E 3E /I	0101\/IP3110A	01	VR	3⊑
D40VC41	100	VT2PRIB	2E,3E,4E	48392 SS RIB	92	STXRIB	3E
D41SS60	102	STXRIB	31	9V20AM	96	AM	3E
D44DC73	104	VT2PRIB <sup>1</sup>	2L	4397 TRE RIB	97	TRERIB	2E
D45TC55	105	TRERIB	1E,2L	9200 VT2P RIB	100	VT2P	2E
D48VC84	108	VT2PRIB	1L	5800 VT2P RIB	100	VT2P	2E
D50VC09	110	VT2PRIB	1L				
COLDEN HARVEST							
	07	<b>V7</b> 2	45				
G01 AD3-3220	01	VZ <sup>2</sup>	4E 2E 4				
G91V31-3222A	91		3⊏,4L 2⊏				
G93A49-5122	93		3E 2E 2E				
G90D02-0220 C07A26 2020	90 07	V Z Z	∠⊏,3E 2E 2E				
G91A30-3220	91	V Z Z	∠⊑,3E 2E 3I				
033701-0222	33		ZL,JL				

OTHER HYBRID TRAITS:

1 DT

<sup>2</sup> VIPTERA (BL: BROAD LEP.)

<sup>3</sup> WBC

<sup>4</sup> RW

<sup>5</sup> ARTESIAN

<sup>6</sup> BCW, CEW, ECB, FAW, SB, SCB, SWB, CR

<sup>7</sup> CEB, FAW, SB, SCB, SWB

<sup>8</sup> BCW, CEW, FAW, SB, SCB, SWB

<sup>9</sup> BCW, CEW, ECB, FAW, SB, SCB, SWB, TAW, WBC

### **GRAIN HYBRID INDEX (cont.)**

COMPANY/HYBRID	RM	TECHNOLOGY	TABLE	COMPANY/HYBRID	RM	TECHNOLOGY	TABLE
M&W				ROB-SEE-CO			
MW97A VT2P	97	VT2PRIB	2E,3E,4L	RC4166-DV	91	VZ	3E
MW98A TRE	98	TRERIB <sup>3</sup>	2E,3L	RC4518-VT2P	94	VT2P	2E,3E
46T29	99	VT2PRIB	2E.3L	D98-43-TRE	98	TRE	1E.2E.3L
46T28	99	CONV	5E	D99-08-VT2P	99	VT2P	1E,2E
45T56	100	VT2PRIB	2E,3L	RC5134-PCE	101	PW	1E,2E
45T55	100	CONV	5E	D05-16-VT2P	105	VT2P	1E
45V21	103	VT2PRIB	1E,2L,3L	RC5768-VT2P	107	VT2P	1E
MW103A VT2P	103	VT2PRIB	1E,2L,3L	RC6038-DV	108	D2	1L
44V74	105	D2 <sup>3</sup>	2L	D10-16-VT2P	110	VT2P	1L
MW105A CNV	105	CONV	5L	RC6170-DV	111	D1	1L
44R33	106	CONV	5L				
44V42	107	VT2PRIB	1E,2L	SEEDWAY			
44V40	107	CONV	5L			0T)/ %	05
44V83	107	VZ <sup>3,4</sup>	1E	SW 9333SS	93	SIX°	3E
43V69	111	TRERIB <sup>3</sup>	1L	SW 9375V1	93		3E
43V43	113	VT2P <sup>1</sup>	1L	SW 97201R	97		35
				SVV 0030V1	100	VIZP'	3L
RENK				SPECIAL TY HYBRID	S		
RK297VT2P	88	VT2P	4E		07	) (TOD	05
RK400VT2P	93	VT2P	4L	27D728	97	V12P	2E
RK485DGVT2P	94	VT2P <sup>1</sup>	3E	30D1192	100	IKE	2E
RK444VT2P	94	VT2P	4L	340001	104	VI2P	ZL 4E
RK561DGVT2P	96	VT2P <sup>1</sup>	3E	30D200	100	VI2P	
RK593VT2P	97	VT2P	3E	37D03Z	107	VIZP	1E,2L
RK590VT2P	98	VT2P	3L	30D071 200560	100		1L,ZL
RK579DGVT2P	99	VT2P <sup>1</sup>	3L	390309	109		11
RK600VT2P	100	VT2P	2E	41A392		317	IL
RK600	100	CONV	5E				
RK609VT2P	101	VT2P	2E	VIKING			
RK615SSTX	102	STX	2L	O.52-96P	96	CONV	5E
RK642	103	CONV	5L	0.45-97UP	97	CONV	5E
RK642VT2P	103	VT2P	2L	O.85-00P	100	CONV	5E
RK625DGVT2P	104	VT2P <sup>1</sup>	2L	O.46-02P	102	CONV	5L
RK715SSTX	105	STX	2L	O.84-04	104	CONV	5L
RK710DGVT2P	107	VT2P <sup>1</sup>	2L				
RK700SSTX	108	STX	1L				
RK774VT2P	108	VT2P	1L				
RK805VT2P	110	VT2P	1L				
RK801SSTX	110	STX	1L				
RK821SSTX	111	STX	1L				

OTHER HYBRID TRAITS:

RK826VT2P

1 DT

<sup>2</sup> VIPTERA (BL: BROAD LEP.)

<sup>3</sup> WBC

<sup>4</sup> RW

<sup>5</sup> ARTESIAN

<sup>6</sup> BCW, CEW, ECB, FAW, SB, SCB, SWB, CR

VT2P

111

1L

<sup>7</sup> CEB, FAW, SB, SCB, SWB

<sup>8</sup> BCW, CEW, FAW, SB, SCB, SWB

<sup>9</sup> BCW, CEW, ECB, FAW, SB, SCB, SWB, TAW, WBC

### **ZONE 1**

### TABLE 1E.

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

RRD         RM         TRAIT         WH20         BUA         Tw         %SL         %SL <th>2022</th> <th></th> <th></th> <th>ũ</th> <th>arly - TRI/</th> <th><b>AL AVEI</b></th> <th>RAGE</th> <th></th> <th>B</th> <th>ranch -</th> <th>Early</th> <th></th> <th></th> <th>Cas</th> <th>s - Earl</th> <th>_</th> <th></th> <th></th> <th>Lenawe</th> <th>e - Earl</th> <th>~</th> <th></th>	2022			ũ	arly - TRI/	<b>AL AVEI</b>	RAGE		B	ranch -	Early			Cas	s - Earl	_			Lenawe	e - Earl	~	
DS-401640         09         AM         17.2         219.3         55.6         0         99         15.7         219.3         55.6         0         99         17.7         219.3         55.1         0         99         15.7         219.3         55.1         0         99         15.7         219.3         55.1         0         99         18.2         71.4	SID	RM	TRAIT	02H%	BU/A	Twt	% <b>SL</b> %	Sd %H2	20 BI	U/A T	wt %S	L %Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt %	SL %	6Sd
DS-40140         100         0         177         213.6         53.7         0         97         18.1         245.5         54.3         0         97         18.1         245.5         53.1         0         97         18.1         245.5         53.1         0         97         18.2         20.3         15.5         213.6         53.1         55.2         0         38         15.7         55.4         0         98         15.7         55.4         0         99         18.2         257.5         54.3         0         101         84.2         14.1         52.0         0         99         18.2         257.5         54.3         0         101         102         101         12.2         233.8         54.4         0         101         12.2         233.8         54.4         0         101         12.2         233.8         54.4         0         101         12.2         13.3 <td>I DS-3900AM</td> <td>66</td> <td>AM</td> <td>17.2</td> <td>219.3 *</td> <td>55.6</td> <td>0</td> <td>95 15.</td> <td>3 218</td> <td>6 56</td> <td>3.7 0</td> <td>67</td> <td>17.1</td> <td>251.0</td> <td>56.0</td> <td>0</td> <td>94</td> <td>19.1</td> <td>188.4</td> <td>54.0</td> <td>0</td> <td>96</td>	I DS-3900AM	66	AM	17.2	219.3 *	55.6	0	95 15.	3 218	6 56	3.7 0	67	17.1	251.0	56.0	0	94	19.1	188.4	54.0	0	96
IDS-4016AM         101         AM         175         2771         55.2         0         98         177         2427         55.4         0         94         185         26.4         55.3         0         93         185         75.4         0         94         185         75.3         0         101         184         24.11         52.0         93         15.7         55.5         0         93         182         55.5         0         93         184         23.3         0         101         184         24.1         55.1         0         93         184         23.5         0         93         184         23.5         0         93         184         23.5         0         93         184         23.5         0         93         184         23.5         0         93         184         23.5         0         93         181         139         23.5         0         93         130         102         102         102         124         52.5         0         93         130         103         131         139.5         132         10         103         130         103         131         130         130         131         131<	I DS-4014Q	100	ø	17.7	213.6 *	53.7	0	98 15.	5 205	.9 56	5.3 0	97	18.1	245.5	54.3	0	97	19.5	189.4	50.6	0	66
IDS-843100         103         Q         1778         223.8         54.1         0         7         55.2         10         910         24.1         57.5         54.3         0         101         16.4         52.7         53.0         101         16.4         53.7         0         101         14.4         53.1         0         101         15.7         53.0         101         19.4         53.1         0         101         15.7         53.0         101         19.4         53.1         0         101         13.4         53.1         0         101         13.2         13.5         10         102         11.6         13.0         11.6         13.0         13.1         13.2         13.6         53.1         0         101         13.2         13.0         10         102         13.1         13.1         13.0         13.1         13.1         13.0         13.1         13.1         13.0         13.1         13.0 <t< td=""><td>d DS-4018AM</td><td>101</td><td>AM</td><td>17.5</td><td>227.1 *</td><td>55.2</td><td>0</td><td>93 15.</td><td>9 234</td><td>.4 * 57</td><td>0 0.7</td><td>93</td><td>17.7</td><td>242.7</td><td>55.4</td><td>0</td><td>94</td><td>18.9</td><td>204.3 *</td><td>53.1</td><td>0</td><td>92</td></t<>	d DS-4018AM	101	AM	17.5	227.1 *	55.2	0	93 15.	9 234	.4 * 57	0 0.7	93	17.7	242.7	55.4	0	94	18.9	204.3 *	53.1	0	92
JIDS-45100         105         Q         175         233.4         54.1         0         97         155         213.6         55.9         0         99         188         257.5         54.3         0         101         184         214.1         52.0         0         93           ID45TC5512         105         TRERIB         88.2         233.6         53.6         0         93         174         214.5         55.6         0         93         194         25.7         54.1         0         103         101         114         93.9         53.1         0         93           LC554-21 DGVT2P         104         VT2P         17.3         233.8         54.4         0         100         15.2         222.1         55.6         0         93         194         24.4         53.1         0         93           LC564-20 PW         106         PW         186         279.6         54.8         0         91         18.1         199.9         53.1         0         93           LC564-20 PW         106         PW         152         214.1         54.9         0         91         18.1         124.9         53.1         0         93	d DS-4310Q	103	ø	17.8	223.8 *	54.1	0	96 15.	6 213	3.1 56	5.2 0	98	19.0	241.8	53.7	0	98	18.6	216.4 **	52.5	0	93
dD45TG55         105         TRERIB         18.2         225.8         54.3         0         101         154         153.1         0         101         194         191.4         53.1         0         102           107         D11         192         213.6         53.0         033         17.4         214.5         55.7         0         93         18.1         199.9         53.3         0         98           LC564-20 PW         107         VT2PRIB         17.3         233.8         54.4         0         101         12.2         55.3         0         98         18.1         238.2         56.9         0         98         18.1         201.2         55.3         0         99         16.2         233.5         57.0         93         17.4         24.5         57.1         0         91         12.0         12.0         12.0         130.1         55.6         0         93         18.1         233.5         55.0         94         16.0         130.1         15.6         0         93         130.1         55.6         0         96         193         130.1         55.6         0         96         130.1         15.6         0         93	d DS-4510Q	105	Ø	17.6	228.4 *	54.1	0	97 15.	5 213	3.6 5E	5.9 0	66	18.8	257.5	54.3	0	101	18.4	214.1 *	52.0	0	93
it G07673-5122       107       D1       192       213.6 * 53.6       0       33       17.4       214.5       55.7       0       39       16.6       73.9       53.1       0       38         LC554-2D WW       106       VVT2P       17.3       233.8       54.4       54.7       0       39       16.6       27.9       10.7       17.9       27.1       10.90       15.2       22.3       51.4       53.3       0.10       318.1       1399.4       53.1       0       38         LC554-2D WW       106       VVT       17.9       27.1       57.1       0       90       15.5       25.2       56.9       0       96       19.3       130.1       55.6       0       96       15.7       52.9       0       91       15.0       20.1       55.6       0       96       15.2       25.5       0       91       130.1       55.6       0       96       15.7       25.3       55.2       0       91       130.1       55.7       0       91       93       130.1       55.6       0       86       95.2       10       96       95.2       10       91       910       17.4       55.6       0       96	d D45TC55	105	TRERIB	18.2	225.8 *	54.3	0	01 15.	9 233	30 * 56	5.2 0	66	19.4	252.9	53.7	0	101	19.4	191.4	53.1	0	102
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	st G07G73-5122	107	5	19.2	213.6 *	53.6	0	33 17.	4 214	1.5 55	5.7 0	97	20.5	238.9	52.1	0	96	19.8	187.3	53.0	0	88
LC564-20 PW         106         PW         18.6         219.2         52.9         0         89         16.3         214.1         54.9         0         31         30.1         55.6         0         80         19.4         24.2.3         51.7         0         91         20.1         57.1         0         90         15.6         23.5         53.6         0         96         19.3         130.1         55.6         0         91         31.0         15.5         0         91           5V21         103         VT2PRIB         17.4         52.4         0         97         130         72.0         55.6         0         91         130.1         55.6         0         91         120.1         55.7         0         91         120.1         55.7         0         92         18.5         55.5         0         91         130.1         15.6         0         92           665-102         103         VT2PRIB         17.7         207.7         55.5         0         96         16.3         222.5         56.6         0         91         16.1         16.0         16.1         17.6         53.7         0         92         191         176.7 <td>LC554-21 DGVT2P</td> <td>104</td> <td>VT2P</td> <td>17.3</td> <td>233.8 **</td> <td>54.4</td> <td>0</td> <td>00 15.</td> <td>2 222</td> <td>2.1 55</td> <td>5.6 0</td> <td>86</td> <td>18.6</td> <td>279.6 *</td> <td>* 54.5</td> <td>0</td> <td>103</td> <td>18.1</td> <td>199.9 *</td> <td>53.1</td> <td>0</td> <td>98</td>	LC554-21 DGVT2P	104	VT2P	17.3	233.8 **	54.4	0	00 15.	2 222	2.1 55	5.6 0	86	18.6	279.6 *	* 54.5	0	103	18.1	199.9 *	53.1	0	98
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	: LC564-20 PW	106	PW	18.6	219.2 *	52.9	0	39 16.	3 214	F.1 52	1.9 0	93	19.4	242.3	51.7	0	91	20.1	201.2 *	52.3	0	82
Idv       107       VZ       196       224,4 *       53.3       0       93       17.9       247.3 **       54.8       0       97       181       124.9       55.5       0       97       188       175.7       52.7       0       91         55V21       103       VT2PRIB       17.4       214.7       55.2       0       95       15.2       226.3       57.0       0       97       181       244.9       55.5       0       92       183       172.9       53.7       0       92         056-5122       106       VT2P       177       55.9       0       96       16.5       222.5       56.6       0       95       17.4       247.3       53.2       0       93         056-5122       106       VT2P       117.9       213.6 * 55.5       0       96       16.5       223.4 * 56.0       0       17.4       226.5       53.7       0       93         056-61-VT2P       101       PW       17.3       216.1 * 53.2       0       90       15.7       225.4 * 56.0       0       16.7       244.8 * 54.9       0       17.4       226.5       17.4       17.6       17.7       25.1       17.6       <	14V42	107 \	<b>VT2PRIB</b>	17.9	201.1	57.1	0	90 15.	6 235	99 × 0.9	3.7 0	89	18.8	238.2	56.9	0	96	19.3	130.1	55.6	0	86
Iso 372PRIB       17.4       214.7       55.2       0       95       18.1       244.9       55.5       0       97       18.8       172.9       53.2       0       92         MO103A VT2P       103       VT2PRIB       17.7       207.7       55.9       0       94       16.0       216.4       57.1       0       92       18.5       55.9       0       94       16.7       55.6       0       95       18.6       15.7       54.6       0       95         056-5122       11.5       213.6       55.5       0       96       16.7       226.5       55.6       0       96       16.7       233.9       52.0       0       96       16.7       233.9       55.1       0       96       16.7       24.8       56.4       0       100       17.4       26.6       53.7       0       96       16.7       24.4       56.4       0       96       16.7       24.4       56.4       0       97       14.4       26.5       0       96       16.7       24.1       54.9       0       16.7       24.1       64.6       24.2       55.1       0       96       16.7       24.1       64.9       57.1	14V83	107	λZ	19.6	224.4 *	53.3	0	33 17.	9 247	.3 ** 52	1.8 0	67	20.9	250.4	52.4	0	91	20.2	175.7	52.7	0	91
WW 103A VTZP         103         VTZPRIB         17.7         207.7         55.9         0         94         16.0         216.4         57.1         0         92         18.5         25.3         55.9         0         96         16.2.7         54.6         0         92           0686-5122         106         D1         19.0         198.5         53.7         0         96         16.3         222.5         56.6         0         95         20.2         233.9         52.0         0         94         10.0         17.8         16.0         52.5         0         98           055-16-VT2P         105         VT2P         17.9         213.6         55.5         0         95         15.7         225.4         57.5         0         96         17.4         256.1         0         10.1         15.6         52.5         0         97         17.8         166.3         53.1         0         103           050-065-112         17.2         214.4         55.4         0         97         17.4         264.6         54.4         0         97         17.4         26.6         103         19.1         167.5         53.1         0         103	45V21	103 \	VT2PRIB	17.4	214.7 *	55.2	0	95 15.	2 226	3.57	0 0.7	97	18.1	244.9	55.5	0	97	18.8	172.9	53.2	0	92
066-5122         106         D1         19.0         198.5         53.7         0         96         16.3         222.5         56.6         0         95         20.2         233.9         52.0         0         94         20.6         139.0         52.5         0         98           056-16-VT2P         105         VT2P         17.9         213.6         55.5         0         95         15.7         225.4         57.5         0         96         18.7         264.6         54.4         0         95         192         151.0         54.8         0         103           096-06-VT2P         99         VT2P         117.2         214.4         55.4         0         90         17.4         255.2         0         103         17.4         255.2         0         103         17.4         265.6         0         96         16.7         241.8         56.4         0         97         184.2         55.4         0         96         16.7         241.3         56.4         0         97         17.4         25.4         0         97         17.4         55.4         0         97         10         103           75563-VT2P         107	MW103A VT2P	103 \	<b>VT2PRIB</b>	17.7	207.7	55.9	0	94 16.	0 216	.4 57	7.1 0	92	18.5	253.8	55.9	0	96	18.6	152.7	54.6	0	92
005-16-VT2P         105         VT2P         17.9         213.6*         55.5         0         95         18.7         264.6*         54.4         0         95         19.2         151.0         54.8         0         95           998-43-TKE         98         TKE         16.7         220.2*         54.8         0         101         17.4         255.9         55.2         0         100         17.4         255.9         55.7         0         90         19.1         170.5         53.7         0         87           099-08-VT2P         99         VT2P         17.2         214.4*         55.4         0         90         17.4         242.6         55.9         0         90         19.1         170.5         53.7         0         87           055134-PCE         101         PW         17.3         216.1*         53.2         0         90         19.1         170.5         53.7         0         87           05560         107         VT2P         18.7         24.1         6.4.9         0         97         14.2         54.4         0         97         14.5         51.9         10         17.4         54.4         0         97 <td>0696-5122</td> <td>106</td> <td>5</td> <td>19.0</td> <td>198.5</td> <td>53.7</td> <td>0</td> <td>96 16.</td> <td>3 222</td> <td>.5 56</td> <td>§.6 0</td> <td>92</td> <td>20.2</td> <td>233.9</td> <td>52.0</td> <td>0</td> <td>94</td> <td>20.6</td> <td>139.0</td> <td>52.5</td> <td>0</td> <td>98</td>	0696-5122	106	5	19.0	198.5	53.7	0	96 16.	3 222	.5 56	§.6 0	92	20.2	233.9	52.0	0	94	20.6	139.0	52.5	0	98
098-43-TRE       98       TRE       16.7       220.2 * 54.8       0       101       17.4       255.9       55.2       0       100       17.8       166.3       53.1       0       10         099-08-VT2P       99       VT2P       17.2       214.4 * 55.4       0       90       17.4       242.6       55.9       0       90       17.1       170.5       53.7       0       87         099-08-VT2P       101       PW       17.2       214.4 * 55.4       0       90       17.4       242.6       55.9       0       90       19.1       170.5       53.7       0       87         055134-PCE       101       PW       17.3       216.1 * 53.2       0       96       15.6       244.8 * 54.9       0       91       14.1       54.5       51.9       0       96         cids 36D260       106       VT2P       18.7       241.0       96       20.2       244.7       54.4       0       97       14.5       51.9       0       96         cids 36D260       106       VT2P       18.7       241.0       96       20.2       244.2       54.4       0       97       14.2       56.4       0       96<	005-16-VT2P	105	VT2P	17.9	213.6 *	55.5	0	95 15.	7 225	6.4 57	7.5 0	96	18.7	264.6 *	54.4	0	95	19.2	151.0	54.8	0	95
099-08-VT2P       99       VTZP       17.2       214.4       55.4       0       90       17.4       242.6       55.9       0       90       19.1       170.5       53.7       0       87         C55134-PCE       101       PW       17.3       216.1*       53.2       0       96       15.6       244.8*       54.9       0       97       18.4       248.9       52.7       0       97       18.0       154.5       51.9       0       98         055134-PCE       107       VT2P       19.2       227.7*       54.9       0       96       20.2       244.7       54.4       0       97       18.6       56.3       0       96       20.2       244.7       54.4       0       97       18.0       154.5       51.9       0       96         ids 37D832       107       VT2P       18.7       241.0       96       16.7       241.3       56.3       0       97       14.2       55.3       0       96       16.7       241.2       54.1       0       96       161.4       56.4       0       97       14.2       56.4       0       97       14.2       56.1       0       97       14.2	198-43-TRE	98	TRE	16.7	220.2 *	54.8	0	01 15.	0 238	3.4 * 56	§.0 0	100	17.4	255.9	55.2	0	100	17.8	166.3	53.1	0	103
C5134-PCE       101       PW       17.3       216.1*       53.2       0       96       15.6       244.8*       54.9       0       97       18.4       248.9       52.7       0       93       18.0       154.5       51.9       0       98         RC5768-VT2P       107       VT2P       19.2       227.7*       54.9       0       96       16.7       241.3*       56.4       0       96       20.2       244.7       54.4       0       97.1*       53.9       0       96         rids 36D260       106       VT2P       18.7       221.6       55.5       0       90       16.4       215.8       57.1       0       80       19.6       244.2       55.3       0       95       19.0       96       97.1       54.4       0       96       97.1       54.4       0       96       97.1       54.4       0       96       96       20.2       244.7       54.4       0       97.1       53.9       0       96       107       20.2       204.8       54.0       0       96       107       20.2       204.18       54.0       0       96       111.1       203.7       54.1       0       97 <td< td=""><td>099-08-VT2P</td><td>66</td><td>VT2P</td><td>17.2</td><td>214.4 *</td><td>55.4</td><td>0</td><td>90 15.</td><td>3 230</td><td>.3 * 56</td><td>5.8 0</td><td>93</td><td>17.4</td><td>242.6</td><td>55.9</td><td>0</td><td>90</td><td>19.1</td><td>170.5</td><td>53.7</td><td>0</td><td>87</td></td<>	099-08-VT2P	66	VT2P	17.2	214.4 *	55.4	0	90 15.	3 230	.3 * 56	5.8 0	93	17.4	242.6	55.9	0	90	19.1	170.5	53.7	0	87
C5768-VT2P       107       VT2P       19.2       227.7       54.9       0       96       16.7       241.3       56.4       0       96       20.2       244.7       54.4       0       97       20.9       197.1       53.9       0       96         rids 36D260       106       VT2P       18.7       221.6       55.5       0       90       16.4       215.8       57.1       0       80       19.6       244.2       55.3       0       95       20.2       204.8       54.0       0       96         rids 37D832       107       VT2P       18.9       227.3       54.1       0       94       19.4       263.7       54.1       0       95       11.2       200.2       57.0       0       94         rids 37D832       107       VT2P       18.0       218.0       95       16.3       18.1       56.0       0       94       19.4       263.7       54.1       0       95       11.1       200.2       52.0       0       94         rids 37D832       118.0       218.7       0       95       18.1       17.1       20.3       20.2       204.8       54.0       0       94	RC5134-PCE	101	ΡW	17.3	216.1 *	53.2	0	96 15.	6 244	1.8 * 52	1.9 O	97	18.4	248.9	52.7	0	93	18.0	154.5	51.9	0	98
rids 36D260 106 VT2P 18.7 221.6* 55.5 0 90 16.4 215.8 57.1 0 80 19.6 244.2 55.3 0 95 20.2 204.8* 54.0 0 96 103 37D832 107 VT2P 18.9 227.3* 54.1 0 94 16.3 218.1 56.0 0 94 19.4 263.7* 54.1 0 95 21.1 200.2* 52.0 0 94 19.4 263.7* 54.1 0 95 21.1 200.2* 52.0 0 94 19.4 263.7* 54.1 0 95 21.1 200.2* 52.0 0 94 19.4 263.7* 54.1 0 95 21.1 200.2* 52.0 0 94 19.4 263.7* 54.1 0 95 21.1 200.2* 52.0 0 94 19.4 263.7* 54.1 0 95 21.1 200.2* 52.0 0 94 19.4 263.7* 54.1 0 95 21.1 200.2* 52.0 0 94 19.4 263.7* 54.1 0 95 21.1 200.2* 52.0 0 94 19.4 263.7* 54.1 0 95 21.1 200.2* 52.0 0 94 19.4 263.7* 54.1 0 95 19.3 181.3 53.1 0 94 19.4 263.7* 54.1 0 95 19.5 52.9 0 89 15.0 20.9 247.3 58.7 0 100 20.9 279.6* 56.9 0 103 21.1 216.4 55.6 0 103 16.7 198.5 52.9 0 89 15.0 205.9 54.8 0 80 17.1 233.9* 51.7 0 90 17.8 130.1 50.6 0 82 19.5 16.7 3.1 0 9 2.7 7.1 1.4 0 8 2.5 7.1* 1.5 0 90 17.8 130.1 50.6 0 82 11.2 24.6 1.1 0 6 0.5 18.8 1.0 0 9 0.6 20.8* 0.9 0 6 0.8 19.7 0.7 0 13 11.2 24.6 1.1 0 6 0.5 18.8 1.0 0 9 16.7 20.0 103 17.1 200.1 17.9 10.0 10 10 17.1 200.1 17.1 200.1 17.1 200.1 17.1 10 10 10 10 10 10 10 10 10 10 10 10 10	RC5768-VT2P	107	VT2P	19.2	227.7 *	54.9	0	96 16.	7 241	.3 * 56	§.4 0	96	20.2	244.7	54.4	0	97	20.9	197.1 *	53.9	0	96
rids 37D832         107         VTZP         18.9         227.3         54.1         0         94         16.3         74         26.0         0         94         19.4         26.3.7         54.1         0         95         12.1         200.2         52.0         0         94           18.0         218.7         54.6         0         95         15.9         225.3         56.3         0         95         18.9         249.4         54.3         0         96         19.3         181.3         53.1         0         94           19.6         233.8         57.1         0         101         17.9         247.3         58.7         0         100         20.9         279.6         56.9         0         103         21.1         216.4         55.6         0         103         11.1         213.0.4         56.6         0         103         11.1         216.4         55.6         0         103         11.1         216.4         55.6         0         103         11.1         216.4         55.6         0         103         11.1         216.4         55.6         0         103         11.1         216.4         55.6         0         103	rids 36D260	106	VT2P	18.7	221.6 *	55.5	0	90 16.	4 215	6.8 57	7.1 0	80	19.6	244.2	55.3	0	95	20.2	204.8 *	54.0	0	96
18.0       218.7       54.6       0       95       15.9       243.3       0       95       18.9       249.4       54.3       0       96       19.3       181.3       53.1       0       94         19.6       233.8       57.1       0       101       17.9       247.3       58.7       0       100       20.9       279.6       56.9       0       103       21.1       216.4       55.6       0       103         16.7       198.5       52.9       0       89       15.0       205.9       54.8       0       80       17.1       233.9       51.7       0       90       17.8       130.1       50.6       0       82         9.6       16.7       3.1       0       9       2.7       7.1       1.4       0       8       2.5       7.1       1.7       0       91       17.8       130.1       50.6       0       82         1.2       24.6       1.1       0       9       2.7       7.1       1.4       0       8       2.5       7.1       0       9       9.2       1.1       0       11       1.2       24.6       1.1       0       9       0.6	rids 37D832	107	VT2P	18.9	227.3 *	54.1	0	94 16.	3 218	3.1 56	§.0 0	94	19.4	263.7 *	54.1	0	95	21.1	200.2 *	52.0	0	94
19.6       233.8       57.1       0       101       17.9       247.3       58.7       0       100       20.9       279.6       56.9       0       103       21.1       216.4       55.6       0       103         16.7       198.5       52.9       0       89       15.0       205.9       54.8       0       80       17.1       233.9       51.7       0       90       17.8       130.1       50.6       0       82         9.6       16.7       3.1       0       9       2.7       7.1       1.4       0       8       2.5       7.1*       1.5       0       5       3.6       9.2       1.1       0       1       1       0       1       1       1       0       1       1       0       1       1       1       0       1       1       1       0       1       1       1       0       1				18.0	218.7	54.6	0	95 15.	9 225	3 56	5.3 0	95	18.9	249.4 *	54.3	0	96	19.3	181.3	53.1	0	94
16.7       198.5       52.9       0       89       15.0       205.9       54.8       0       80       17.1       233.9*       51.7       0       90       17.8       130.1       50.6       0       82         9.6       16.7       3.1       0       9       2.7       7.1       1.4       0       8       2.5       7.1*       1.5       0       5       3.6       9.2       1.1       0       11       0       11       0       11       0       11       0       11       0       11       0       11       0       11       0       12       13.6       2.7       10       0       0.6       20.8       0.0       5       3.6       9.2       1.1       0       11       0       11       0       12       13 <td></td> <td></td> <td></td> <td>19.6</td> <td>233.8</td> <td>57.1</td> <td>0</td> <td>01 17.</td> <td>9 247</td> <td>.3 58</td> <td>3.7 0</td> <td>100</td> <td>20.9</td> <td>279.6 *</td> <td>56.9</td> <td>0</td> <td>103</td> <td>21.1</td> <td>216.4</td> <td>55.6</td> <td>0</td> <td>103</td>				19.6	233.8	57.1	0	01 17.	9 247	.3 58	3.7 0	100	20.9	279.6 *	56.9	0	103	21.1	216.4	55.6	0	103
9.6 16.7 3.1 0 9 2.7 7.1 1.4 0 8 2.5 7.1* 1.5 0 5 3.6 9.2 1.1 0 11 1.2 24.6 1.1 0 6 0.5 18.8 1.0 0 9 0.6 20.8* 0.9 0 6 0.8 19.7 0.7 0 13				16.7	198.5	52.9	0	39 15.	0 205	.9 52	1.8 0	80	17.1	233.9 *	51.7	0	90	17.8	130.1	50.6	0	82
1.2 24.6 1.1 0 6    0.5 18.8 1.0 0 9    0.6 20.8 * 0.9 0 6    0.8 19.7 0.7 0 13				9.6	16.7	3.1	0	9 2.7	7 7	.1 1	.4 0	8	2.5	7.1 *	1.5	0	5	3.6	9.2	1.1	0	11
				1.2	24.6	1.1	0	6 0.5	5 18	3.8	0.0	6	0.6	20.8 *	0.9	0	9	0.8	19.7	0.7	0	13

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

### TABLE 11

fable 1L.		BR	ANC	C, C	ASS (	& LEN	AW		INNO	TY GR	AIN	RIA	LS-	LATE	(108 I	Jay ar	nd Lá	ater)					ONE
2022				Late	- TRIA	L AVERA	JGE			Branc	:h - Lat∈				Ca	ss - Late	-			Lenaw	ree - Lai	ę	
BRAND / HYBRID	RM	TRAIT	<u>"</u> Н%	20 B	NA	Twt %	SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H20	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd
Ag Armour AA10848	108	5	20.	.1 20	0.7	54.0	0	97	17.5	193.2	55.6	0	97	22.3	227.3	51.7	0	97	20.5	181.6	54.6	0	98
Dairyland Seed DS-4878AM	108	AM	19.	.5 23	2.0	53.2	0	97	17.5	245.2 *	53.9	0	97	21.4	245.6	52.0	0	97	19.7	205.0	53.6	0	96
Dairyland Seed DS-4917AM	109	AM	20.	.0 23	2.2	54.3	0	95	18.0	236.9 *	55.6	0	95	22.5	243.6	52.9	0	97	19.4	215.9	54.3	0	92
Dairyland Seed DS-5095AM	110	AM	20.	.1 22	8.1	53.9	0	97	16.9	225.1	55.3	0	86	23.0	245.4	51.7	0	66	20.5	213.7	54.6	0	94
Dairyland Seed DS-5161Q	111	Ø	20.	.4 23	8.0 *	54.4	0	93	19.1	234.4	56.4	0	93	22.1	235.0	52.6	0	92	20.1	244.6 **	54.3	0	93
Dairyland Seed DS-5250AM	112	AM	19.	.6 23	3.0	53.7	0	96	17.3	255.7 *	55.1	0	98	22.0	242.1	51.6	0	97	19.7	201.3	54.4	0	94
Dairyland Seed DS-5279Q	112	Ø	20.	.5 22	6.6	53.9	0	97	18.6	250.9 *	55.2	0	97	22.4	243.6	52.3	0	98	20.5	185.4	54.1	0	98
Dyna-Gro Seed D48VC84	108	<b>VT2PRIE</b>	3 19.	.4 24	* 0'L	54.3	0	97	17.2	255.8 **	55.7	0	98	21.1	262.6 *	53.1	0	98	19.8	222.6	54.0	0	95
Dyna-Gro Seed D50VC09	110	<b>VT2PRIE</b>	3 19.	.4 22	6.9	53.0	0	94	17.0	240.0 *	55.1	0	66	21.9	233.8	51.0	0	96	19.3	207.0	52.9	0	86
Golden Harvest G08R52-3220	108	ZΛ	20.	.1 23	* 0.6	52.5	0	95	18.3	251.2 *	53.8	0	98	21.2	251.4 *	51.5	0	96	20.8	214.4	52.3	0	93
Golden Harvest G10L16-522A	110	D2	20.	.9 22	6.0	52.5	0	88	18.6	237.8 *	53.6	0	97	22.8	240.1	51.2	0	100	21.3	200.2	52.8	0	96
Golden Harvest G12S75-5122	112	5	22.	.3 22	6.6	53.0	0	66	18.5	232.8	54.7	0	97	26.3	243.1	50.9	0	66	22.3	204.0	53.3	0	101
Legacy Seeds LC594-21 VT2P	109	VT2P	19.	.4 24	8.4 **	55.1	0	66	16.8	252.3 *	56.8	0	97	20.9	272.5 **	53.7	0	101	20.4	220.6	54.8	0	100
M&W Seeds 43V43	113	VT2P	20.	.5 23	6.7	53.8	0	93	17.8	229.1	54.7	0	94	22.3	261.8 *	52.8	0	92	21.5	219.2	54.1	0	92
M&W Seeds 43V69	111	TRERIB	3 20.	.2 22	7.3	53.8	0	93	17.6	245.9 *	55.3	0	91	22.8	236.3	52.4	0	95	20.4	199.6	53.9	0	94
NK Seeds NK0877-3220	108	ZN	19.	.9 23	3.1	52.2	0	97	17.9	242.6 *	53.5	0	98	21.6	235.6	50.7	0	98	20.2	221.2	52.5	0	96
NK Seeds NK1082-5222A	110	D2	20.	.5 23	2.9	52.8	0	96	18.7	252.6 *	54.4	0	100	22.2	241.7	51.2	0	98	20.7	204.4	52.8	0	92
Renk RK700SSTX	108	STX	18.	.5 22	2.9	53.2	0	97	16.0	212.8	54.8	0	97	21.6	235.7	51.3	0	97	18.0	220.2	53.6	0	97
Renk RK774VT2P	108	VT2P	18.	.9 23	5.9	54.1	0	97	16.5	243.3 *	55.4	0	86	20.9	255.6 *	52.5	0	94	19.2	208.9	54.3	0	66
Renk RK801SSTX	110	STX	19.	.5 24	* 9.5	55.6	0	97	17.8	243.4 *	57.2	0	97	22.1	266.3 *	53.9	0	66	18.8	227.2 *	55.7	0	96
Renk RK805VT2P	110	VT2P	19.	.4 22	2.2	54.0	0	92	16.5	213.1	56.3	0	96	21.4	240.7	51.8	0	98	20.3	212.9	53.9	0	83
Renk RK821SSTX	111	STX	19.	.3 23	0.0	55.0	0	95	17.2	233.8	56.6	0	97	21.5	253.5 *	53.4	0	94	19.2	202.6	55.0	0	94
Renk RK826VT2P	111	VT2P	20.	.1 22	0.7	54.0	0	92	17.4	224.4	55.6	0	10	22.5	236.5	51.8	0	94	20.3	201.2	54.4	0	82
Rob-See-Co D10-16-VT2P	110	VT2P	19.	.1 22	4.6	55.2	0	97	16.5	234.4	56.8	0	86	20.7	238.6	53.6	0	97	20.1	200.7	55.1	0	96
Rob-See-Co RC6038-DV	108	D2	21.	.0 21	9.7	52.5	0	97	19.0	237.8 *	53.6	0	98	22.7	222.7	51.3	0	96	21.3	198.5	52.5	0	97
Rob-See-Co RC6170-DV	111	D1	20.	.2 20	13.4	54.0	0	66	17.3	220.6	55.9	0	66	22.3	210.5	51.6	0	98	21.0	179.0	54.6	0	66
Specialty Hybrids 38D871	108	VT2P	19.	.3 23	1.5	53.4	0	94	16.9	231.9	55.3	0	94	21.4	246.5	51.7	0	96	19.8	216.3	53.1	0	93
Specialty Hybrids 39G569	109	VT2P	20.	.0 22	5.8	52.0	0	93	17.4	233.0	52.7	0	66	21.7	255.8 *	50.9	0	96	20.9	188.6	52.5	0	84
Specialty Hybrids 41A392	111	STX	19.	.1 22	9.7	55.6	0	93	16.7	226.3	57.6	0	97	21.8	251.7 *	53.8	0	66	18.9	211.1	55.3	0	83
AVERAGE			19.	.9 22	9.2	53.7	0	96	17.5	235.7	55.3	0	67	22.0	244.0	52.1	0	97	20.2	207.9	53.9	0	93
HIGHEST			22.	.3 24	8.4	55.6	0	66	19.1	255.8	57.6	0	100	26.3	272.5	53.9	0	101	22.3	244.6	55.7	0	101
LOWEST			18.	.5 20	10.7	52.0	0	92	16.0	193.2	52.7	0	91	20.7	210.5	50.7	0	92	18.0	179.0	52.3	0	82
CV (%)			З.	4	7.5	1.2	0	7	3.5	7.0	1.2	0	с	3.3	7.9	1.3	0	4	3.3	7.5	1.1	0	12
LSD (5%)			0	5 1	1.6	0.4	0	5	0.7	19.3	0.8	0	4	0.9	22.8	0.8	0	5	0.8	18.2	0.7	0	13

\*\* Highest Yielding Hybrid

LSD (5%)

\* Not Significantly Different from Highest Yielding Hybrid

2-Year Averages Available in online version at https://www.canr.msu.edu/varietytrials

### **ZONE 2**

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

2022			ű	arly - TRIA	L AVER	AGE			Ottawa	- Early		_		Inghan	ı - Early				Saginav	- Early		
BRAND / HYBRID	RM T	<b>RAIT</b>	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt .	°SL	%Sd	6H2O	BU/A	Twt 。	°SL	%Sd %	6H2O	BU/A	Twt %	°SL	Sd
Dairyland Seed DS-3550Q	95	ø	15.6	178.0	54.0	0	100	18.3	199.0	54.5	0	101	12.0	113.6	51.6	0	100	16.5 2	221.4	55.8	0	98
Dairyland Seed DS-3601AM	96	AM	15.4	189.8	55.9	0	97	16.2	206.1 *	56.9	0	98	14.4	145.0	54.1	0	66	15.7 2	218.4	56.7	0	94
Dairyland Seed DS-3727AM	97	AM	16.9	184.3	56.5	0	66	16.7	189.7	57.4	0	66	16.3	150.0	54.4	0	66	17.7 2	213.3	57.8	0	98
Dairyland Seed DS-3900AM	66	AM	17.4	201.8	55.8	0	8	17.0	212.0 *	56.7	0	96	17.4	178.4	53.6	0	98	17.7 2	215.1	57.3	0	93
Dairyland Seed DS-3959AM	66	AM	15.9	195.5	54.7	0	66	17.1	209.9 *	55.8	0	66	13.4	159.9	52.5	0	103	17.3 2	216.6	55.7	0	94
Dairyland Seed DS-4878AM	108	AM	20.4	228.6 ***	53.7	0	8	19.9	222.7 *	53.8	0	66	21.7	247.1 ***	53.5	0	97	19.7	216.2	53.8	0	91
Dyna-Gro Seed D34VC93	94 VT	-2PRIB	14.3	175.6	54.8	0	88	16.1	191.0	56.3	0	97	11.0	104.1	51.1	0	100	15.9 2	231.6 *	57.1	0	97
Dyna-Gro Seed D36VC66	DV 96	<sup>-</sup> 2PRIB	16.2	185.3	55.8	0	97	17.1	197.8	57.4	0	97	14.9	128.9	52.4	0	66	16.7 2	229.2 *	57.5	0	96
Dyna-Gro Seed D40VC41	100 VT	<sup>-</sup> 2PRIB	16.5	207.4	55.1	0	97	16.1	206.8 *	55.6	0	100	16.4	180.5	53.1	0	97	17.0 2	235.0 *	56.7	0	95
Golden Harvest G00A97-3120A	100	ΒZ	17.1	199.3	56.3	0	96	16.5	180.9	56.3	0	100	17.6	205.3	55.3	0	97	17.2 2	211.7	57.1	0	90
Golden Harvest G95D32-3220	95	ZV	15.4	173.2	55.9	0	94	17.0	190.1	57.2	0	93	12.3	113.3	52.2	0	98	17.0 2	216.2	58.3	0	91
Golden Harvest G97A36-3220	97	ZV	17.4	198.0	56.6	0	66	18.2	201.5	57.5	0	101	16.7	158.0	54.9	0	66	17.3 2	234.4 *	57.4	0	98
Golden Harvest G99A37-5222	66	D2	16.5	197.2	54.8	0	66	16.3	194.7	55.0	0	100	15.9	196.8	54.1	0	66	17.4 2	200.0	55.2	0	97
Legacy Seeds LC474-20 TRE	97 TI	RERIB	16.6	221.6 **	55.2	0	100	16.0	204.0	55.1	0	100	17.0	234.9 **	54.4	0	103	16.9 2	225.9	56.0	0	98
Legacy Seeds LC493-21 5122	66	D1	16.8	192.8	55.5	0	97	18.4	194.1	56.1	0	97	14.0	168.5	54.4	0	66	18.1 2	215.8	56.1	0	96
Legacy Seeds LC511-21 SSX	101 S	TXRIB	18.3	212.7	55.5	0	98	18.1	194.2	56.2	0	98	18.8	224.7 *	53.3	0	97	18.0 2	219.2	57.0	0	98
Legend Seeds 4397 TRE RIB	97 TI	RERIB	16.3	220.1 *	55.3	0	100	15.9	206.8 *	56.0	0	86	15.9	236.8 *	53.8	0	101	17.0 2	216.8	56.1	0	00
Legend Seeds 5800 VT2P RIB	100	/T2P	15.7	179.9	55.3	0	98	16.7	183.3	56.2	0	86	13.9	127.1	51.8	0	98	16.5 2	229.2 *	57.9	0	97
Legend Seeds 9200 VT2P RIB	100	/T2P	16.1	190.5	55.5	0	91	17.3	199.3	56.6	0	92	13.0	151.7	53.3	0	94	17.9 2	220.5	56.7	0	35
M&W Seeds 45T56	100 VT	-2PRIB	15.8	200.8	55.6	0	95	15.2	209.6 *	56.0	0	98	15.5	164.8	54.1	0	95	16.9 2	228.2 *	56.9	0	92
M&W Seeds 46T29	DV 66	-2PRIB	14.8	184.9	56.1	0	80	16.5	202.4	57.0	0	100	11.7	120.3	53.6	0	66	16.2 2	231.9 *	57.8	0	97
M&W Seeds MW97A VT2P	DV 70	<sup>-</sup> 2PRIB	14.6	191.1	54.6	0	98	16.2	204.0	56.0	0	66	11.7	135.9	51.0	0	97	16.0	233.3 *	56.8	0	97
M&W Seeds MW98A TRE	98 TI	RERIB	17.1	215.8	55.2	0	95	16.2	210.5 *	56.1	0	94	17.9	223.8 *	53.9	0	98	17.1	213.2	55.8	0	92
NK Seeds NK0007-3120	100	ΒZ	17.3	207.4	55.6	0	96	16.9	191.1	55.9	0	66	17.7	202.0	53.4	0	97	17.2 2	229.2 *	57.4	0	93
NK Seeds NK9231-3120	92	ΒZ	14.7	177.3	54.7	0	98	16.3	213.4 *	55.4	0	66	11.8	112.8	52.5	0	98	16.0	205.8	56.1	0	97
NK Seeds NK9874-3220	98	٧Z	17.1	188.6	56.2	0	98	17.7	181.1	56.9	0	66	16.1	170.4	54.9	0	66	17.6 2	214.4	56.7	0	97
NK Seeds NK9922-5222	66	D2	16.6	196.2	54.8	0	98	16.1	174.3	55.2	0	100	16.6	206.6	53.6	0	100	17.1	207.7	55.6	0	95
NK Seeds NK9991-5122	66	5	17.5	191.5	55.4	0	97	17.6	178.9	55.8	0	98	16.8	170.6	54.5	0	66	18.2	224.9	56.0	0	95
Renk RK600VT2P	100	/T2P	16.0	217.1	55.2	0	98	16.8	224.1 **	56.5	0	100	14.2	188.9	52.3	0	98	16.9	238.3 *	56.9	0	97
Renk RK609VT2P	101	/T2P	16.3	201.4	55.6	0	95	15.8	196.6	56.4	0	96	15.2	179.8	54.0	0	98	17.9 2	227.7 *	56.5	0	92
Rob-See-Co D98-43-TRE	98	TRE	16.8	214.4	55.1	0	86	15.6	206.6 *	55.0	0	98	17.7	216.1	54.5	0	86	17.0	220.5	56.0	0	66
Rob-See-Co D99-08-VT2P	66	/T2P	15.2	195.6	55.2	0	6	16.4	192.8	56.3	0	91	11.9	154.0	52.5	0	06	17.2 2	239.9 **	56.8	0	06
Rob-See-Co RC4518-VT2P	94	/T2P	14.6	182.7	55.3	0	97	15.9	210.6 *	56.2	0	96	11.7	102.3	52.8	0	97	16.2	235.2 *	56.9	0	98
Rob-See-Co RC5134-PCE	101	ΡW	17.8	217.0	53.9	0	66	17.8	210.4 *	53.5	0	102	17.9	213.5	54.3	0	98	17.8 2	226.9	53.7	0	98
Specialty Hybrids 27D728	97	/T2P	15.2	189.5	55.9	0	100	16.2	197.7	56.1	0	66	12.8	148.4	53.8	0	101	16.5	222.3	57.8	0	66
Specialty Hybrids 30DT192	100	TRE	16.2	218.2	55.5	0	96	16.6	212.1 *	56.6	0	97	14.8	212.6	53.0	0	100	17.2 2	230.1 *	57.0	0	92
AVERAGE			16.3	197.8	55.3	0	97	16.8	200.0	56.0	0	98	15.1	170.8	53.4	0	98	17.1 2	222.7	56.6	0	95
HIGHEST			20.4	228.6	56.6	0	100	19.9	224.1	57.5	0	102	21.7	247.1	55.3	0	103	19.7	239.9	58.3	0	00
LOWEST			14.3	173.2	53.7	0	6	15.2	174.3	53.5	0	91	11.0	102.3	51.0	0	06	15.7 2	200.0	53.7	0	85
CV (%)			5.4	8.3	1.7	0	4	3.5	7.8	1.3	0	4	9.2	12.1	2.6	0	с	3.3	4.8	1.0	0	4
LSD (5%)		_	0.2	3.2	0.2	0	<del>.</del>	0.7	18.3	0.8	0	4	1.6	24.2	1.6	0	4	0.7	12.4	0.6	0	5

\*\*\* Highest yielding hybrid, however RM is out of range \*\* Highest Yielding Hybrid \* Not Significantly Different from Highest Yielding Hybrid

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### INGHAM OTTAWA & SAGINAW COLINTY GRAIN TRIALS - LATE (102 Dav and Later)

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2022			Ľ	ate - TRI/	AL AVE	RAGE			Ottawa -	Late			lngh	am - Lat	e			Sagina	w - Lat	đ	
BRAND / HYBRID	RM	TRAIT	%H20	BU/A	Twt	%SL %	Sd %F	120 F	BU/A 1	wt %	SK %S	d %H2C	BU/A	Twt	%SL	%Sd	%H20	BU/A	Twt	%SL	%Sd
Ag Armour AA10253	102	PWE	18.3	206.3	53.5	0	97 17	7.3 19	6.5 5	4.7 (	98	19.4	211.9	51.6	0	100	18.2	210.6	54.3	0	94
Dairyland Seed DS-4014Q	100	ø	15.4	169.4	52.9	0	98 17	7.2 18	36.9 5	6.3	66	11.5	104.0	46.9	0	86	17.5	217.3 *	55.6	0	98
Dairyland Seed DS-4018AM	101	AM	16.4	189.7	54.9	0	94 16	5.1 18	31.5 5	7.4 0	94	14.7	181.2	51.1	0	96	18.4	206.4	56.1	0	94
Dairyland Seed DS-4310Q	103	Ø	17.7	209.5	55.1	0	98	7.7 20	8.5 * 5	6.6 (	66	17.4	192.8	52.0	0	66	18.0	227.2 *	56.7	0	95
Dairyland Seed DS-4510Q	105	ø	17.1	203.1	53.0	0	99 17	7.4 21	2.0 * 5	5.9 (	66	15.4	188.5	48.2	0	66	18.6	208.8	54.9	0	98
Dyna-Gro Seed D44DC73	104	<b>VT2PRIB</b>	16.4	212.6	53.2	0	96 1	5.3 19	1.4 5	5.4 (	96	15.2	212.8	49.9	0	95	18.5	233.6 **	54.4	0	96
Dyna-Gro Seed D45TC55	105	TRERIB	18.4	226.5	54.4	0	98 17	7.6 22	22.7 ** 5	6.0	98	18.8	229.7	52.6	0	86	18.8	224.0 *	54.5	0	97
Golden Harvest G02K39-5122	102	D1	15.9	168.9	52.1	0	95 18	3.1 18	34.6 5	5.2 (	06	11.8	117.7	47.0	0	97	18.0	204.5	54.2	0	98
Legacy Seeds LC-5217 VT2P	102	VT2PRIB	15.7	192.3	53.5	0	96	7.5 19	5.3 5	5.7 (	92	12.5	172.3	49.5	0	66	17.2	209.3	55.4	0	66
Legacy Seeds LC525-21 PW	102	ΡW	17.2	201.1	54.1	0	98	7.6 20	0.4 5	4.4	66	17.2	195.8	53.0	0	86	17.0	207.2	54.8	0	97
Legacy Seeds LC554-21 DGVT2P	104	VT2P	16.2	211.6	53.5	0	104 1	5.8 21	2.5 * 5	5.1 0	101	15.0	205.7	50.5	0	111	17.9	216.6 *	54.9	0	101
Legacy Seeds LC564-20 PW	106	ΡW	18.4	200.3	52.4	0	96	7.8 19	7.4 5	3.4 0	94	18.8	218.1	51.1	0	100	18.6	185.3	52.9	0	95
M&W Seeds 44V42	107	<b>VT2PRIB</b>	18.6	207.6	56.5	0	96	7.7 18	35.9 5	9.0	66	19.4	226.3	53.6	0	97	18.8	210.7	56.8	0	94
M&W Seeds 44V74	105	D2	16.3	181.4	52.4	0	94 17	7.7 17	1.9 5	4.3	96	13.1	186.9	48.6	0	94	18.2	185.5	54.3	0	94
M&W Seeds 45V21	103	VT2PRIB	16.7	212.4	55.1	0	97 1(	<u>5.6</u> 20	2.5 5	6.9	66 (	15.7	219.8	52.5	0	98	17.9	214.7 *	56.0	0	95
M&W Seeds MW103A VT2P	103	<b>VT2PRIB</b>	17.9	220.6	56.4	0	96 1.	7.2 2(	9.3 * 5	7.4 0	96	19.0	235.1	54.6	0	95	17.5	217.2 *	57.2	0	97
Renk RK615SSTX	102	STX	18.0	204.0	55.0	0	97 17	7.2 19	96.0 5	6.7 (	95	18.6	202.5	52.4	0	66	18.3	213.7 *	55.8	0	96
Renk RK625DGVT2P	104	VT2P	15.5	208.5	53.4	0	97 16	5.1 20	0.8 5	4.4 (	10 07	14.9	204.5	50.5	0	96	15.7	220.3 *	55.4	0	66
Renk RK642VT2P	103	VT2P	15.5	193.4	54.4	0	98 17	7.1 19	37.8 5	6.6 (	10 07	12.5	176.2	50.3	0	101	16.9	206.2	56.3	0	95
Renk RK710DGVT2P	107	VT2P	19.5	223.7	54.8	0	96 18	3.2 21	9.0 * 5	6.4 (	86	21.4	225.8	52.9	0	96	19.0	226.3 *	55.1	0	95
Renk RK715SSTX	105	STX	18.3	222.0	54.0	0	96 18	3.4 19	8.6 5	5.2 (	96	18.0	247.6 *	52.0	0	93	18.6	219.7 *	54.7	0	100
Specialty Hybrids 34D651	104	VT2P	18.1	204.7	54.9	0	95 17	7.6 20	0.20	6.1 0	92	19.9	203.3	52.1	0	66	16.9	208.7	56.4	0	94
Specialty Hybrids 37D832	107	VT2P	20.1	233.3 **	53.5	0	94 18	3.2 20	7.6 * 5	6.3 (	92	22.1	258.6 *	* 49.9	0	97	20.1	233.6 **	54.3	0	93
Specialty Hybrids 38D871	108	VT2P	20.1	222.9	53.7	0	97 18	3.5 19	9.8 5	4.9 (	98	22.2	254.2 *	52.3	0	86	19.6	214.7 *	54.0	0	94
AVERAGE			17.4	205.2	54.0	0	97 17	7.3 19	9.3 5	5.8 (	96	16.8	203.0	51.0	0	86	18.1	213.4	55.2	0	96
HIGHEST			20.1	233.3	56.5	0	18	3.5 22	5.7 5	9.0	101	22.2	258.6	54.6	0	111	20.1	233.6	57.2	0	101
LOWEST			15.4	168.9	52.1	0	94 15	5.3 17	1.9 5	3.4 (	90	11.5	104.0	46.9	0	93	15.7	185.3	52.9	0	93
CV (%)			5.7	8.3	2.0	0	5	<del>.</del> .	8.6	1.2	9	8.4	7.9	3.1	0	9	3.6	8.5	1.2	0	ო
LSD (5%)			0.2	4.1	0.3	0	-	ø.	20.1	0.8	2	1.7	18.8	1.9	0	7	0.8	21.3	0.8	0	4

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

2-Year Averages Available in online version at https://www.canr.msu.edu/varietytrials

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

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$\begin{array}{c} 20.6\\ 19.8\\ 20.2\\ 22.5\\ 22.5\\ 20.5\\ 20.5\\ 20.5\\ 20.4\\ 19.6\\ 20.5\\ 20.4\\ 20.5\\ 20.4\\ 20.5\\ 20.5\\ 20.5\\ 20.4\\ 20.5\\$
19.8 19.0 20.2 20.5 20.5 20.5 20.5 20.5 20.5 20
19.0 20.2 20.2 20.5 20.5 20.5 20.5 20.5 20
202 23.2 22.5 20.6 20.5 20.5 20.5 20.1 20.4 20.8 20.8 20.8 20.8 20.6 20.7 20.8 20.8 20.8 20.6 20.6 20.6 20.6 20.6 20.6 20.6 20.6
21.5 22.5 22.5 20.1 20.5 20.5 20.5 20.4 20.4 20.4 20.4 20.4 20.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5
22.5 20.16 20.15 20.5 20.5 20.5 20.1 20.4 20.4 20.4 20.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5
20.6 20.1 20.5 22.2 20.5 20.1 20.4 20.4 20.4 20.4 20.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5
20.1 20.5 22.2 20.5 20.1 20.1 20.1 20.4 20.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5
20.5 22.2 20.5 20.5 20.1 20.1 20.4 20.4 20.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5
22.2 20.5 20.5 20.5 20.1 20.1 20.6 20.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5
20.5 19.6 21.2 20.8 20.4 20.4 19.7 20.5 20.5
19.6 21.2 20.1 20.8 20.8 20.4 20.5 20.5 20.5 20.7 20.7
21.2 20.1 20.8 20.4 20.4 20.5 20.5 20.5
20.1 20.8 21.7 21.7 20.4 19.7 20.5 20.5
20.8 21.7 20.4 19.7 20.5 20.5
21.7 20.4 19.7 20.5 20.5 20.5
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21.1
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23.2
19.0
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\*\* Highest Yielding Hybrid \* Not Significantly Different from Highest Yielding Hybrid

2-Year Averages Available in online version at https://www.canr.msu.edu/varietytrials

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

### **ZONE 3**

2022				ate - TRIA	IL AVE	RAGE			Huro	n - Late			Mase	on - Lat	œ			Montcal	m - Lat	۵ ۵	
BRAND / HYBRID	RM	TRAIT	%H2O	BU/A	Twt	%SL	%Sd	%H2O	<b>BU/A</b>	Twt %	S% JS%	H20	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd
Dairyland Seed DS-3900AM	66	AM	22.6	176.4 *	49.5	0	85					22.5	182.9 *	47.5	0	75	22.7	169.8	51.5	0	94
Dairyland Seed DS-3959AM	66	AM	23.1	170.9 *	46.6	0	93					22.9	180.4 *	42.4	0	88	23.2	161.3	50.8	0	66
Dairyland Seed DS-4014Q	100	Ø	25.9	168.8	49.3	0	88					25.9	173.4	45.7	0	81	25.9	164.3	52.9	0	94
Dairyland Seed DS-4018AM	101	AM	24.6	165.5	48.7	0	81					25.7	168.8	47.2	0	68	23.5	162.2	50.2	0	93
Dyna-Gro Seed D40VC41	100	<b>VT2PRIB</b>	24.2	165.6	49.2	0	87					24.7	148.0	48.0	0	75	23.6	183.1 *	50.4	0	100
Dyna-Gro Seed D41SS60	102	STXRIB	22.8	172.4 *	50.0	0	88					22.7	172.9	48.9	0	77	22.9	171.9	51.1	0	66
Golden Harvest G00A97-3120A	100	ΒZ	23.2	170.3 *	49.3	0	84					22.6	170.0	48.6	0	74	23.9	170.7	50.1	0	95
Golden Harvest G02K39-5122	102	D1	25.3	152.6	47.2	0	84					26.2	142.9	45.3	0	70	24.4	162.3	49.2	0	98
Golden Harvest G99A37-5222	66	D2	25.2	162.0	47.1	0	88					26.2	150.5	45.4	0	77	24.2	173.5 *	48.9	0	66
Legacy Seeds LC-4248 VT2P	100	VT2PRIB	23.8	174.4 *	52.6	0	6					24.1	167.0	55.0	0	80	23.6	181.8 *	50.2	0	66
Legacy Seeds LC493-21 5122	66	D1	23.0	183.4 **	52.5	0	82					22.5	193.3 *	* 53.5	0	66	23.6	173.6 *	51.5	0	66
Legacy Seeds LC511-21 SSX	101	STXRIB	23.9	160.8	46.4	0	92					24.7	150.1	42.5	0	83	23.1	171.5	50.3	0	100
Legacy Seeds LC-5217 VT2P	102	VT2PRIB	22.8	177.3 *	50.5	0	86					22.6	178.0 *	50.9	0	74	23.1	176.6 *	50.1	0	98
Legacy Seeds LC525-21 PW	102	ΡW	28.8	165.2	45.9	0	83					29.7	169.6	45.4	0	69	27.9	160.7	46.3	0	98
M&W Seeds 45T56	100	<b>VT2PRIB</b>	24.4	183.3 *	51.4	0	83					25.1	185.4 *	53.2	0	69	23.8	181.2 *	49.7	0	96
M&W Seeds 45V21	103	<b>VT2PRIB</b>	25.5	165.6	47.7	0	89					25.8	160.4	46.6	0	81	25.2	170.9	48.8	0	97
M&W Seeds 46T29	66	VT2PRIB	21.8	181.3 *	50.2	0	89					22.2	191.3 *	49.0	0	82	21.5	171.4	51.3	0	97
M&W Seeds MW103A VT2P	103	VT2PRIB	23.6	182.5 *	50.1	0	86					23.4	179.6 *	49.6	0	76	23.9	185.5 *	50.6	0	95
M&W Seeds MW98A TRE	98	TRERIB	22.4	168.2	48.9	0	84					22.1	150.4	47.2	0	71	22.7	185.9 **	50.6	0	98
NK Seeds NK0007-3120	100	ΒZ	23.5	166.3	49.8	0	82					23.6	164.0	48.4	0	70	23.5	168.5	51.3	0	94
NK Seeds NK9874-3220	98	ZΛ	23.6	179.6 *	54.7	0	84					23.7	176.0 *	57.1	0	71	23.6	183.2 *	52.4	0	97
NK Seeds NK9922-5222	66	D2	24.8	168.7	47.1	0	91					24.7	162.2	45.8	0	81	24.9	175.1 *	48.5	0	101
Renk RK579DGVT2P	66	VT2P	22.6	176.5 *	50.1	0	79					22.3	180.3 *	49.1	0	60	22.9	172.7 *	51.1	0	66
Renk RK590VT2P	98	VT2P	22.9	167.4	49.4	0	75					22.6	157.3	48.0	0	51	23.2	177.6 *	50.7	0	66
Rob-See-Co D98-43-TRE	98	TRE	22.3	164.2	48.5	0	84					22.0	163.6	47.2	0	72	22.5	164.8	49.8	0	96
Seedway SW 0030VT	100	VT2P	22.9	181.8 *	49.8	0	96					23.3	183.0 *	47.7	0	90	22.4	180.7 *	51.9	0	101
AVERAGE			23.8	171.2	49.3	0	86					24.0	169.3	48.3	0	74	23.7	173.1	50.4	0	97
HIGHEST			28.8	183.4	54.7	0	96					29.7	193.3	57.1	0	6	27.9	185.9	52.9	0	101
LOWEST			21.8	152.6	45.9	0	75					22.0	142.9	42.4	0	51	21.5	160.7	46.3	0	93
CV (%)			5.4	9.6	8.9	0	22					6.8	9.1	11.7	0	28	2.8	6.8	2.9	0	ო
LSD (5%)			1.1	13.6	3.6	0	16					1.9	18.2	6.6	0	24	0.8	13.9	1.7	0	e

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

TABLE 4E.	IOS	CO, 0	SCE(	SLA &	PRES	SOUE	E ISL	E COI	) VTV (	GRAI	V TR	IALS	- EAF	SUY (85	Day	and	Ear	lier)		7	ONE
2022				TRIAL	AVERA	щ			losco	- Early				Osceol	a - Earl	Y		Ľ	resque la	sle - Early	
BRAND / HYBRID	RM	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
Dairyland Seed DS-2080AM	80	AM	17.9	139.6	54.8	0	95	19.0	161.3	55.4	0	95	16.7	118.0	54.2	0	95				
Dairyland Seed DS-2505Q	85	Ø	18.9	153.9	53.3	0	98	21.2	176.7	53.1	0	95	16.7	131.0	53.5	0	100				
Dairyland Seed DS-2531AM	85	AM	19.2	154.8	51.8	0	88	21.8	193.4	51.7	0	87	16.6	116.3	52.0	0	06				
Dairyland Seed DS-2919AM	89	AM	20.5	164.9	53.1	0	98	23.6	208.5 **	52.8	0	98	17.4	121.3	53.5	0	66				
Golden Harvest G87A53-3220	87	ZΛ	19.3	147.6	53.3	0	82	21.5	143.9	53.2	0	83	17.2	151.3 *	53.4	0	81				
Legacy Seeds LC334-21 VT2P	83	VT2P	18.2	156.3	54.2	0	94	20.2	184.9	53.1	0	95	16.2	127.8	55.4	0	93				
Legacy Seeds LC354-20 3110	85	γ	19.7	147.5	53.7	0	96	21.7	155.7	52.6	0	97	17.8	139.4	54.8	0	96				
Renk RK297VT2P	88	VT2P	20.3	178.3 **	53.1	0	98	23.7	204.2 *	51.1	0	97	17.0	152.5 **	55.2	0	98				
AVERAGE			19.3	155.4	53.4	0	94	21.6	178.6	52.8	0	93	16.9	132.2	54.0	0	94				
HIGHEST			20.5	178.3	54.8	0	86	23.7	208.5	55.4	0	98	17.8	152.5	55.4	0	100				
LOWEST			17.9	139.6	51.8	0	82	19.0	143.9	51.1	0	83	16.2	116.3	52.0	0	81				
CV (%)			4.1	6.4	1.6	0	4	4.2	5.7	1.0	0	4	3.9	7.3	2.0	0	ę				
LSD (5%)		_	0.7	8.3	0.7	0	с	1.1	12.4	0.6	0	5	0.8	11.7	1.3	0	4				

TABLE 4L.	Ξ	DSCO,	OSCE	OLA 8	, PRE	SQUE	E ISL	E CO	UNTY	GRAII	N TR	ALS	- LAT	.E (90	Day a	nd L	ater)				ZONI	111
2022				TRIAL	AVERA	Ц	_		losco	- Late				Osceo	la - Late			Pre	saque la	sle - La	fe	
<b>BRAND / HYBRID</b>	RM	TRAIT	%H20	BU/A	Twt	%SL 0	%Sd	6H2O	BU/A	Twt °	% <b>S</b>	% Sd %	H2O	BU/A	Twt %	SL %	Sd %	H20 E	3U/A	Twt %	SK %S	Sq
Dairyland Seed DS-3022AM	60	AM	19.4	159.0	53.6	13	93	23.0	202.6	52.4	0	94	15.9	116.5	55.7	0	92 1	9.2 15	7.8 *	52.6	66 66	3
Dairyland Seed DS-3162Q	91	Ø	19.0	167.0 *	51.3	5	95	22.4	192.6	49.6	0	86	16.1	44.4 *	53.7	0	92	8.6 164	.1 ** 50	.5 15	99	Ь
Dairyland Seed DS-3203AM	92	AM	21.3	163.2	52.1	2	95	24.7	213.2 *	50.5	0	66	17.5 1	19.5	54.6	0	94 2	1.8 157	* 0.	1.2 5	6	e
Uyna-Gro Seed U31VC23	91	<b>VT2PRIB</b>	20.1	153.4	53.2	4	92	24.3	189.8	52.3	0	33	15.1 1	21.9	55.3	0	91 2	0.8 148	9.0	1.9	6	
Uyila-Gio Seeu Do4 VO30	94	VT2PRIB	21.6	155.1	52.0	11	95	26.9	196.6	51.3	0	94	15.8 1	19.2	53.8	0	95 2	2.0 149	.4	1.0 32	99	Ь
Dyna-Gro Seed D36VC66	96	VT2PRIB	21.8	166.5 *	52.1	8	98	27.3 2	220.3 ** E	50.2	0	86	6.2 1	18.1	54.9	0	<u> 39</u> 2	1.9 161	.0 * 5	1.1 24	8	œ
Golden Harvest G91V51-5222A	91	D2	21.3	165.9 *	51.8	-	96	24.5	207.9 *	50.3	0	95	17.4 1	30.4	53.8	0	97 2	2.2 159	.4 * 5	1.3 3	99	Ь
Legacy Seeds LC414-21 VT2P	91	VT2P	20.6	158.3	52.7	2	95	24.3	193.0	52.0	0	94	l6.4 1	25.9	54.4	0	95 2	1.2 156	0.0	1.7 7	99	Ь
M&W Seeds MW97A VT2P	67	VT2PRIB	21.2	158.6	51.3	ø	97	26.5	191.9	50.3	0	66	15.7 1	28.8	53.4	0	97 2	1.5 155	0.0	0.3 24	99	Ь
Renk RK400VT2P	93	VT2P	19.8	172.5 **	53.7	9	95	23.7	214.3 *	52.1	0	95	15.8 1	40.6 *	56.2	0	95	9.9 162	.7 * 5	2.7 17	99	Ь
Kenk KK444VIZP	94	VT2P	22.4	165.1 *	51.9	8	91	27.0	191.9	50.8	0	94	17.1 1	47.0 ** !	54.2	0	36 2	3.2 156	.4 * 5	0.9 24	. 92	$\sim$
AVERAGE			20.8	162.2	52.3	9	95	25.0 2	201.3	51.1	0	96	6.3 1	28.4	54.5	0	94 2	1.1 157	0.	51.4 1	8 97	4
HIGHEST			22.4	172.5	53.7	13	98	27.3 2	220.3	52.4	0	66	17.5 1	47.0	56.2	0	39 2	3.2 164		52.7 3	6 6	œ
LOWEST			19.0	153.4	51.3	-	91	22.4	8.68	49.6	0	93	15.1 1	16.5	53.4	0	36	8.6 148	9.	50.3	60	$\sim$
CV (%)			7.0	7.5	2.1	86	5	4.1	5.7	1.8	0	4	4.7	10.	0 1.2	0	9	0.	7.5	2.1 8	6 5	
LSD (5%)			1.0	7.9	0.7	1	ო	1.2	13.7	1.1	0	5	0.9	15.4	0.8	0	2	0	7.9	0.7 1	1 3	

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### ZONE 4

LY (101 Day and Earlier)
EAR
<b>RAIN TRIALS</b>
<b>NTIONAL G</b>
Y CONVEI
W COUNT
<b>&amp; SAGINA</b>
ONTCALM 8
INGHAM, M
TABLE 5E.

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	0	0	0	0	0	0	0	0	0	0	0
56.5 58.6 58.6	56.9	58.0	57.1	57.7	58.6	56.3	57.5	58.6	56.3	0.6	0.4
215.4 220.6	225.2	227.7 *	231.3 *	223.8	220.4	230.7 *	226.3	239.6	215.4	4.6	12.5
15.5 16.3	16.4	15.9	16.4	15.7	16.5	17.1	16.3	17.1	15.5	2.2	0.4
98 97	98	95	93	92	95	97	96	100	92	4	5
000	0	0	0	0	0	0	0	0	0	0	0
50.6 52.0	51.5	51.5	51.4	52.5	52.6	50.3	51.6	52.6	50.3	1.4	0.8
166.9 180.6 *	187.5 *	184.6 *	181.6 *	173.6	190.4 *	180.0 *	182.6	191.2	166.9	6.8	15.0
22.6 23.0	22.9	22.9	22.9	21.9	23.0	23.5	22.8	23.5	21.9	3.6	1.0
97 93	92	86	94	92	97	94	95	66	92	4	5
000	0	0	0	0	0	0	0	0	0	0	0
54.5 51.5	50.0	51.7	51.9	54.2	50.8	51.3	51.5	54.5	49.2	2.4	1.5
173.8 * 159.6 *	142.7	151.0	170.8 *	170.9 *	139.0	180.9 **	158.4	180.9	139.0	11.2	21.5
15.5 12.9	12.7	12.9	13.7	14.8	11.8	14.2	13.2	15.5	11.7	9.5	1.5
95 95	96	97	93	94	95	96	96	66	93	5	ო
000	0	0	0	0	0	0	0	0	0	0	0
53.8 54.0	52.8	53.7	53.5	54.8	54.0	52.6	53.5	54.8	52.5	6.0	2.2
× 4.0 * * *	5.2 *	* 8.7	t.6 *	9.4 *	3.3 *	7.2 ** !	9.1	2.2	3.3	6.7	3.0
	3 185	187	192	189	18.	2 197	189	2 197	183	1	S
18.0	17.3	17.2	17.7	17.4	17.	18.2	17.4	18.2	16.9	25.′	3.0
CONV	CONV	CONV	CONV	CONV	CONV	CONV					
96 96	100	66	100	97	96	100					
5 12 14 14	10	80		0							
	44-21         94         CONV         18.0         185.4         53.8         0         98         15.5         173.8         54.5         0           82-21         96         CONV         17.2         187.0         54.0         0         95         12.9         159.6         51.5         1         0         0         0         0         0         15         1         0	444-21         94         CONV         18.0         185.4         53.8         0         98         15.5         173.8         54.5         0           482-21         96         CONV         17.2         187.0         54.0         0         95         12.9         1596.*         51.5         0.0         05         51.5         0.0         05         51.5         0.0         05         51.5         0.0         05         51.5         0.0         05         51.5         0.0         05         51.5         0.0         05         51.5         0.0         05         51.5         0.0         05         51.5         0.0         05         51.2         142.7         50.0         0	444-21       94       CONV       18.0       185.4 * 53.8       0       98       15.5       173.8 * 54.5       5         482-21       96       CONV       17.2       187.0 * 54.0       0       95       12.9       159.6 * 51.5       0         55       100       CONV       17.3       185.2 * 52.8       0       96       12.7       142.7       50.0       0         28       99       CONV       17.2       187.8 * 53.7       0       97       12.9       151.0       51.7       0	444-21       94       CONV       180       185.4 * 53.8       0       98       15.5       173.8 * 54.5       6         4482-21       96       CONV       17.2       187.0 * 54.0       0       95       12.9       159.6 * 51.5       6         55       100       CONV       17.2       187.0 * 54.0       0       96       12.7       142.7       50.0       6         28       99       CONV       17.2       187.8 * 53.7       0       97       12.9       151.0       51.7       0         28       99       CONV       17.7       194.6 * 53.5       0       93       13.7       1708 * 51.9       0       0	244-21       94       CONV       18.0       185.4 * 53.8       0       98       15.5       17.3       8 * 54.5       0         2442-21       96       CONV       17.2       187.0 * 54.0       0       95       12.9       1596 * 51.5       0         55       100       CONV       17.2       187.0 * 54.0       0       96       12.7       142.7       50.0       0         28       99       CONV       17.7       187.8 * 53.7       0       97       12.9       151.0       51.7       0         28       99       CONV       17.7       194.6 * 53.5       0       93       13.7       170.8 * 51.9       0       0       13.7       170.8 * 51.9       0         297       CONV       17.4       189.4 * 54.8       0       94       14.8       170.9 * 54.2       0	7444-21       94       CONV       18.0       18.5.4       53.8       0       98       15.5       17.3       8       5.4.5       0         7444-21       94       CONV       17.2       187.0       54.0       0       98       15.5       17.3       8       5.4.5       0         55       100       CONV       17.2       187.0       54.0       0       96       12.7       142.7       50.0       0         28       99       CONV       17.2       187.8       53.5       0       97       12.9       151.0       51.7       0         28       99       CONV       17.7       194.6       53.5       0       93       13.7       170.8       51.9       0         29       CONV       17.4       189.4       54.8       0       94       14.8       170.9       54.2       0         96       CONV       17.1       183.3       54.0       0       95       11.8       139.0       50.8       0	7444-21       94       CONV       18.0       18.5.4       53.8       0       98       15.5       173.8       54.5       0         2482-21       96       CONV       17.2       187.0       55.4       0       95       12.9       51.5       6       6         55       100       CONV       17.2       187.2       53.8       0       96       12.7       142.7       50.0       0         28       99       CONV       17.2       187.8       53.7       0       97       12.9       151.0       51.7       0         28       99       CONV       17.7       194.6       53.5       0       93       13.7       170.8       51.9       0         29       CONV       17.4       189.4       54.8       0       94       14.8       170.9       54.2       0         96       CONV       17.1       183.3       54.0       0       95       11.8       139.0       50.8       0       13.7       170.9       54.2       0         96       CONV       17.1       183.3       54.0       0       95       11.8       1390       50.8       0.8       14.2	2444-21       94       CONV       18.0       18.0.4       53.8       0       98       15.5       173.8       54.5       0         2444-21       96       CONV       17.2       187.0       55.4.6       0       95       12.9       159.6       51.5       1         55       100       CONV       17.2       187.0       55.4.6       0       95       12.7       142.7       50.0       0         28       99       CONV       17.2       187.8       53.5       0       97       12.9       151.0       51.7       0         28       99       CONV       17.7       194.6       53.5       0       93       13.7       170.8       51.9       0         28       99       CONV       17.4       189.4       54.8       0       94       14.8       170.9       54.2       0         28       96       CONV       17.1       183.3       54.0       0       95       11.8       139.0       50.8       0.6       60.8       60.8       60.8       60.8       60.8       60.8       60.8       60.8       60.8       60.8       60.8       60.8       60.8       60.8	7444-21       94       CONV       18.0       18.5.4       53.8       0       98       15.5       173.8       54.5       5         282-21       96       CONV       17.2       187.0       54.0       0       95       12.9       555.5       51.5       6         55       100       CONV       17.2       187.2       52.8       0       96       12.7       142.7       50.0       6         28       99       CONV       17.2       187.8       53.5       0       97       12.9       151.0       51.7       0         28       99       CONV       17.7       194.6       53.5       0       93       13.7       170.8       51.9       0         29       CONV       17.7       194.6       53.5       0       94       14.8       170.9       54.2       0         96       CONV       17.1       183.3       54.0       0       95       11.8       139.0       50.8       0       60.8       51.3       0       61.9       67.2       0       67.2       0       67.2       0       67.2       0       67.2       0       67.2       0       67.2       <	7444-21       94       CONV       18.0       18.5.4       5.3.8       0       98       15.5       173.8       5.4.5         2482-21       96       CONV       17.2       187.0       54.0       0       95       12.9       15.65       51.5       6         55       100       CONV       17.2       187.0       54.0       0       95       12.9       159.6       51.5       6         28       99       CONV       17.2       187.8       53.7       0       97       12.9       151.0       51.1       6       6       7       12.9       151.0       51.1       6       7       12.9       151.0       51.1       6       7       12.9       17.7       19.4       53.5       0       93       13.7       170.8       51.9       6       7       12.9       51.9       7       7       10       7       19.4       53.5       0       94       14.8       170.09       54.2       0       13.7       170.8       51.9       0       6       14.2       180.9       54.2       0       12.9       13.0       51.2       0       54.2       0       14.2       18.0       95.1.3	7444-21       94       CONV       185.1.5       53.8       0       98       15.5       173.8       54.5       0         282-21       96       CONV       17.2       187.0       55.4.0       0       95       12.9       159.6       51.5       6         55       100       CONV       17.2       187.2       52.8       0       96       12.7       142.7       50.0       0         28       99       CONV       17.2       187.8       53.5       0       97       12.9       151.0       51.1       0         28       99       CONV       17.7       194.6       53.5       0       93       13.7       170.8       51.9       0         29       CONV       17.7       194.6       53.5       0       94       14.8       170.9       54.2       0         96       CONV       17.1       183.3       54.0       0       95       11.8       139.0       50.8       51.3       0         100       CONV       17.1       183.3       54.0       0       95       14.2       180.9       54.2       0         100       CONV       17.4       189

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### ZONE 2 - 3 INGHAM, MONTCALM & SAGINAW COUNTY CONVENTIONAL GRAIN TRIALS - LATE (102 Day and Later)

WH20         BU/A         Iwr         %SL           17.4         229.6 *         56.1         0           17.8         219.8         54.9         0           17.5         212.5         57.7         0           18.6         217.8         53.8         0           18.7         226.2         56.0         0           19.1         223.3         57.1         0
17.4         229.6 * 56.1         0           17.8         219.8         54.9         0           17.5         212.5         57.7         0           18.6         217.8         53.8         0           18.7         226.2         56.0         0           19.1         223.3         57.1         0
7.8 219.8 54.9 7 7.5 212.5 57.7 8 8.6 217.8 53.8 9 8.7 226.2 56.0 9.1 223.3 57.1
17.5         212.5           18.6         217.8           18.7         226.2           19.1         223.3
96 18.6 98 18.7 95 19.5
1.5 ** 55.2 0 1.0 * 54.6 0
19.8 216.0 *
.6 0 95 19
216.0 * 54.6
2
70.4

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

### 2022 SILAGE PERFORMANCE TRIALS

### Introduction

The silage index (pg. 25) contains a list of all hybrids planted in the 2022 silage trials.

County results are reported in the following tables:

Tables 6E/6L Zone 1 - Branch, Lenawee, and Wood\* Tables 7E/7L Zone 2/3 - Ottawa, Huron\*, and Ingham Tables 8E/8L Zone 4 - Iosco, Osceola, and Presque Isle

\*Locations dropped due to uncontrolable events

The map of Michigan (pg. 23) 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 grain trials. For silage, agronomic information refer to Table C (pg. 24).

All silage maturity zones were divided into two maturity groups designated early and late based on the relative maturity (RM) submitted by the companies with results listed in separate tables. The Wood Country, OH location is managed in cooperation with The Ohio State University. Planting and inseason management is conducted by The Ohio State University while Michigan State University harvests plots and performs quality and data analysis.

A New Holland T6.175 tractor powered a two-row Champion C1200 Kemper forage harvester, and a rear mounted Haldrup M-63 weigh system is used to harvest the two center rows of plots. Electronic scales mounted on the Haldrup M-63 weigh system measured plot and subsample weights. All field data was recorded on a Panasonic FZ-G1 Toughpad using Harvest MasterTM software. Total plot weight was used to calculate green tons per acre (GT/A). Subsamples of fodder, including grain, were collected, weighed, and oven dried in a WRH586-500 Greives forced air dryer until weight loss was zero, then re-weighed to determine the percent dry Dry tons per acre (DT/A) is calculated matter (%DM). mathematically by multiplying GT/A by %DM. The samples were ground using a Christy mill fitted with a 1mm screen before conducting quality analysis using near-infrared spectroscopy (NIRS) to predict quality components.

### Silage Analysis

Tables 6E, 6L, 7E, 7L, 8E, and 8L provide silage quality data as determined by near-infrared spectroscopy (NIRS) analysis on freshly dried & ground samples. Data is provided for individual locations as well as averaged over multiple locations within each zone. 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 the NIRS Consortiums calibration equation established for silage quality levels. Results of the six quality traits analyzed are presented in the quality tables.

The six silage quality traits:

1. IVD= (in vitro) digestible dry matter-48hr. 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 most of the energy in corn silage. High starch content is desirable.

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

The MILK2006 equation (University Wisconsin-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 crude protein, 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. 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 neutral detergent fiber 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

### 2022 Silage Trial Locations



### **Notes**

TABLE C.

AGRONOMIC TABLE FOR SILAGE TRIAL LOCATIONS

	County	Planting Date	Silage Harvest	Previous Crop	Fertilizer N-P-K	Soil Type	Soil Test <sup>1</sup>	Cooperator	Location
	(но) доом			LOCA'	TION DROPPE	Δ		OARDC Rich Minyo, Matt Davis	Hoytville, OH
t ənoz	BRANCH (Irrigated)	5/24	9/13	Soybean	199-8-2	Loamy Sand	PH 7.3, P 98, K 104	Huff Farms Kyle Huff	Coldwater
	LENAWEE	6/1	9/20	Corn	167-7-2	Loamy Sand	PH 6.6, P 160, K 166	Raymond & Stutzman Farm Tim Stutzman	Seneca
	INGHAM	5/12	9/16	Soybean	169-8-2	Sandy Clay Loam	PH 7.1, P 29, K 118	Plant, Soil and Microbial Sciences Facility MSU	East Lansing
2 ənoZ	ОТТАWA (Irrigated)	5/17	9/19	Corn	202-10-3	Sand	PH 6.6, P 74, K 132	Ottawa Station Farms Adam Geertman	West Olive
	HURON			LOCA'	TION DROPPE	Q		Wil-Le Farms Ron, Ed and Chris McCrea	Bad Axe
	IOSCO	6/3	9/22	Corn	171-9-3	Sandy Loam	PH 7.3, P 57, K 191	Double B Dairy Jeremy, Tim and Roger Beebe	Hale
£ ənoZ	OSCEOLA	5/13	9/14	Soybean	175-11-3	Sand	PH 6.7, P 47, K 90	Gingrich Meadows Brandon Gingrich	Leroy
	PRESQUE ISLE	6/3	9/22	Corn	170-8-2 + manure	Sandy Loam	PH 7.5, P 63, K 111	Ponik Farms Paul Ponik, Jeremy Karsten	Posen

- - P and K reported in m3-ppm

### SILAGE HYBRID INDEX

COMPANY/HYBRID	RM	TECHNOLOGY	TABLE	COMPANY/HYBRID	D RM	TECHNOLOGY	TABLE
CHANNEL				LEGACY (cont.)			
206-99STXRIB	106	STX	6F	LC623-21 5122	112	D2	6L
210-98STXRIB	110	STX	6E	LC634-20 SSX	113	STXRIB	6L
210-99STXRIB	110	STX	6E				
212-52SSPRIB	112	STX	6L	LG SEEDS			
214-22STXRIB	114	STX	6L	LG42C37-3220	92	VZ	8E
				LG45C21-5122	95	D1	7E,8E
DAIRYI AND SEED				LG49C28-VT2	99	VT2P	7E,8L
	00	0	05	LG50C93-5222	100	D2	7E,8L
HIDF-3044Q	90	Q	8E	LG51C62-VT2	101	VT2P	7E
DS-3162Q	91	Q		LG52C42-VT2	102	VT2P	7E
	90	Q	7 E,0E 7 E 91	LG54C11-5222	104	D2	7E
HIDE-40730	90 100	Q	7 E,0E 6E 7E 8I	LG58C77-5222	108	D2	6E,7L
HiDE-38020	100	Q	7E	LG59C72-VT2	109	VT2P	6E,7L
HiDF-45450	105	Q	6E 7I				
DS-4510Q	105	Q	7	NK SEEDS			
HiDF-4999Q	109	Q	6E	NK9991-5122	99	D1	7E
HiDF-5000Q	110	Q	6E,7L	NK9922-5222	99	D2	7E
DS-5144Q	111	Q	6L	NK0748-5122	107	D1	7L
				NK1239-5122	112	D1	6L
DYNA-GRO SEED				Nk1354-5222	113	D2	6L
	96		85	NK1755-5222	117	D2	6L
D40VC41	100	VT2PRIB	7E 8I				
D41SS60	102	STXRIB	7E,02	RENK			
D45TC55	105	TRERIB	7L	RK710DGVT2P	107	VT2P 1	7L
D48SS50	108	STXRIB	6E,7L	RK700SSTX	108	STX	7L
D50VC09	110	VT2PRIB	6E,7L	RK842VT2P	112	VT2P	7L
D52DC82	112	VT2PRIB <sup>1</sup>	6L,7L	RK895DGVT2P	113	VT2P <sup>1</sup>	7L
				RK945DGVT2P	115	VT2P <sup>1</sup>	7L
GOLDEN HARVEST				RK940SSTX	115	STX	7L
G91V51-5222A	91	D2 <sup>1,2</sup>	8E	SEEDWAY			
G95D32-3220	95	VZ <sup>2</sup>	8E	SEEDWAT			
G02K39-5122	102	D1	7E,8L	SW 9726TR	97	TRE	6E
G04S19-3122	104	3122 E-Z	7E,8L	SW 0030SS	100	SIX <sup>6</sup>	6E
G07G73-5122	107	D1	6E	SW 032155	103	SIX®	6E
G10L16-5222A	110	D2 '**	6E,7L				
G13750-5222	112		6	SPECIALI Y HYBRI	DS		
G14N11-5222	114	D2 2	6	37A901	107	STX	6E,7L
OT HIT OLLL		DE	02	38G252	108	VT2P <sup>1</sup>	6E,7L
LEGACY				40A662	110	SIX	6E,7L
	~-		05	41DT911	111	IRE	6L
LC451-21 VT2P	95	VI2PRIB	8E	42A843	112	VT2P	6L
LC464-21 3120	96	BZ	8L	43A311	113	SIX	6L
LC474-20 TRE	97	IRERIB	8E				
L0493-21 5122	99 100		/ E 7E	VIKING			
LU-4240 VIZE	100		/ E 7E	O.69-01P	101	CONV	8L
LO-3217 VIZE	102		7E 7E	O.51-04P	104	CONV	7E
L 0.525-21 F W	102		7	O.48-08P	108	CONV	7L
L C594-21 VT2P	109	VT2P	6F	0.82-14P	114	CONV	6L
	100	V 1 Z I	<u>v</u> L	0.23-11GS	111	CONV	6L
OTHER HYBRID TRAITS:							

1 DT

<sup>4</sup> RW <sup>2</sup> VIPTERA (BL: BROAD LEP.)

<sup>3</sup> WBC

<sup>5</sup> ARTESIAN

<sup>6</sup> BCW, CEW, ECB, FAW, SB, SCB, SWB, CR

<sup>7</sup> CEB, FAW, SB, SCB, SWB

<sup>8</sup> BCW, CEW, FAW, SB, SCB, SWB

<sup>9</sup> BCW, CEW, ECB, FAW, SB, SCB, SWB, TAW, WBC

TABLE 6E.

## BRANCH, LENAWEE & WOOD (OHIO) COUNTY SILAGE TRIALS - EARLY (110 Day and Earlier)

	2006	MK/A	22140	26236	24903	20205	26096	21756	22366	23487	21806	19303	23922	28770	17850	29029	28059	22014	21839	28509	27189	23238	23936	29029	17850	15	4343
	MILK	ЛКЛ	2561	2897	2654	2729	2876	5607	2657	2657	2717	2372	2515	2928	242	5899	5950	2381	2385	3176	2841	2497	222	3176	242	11	337
		STR N	36.0 2	38.0	36.4	37.2 2	36.9	32.4 2	36.4	37.3	36.5	36.6	32.3 2	t0.7	31.3	11.2	11.6	32.0 2	35.4 2	11.4	37.9	35.4 2	36.6 2	11.6	31.3	9.9	4.3
		сь	5.9	6.5	6.0	6.1	6.2	6.3	6.2	6.4 3	5.6	5.7 3	6.3	6.3	6.1	6.0	6.4	5.9	5.8	6.2	5.9	6.2 3	6.1 3	6.5 4	5.6	8.9	0.6
	ПТΥ	NDFD	35.9	41.8	39.2	40.7	46.5	45.5	39.5	35.1	41.4	34.1	36.8	36.7	35.8	35.0	34.7	41.7	28.9	47.2	42.9	33.5	38.6	47.2	28.9	14.0	6.4
arly	% QUA	NDF	25.7	26.9	25.8	25.2	29.5	30.0	25.3	24.8	27.4	24.3	27.6	24.2	27.5	23.5	23.4	27.2	25.9	25.1	26.4	25.9	26.1	30.0	23.4	11.8	3.6
nch - E	0	ADF	21.8	23.3	21.7	20.8	26.3	24.5	21.1	21.5	23.1	21.1	24.0	20.2	24.0	20.1	21.3	20.7	23.9	18.8	21.3	21.7	22.1	26.3	18.8	10.1	2.6
Bra		۵N	83.7	84.6	84.3	85.1	84.2	83.8	84.8	83.9	83.9	84.0	82.6	84.7	82.4	84.8	84.7	84.2	81.6	86.9	85.0	82.8	84.1	86.9	81.6	2.3	2.3
		STD	100	103	100	66	96	66	89	88	91	98	66	66	97	66	100	100	95	97	97	98	67	103	88	2	9
	Ω	T/A %	* 9.8	.1 *	.3 *	.3 **	* 0.6	3.4	3.4	* 8.8	3.0	.5 *	3.1	* 8.0	6.	* 0.0	.5 *	.3 *	12 *	* 0.6	• 7.	.3 *	9.1	.3	6.	5.7	<u>.</u>
	YIEL	D 4/-	0.0	5.0	5.5	.6 10		4.	2.7	5 8	80	9.0	2.2	4.	0.0	.4 10	2.2	33	0.0	2.2	6. 0	8.0	.4 0	.4 10	.6	8.16	с, Г
		M GT	.5 25	.6 25	.3 25	.4 20	.8 25	.4 24	5 23	.4 24	.2 22	.1 25	.2 23	.3 26	.6 23	.4 25	.6 25	.6 25	.9 23	.7 23	.9 24	.1 25	.2 24	.4 26	.4 20	2 7.	4
_		A %D	2 34	1 35	2 36	7 48	5 35	34	6 35	2 36	35.	7 37	6 35	2 37	6 34	33	2 37	8 36	5 39	38	6 38	7 36	5 37	2 48	34	12	7 5.
	.K 2006	MK	2816	3056	2657	2672	2923	2674	2382	2664	2736	2315	2936	3130	2262	2716	2893	2610	2720	2985	2880	2591	2731	3130	2262	15	340
	MIL	MK/T	2934	3140	2860	3107	3100	2875	2703	2912	3036	2679	3017	3111	2566	2914	3053	2810	2904	3185	2940	2709	2928	3185	2566	10	239
		STR	39.8	40.0	38.2	39.8	38.7	35.5	36.1	38.8	38.0	40.0	35.6	40.5	34.7	39.8	41.0	36.8	39.8	39.8	38.4	36.0	38.4	41.0	34.7	11.6	3.7
		с С	6.7	6.9	6.7	6.8	7.0	7.0	6.9	7.1	6.5	6.6	6.9	6.8	6.8	6.9	7.0	6.8	6.6	7.0	6.8	6.9	6.8	7.1	6.5	6.6	0.4
AGE	JALITY	NDFI	39.5	47.0	41.0	48.1	49.0	47.9	39.8	40.2	48.0	43.3	39.8	44.0	37.6	37.4	39.7	43.2	37.5	49.5	43.4	39.3	42.8	49.5	37.4	15.0	5.3
AVER	% QL	NDF	23.9	25.9	25.0	24.8	27.2	27.7	25.2	24.6	27.2	24.4	25.9	24.9	25.8	24.0	23.9	25.4	24.5	25.6	25.5	26.0	25.4	27.7	23.9	11.6	2.4
TRIAL		ADF	19.6	20.6	20.5	19.1	22.1	21.8	21.1	20.2	21.3	19.4	21.6	19.3	22.2	20.3	20.0	19.5	20.7	19.0	20.4	20.9	20.5	22.2	19.0	13.0	2.2
Early -		ND	85.5	86.3	85.2	87.2	86.2	85.7	84.9	85.3	86.0	86.2	84.4	86.3	83.9	85.0	85.7	85.6	84.6	87.2	85.6	84.3	85.6	87.2	83.9	2.1	1.5
		%STD	66	66	66	97	96	86	88	92	92	97	67	66	94	97	66	86	96	96	86	97	96	66	88	9	4
	ELD	DT/A	9.5 *	9.6 *	9.2 *	8.9 *	9.4 *	9.2 *	8.8	9.1 *	8.9	9.7 *	8.5	10.1 **	8.7	9.2 *	9.5 *	9.3 *	9.3 *	9.4 *	9.8 *	9.5 *	9.3	10.1	8.5	13.0	1.0
	×	GT/A	25.3	25.7	25.1	23.0	26.2	26.5	26.4	25.2	24.8	27.0	24.4	26.2	25.4	25.5	25.2	24.9	22.7	25.2	26.5	27.1	25.4	27.1	22.7	7.5	1.6
		%DM	37.5	37.7	36.9	43.1	35.9	34.8	33.4	36.4	35.8	35.9	35.0	38.4	34.3	36.2	37.5	37.3	41.3	37.4	37.3	35.3	36.9	43.1	33.4	10.3	3.1
		TRAIT	STX	STX	STX	ø	ø	a	ø	TXRIB	T2PRIB	D2	D1	VT2P	D2	VT2P	STX	STX	TRE	STX	VT2P	STX					—
		MS	90	10	10	8	05	60	10	80 S	10 V	10	07	60	80	60	8	03	97	07	80	10					
		-	-	-	-	-	-	-	-	-	-	~	-	-	-	-	-	-		-	-	1					
	2022	BRAND / HYBRID	Channel 206-99STXRIB	Channel 210-98STXRIB	Channel 210-99STXRIB	Dairyland Seed HiDF-4073Q	Dairyland Seed HiDF-4545Q	Dairyland Seed HiDF-4999Q	Dairyland Seed HiDF-5000Q	Dyna-Gro Seed D48SS50	Dyna-Gro Seed D50VC09	Golden Harvest G10L16-522A	Golden Harvest G07G73-5122	Legacy Seeds LC594-21 VT2P	LG Seeds LG58C77-5222	LG Seeds LG59C72-VT2	Seedway SW 0030SS	Seedway SW 0321SS	Seedway SW 9726TR	Specialty Hybrids 37A901	Specialty Hybrids 38G252	Specialty Hybrids 40A662	AVERAGE	HIGHEST	LOWEST	CV (%)	LSD (5%)

\*\* Highest Yielding Hybrid \* Not Significantly Different from Highest Yielding Hybrid 2-Year Averages Available in online version at https://www.canr.msu.edu/varietytrials

**ZONE 1** 

								enawee	e - Early								Wood - Early	
2022				Ĺ	VIELD				% QL	IALITY			MILK	2006	VIELD		% QUALITY MII	ILK 2006
BRAND / HYBRID	RM	TRAIT	%DM	GT/A	DT/A	%ST	DVI QVI	ADF	NDF	NDFD	С	STR	MK/T	MK/A	%DM GT/A DT/A	%STD	IVD ADF NDF NDFD CP STR MK/	C/T MK/A
Channel 206-99STXRIB	106	STX	40.6	25.6	10.3 **	67	87.4	17.5	22.2	43.1	7.6	43.6	3307	34183				
Channel 210-98STXRIB	110	STX	39.9	25.8	10.2 *	96	88.1	18.0	24.9	52.3	7.4	41.9	3384	34886				
Channel 210-99STXRIB	110	STX	37.4	24.8	9.2	97	86.2	19.3	24.2	42.8	7.4	39.9	3065	28240				
Dairyland Seed HiDF-4073Q	100	Ø	37.8	25.3	9.5 *	95	89.2	17.3	24.3	55.5	7.5	42.5	3485	33250				
Dairyland Seed HiDF-4545Q	105	Ø	36.0	27.1	9.7 *	96	88.3	18.0	25.0	51.6	7.8	40.5	3325	32374				
Dairyland Seed HiDF-4999Q	109	ø	35.3	28.5	10.0 *	67	87.5	19.2	25.3	50.4	7.7	38.6	3143	31730				
Dairyland Seed HiDF-5000Q	110	Ø	31.3	29.1	9.1	87	85.1	21.0	25.0	40.1	7.7	35.8	2749	25285				
Dyna-Gro Seed D48SS50	108	STXRIB	36.4	26.2	9.4 *	97	86.7	19.0	24.5	45.3	7.8	40.2	3168	29797				
Dyna-Gro Seed D50VC09	110	<b>VT2PRIB</b>	36.5	26.8	9.8 *	94	88.0	19.4	27.0	54.7	7.5	39.6	3355	32931				
Golden Harvest G10L16-522A	110	D2	34.8	28.4	9.9 *	67	88.5	17.7	24.5	52.6	7.4	43.4	2986	27010				
Golden Harvest G07G73-5122	107	D1	34.9	25.6	0.6	95	86.2	19.2	24.1	42.7	7.4	39.0	3519	34871				
Legacy Seeds LC594-21 VT2P	109	VT2P	39.4	26.0	10.3 **	86	87.9	18.3	25.7	51.4	7.3	40.3	3294	33834				
LG Seeds LG58C77-5222	108	D2	34.0	27.8	9.5 *	6	85.4	20.4	24.2	39.3	7.6	38.2	2890	27401				
LG Seeds LG59C72-VT2	109	VT2P	32.9	25.6	8.5	94	85.2	20.6	24.6	39.8	7.7	38.4	2929	25297				
Seedway SW 0030SS	100	STX	37.4	25.3	9.4 *	86	86.7	18.8	24.4	44.7	7.5	40.4	3157	29806				
Seedway SW 0321SS	103	STX	38.0	24.5	9.3	95	87.1	18.3	23.6	44.7	7.7	41.6	3238	30202				
Seedway SW 9726TR	97	TRE	42.6	22.3	9.5 *	67	87.6	17.6	23.1	46.1	7.5	44.2	3423	32572				
Specialty Hybrids 37A901	107	STX	36.1	27.1	9.8 *	94	87.5	19.1	26.1	51.9	7.9	38.3	3195	31198				
Specialty Hybrids 38G252	108	VT2P	35.6	28.1	10.0 *	98	86.2	19.4	24.7	44.0	7.7	38.9	3038	30424				
Specialty Hybrids 40A662	110	STX	34.5	28.3	9.8 *	95	85.8	20.2	26.1	45.1	7.6	36.5	2920	28595				
AVERAGE			36.6	26.4	9.6	95	87.0	18.9	24.7	46.9	7.6	40.1	3179	30694				
HIGHEST			42.6	29.1	10.3	98	89.2	21.0	27.0	55.5	7.9	44.2	3519	34886				
LOWEST			31.3	22.3	8.5	87	85.1	17.3	22.2	39.3	7.3	35.8	2749	25285				
CV (%)			7.9	7.2	8.3	9	1.8	11.5	11.3	15.5	4.6	10.8	6	15				
LSD (5%)			3.4	2.25	0.94	7	1.81	2.57	3.29	8.59	0.41	5.11	343	5354				

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### TABLE 6L.

## BRANCH, LENAWEE & WOOD (OHIO) COUNTY SILAGE TRIALS - LATE (111 Day and Later)

**ZONE 1** 

							Late -	TRIAL	AVERA	В									B	anch -	Late					
2022					VIELD				% QU/	ALITY			MILK	2006		۲	ELD				% QUA	LIT			MILK 2	900
BRAND / HYBRID	RM	TRAIT	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	СР	STR	MK/T	MK/A	WD%	GT/A	DT/A	%STD	IVD	ADF	NDF N	DFD	СР	TR N	K/T N	IK/A
Channel 212-52SSPRIB	112	STX	35.7	25.5	* 0.6	98	85.1	20.5	25.0	40.3	6.9	38.1	2859	26039	36.0	24.5	8.8	67	83.8	21.5	24.7	34.3	0.0	7.8 2	650 2	3408
Channel 214-22STXRIB	114	STX	37.5	26.0	9.7 **	66	86.2	20.1	25.6	45.6	6.8	39.2	3052	29607	38.0	25.6	9.7 *	66	85.5	20.5	25.3	42.8	6.1	9.0 2	900 2	8084
Dairyland Seed DS-5144Q	111	Ø	36.6	26.0	9.5 *	96	84.7	22.0	26.3	42.1	6.7	36.0	2754	26171	38.6	25.6	9.9 *	97	84.9	21.4	25.6	40.9	5.8	7.7 2	755 2	7276
Dyna-Gro Seed D52DC82	112	<b>VT2PRIB</b>	35.3	26.9	9.5 *	93	86.2	19.8	24.9	44.2	6.8	39.4	3015	28755	34.8	25.7	8.9	89	85.2	20.8	25.0	40.5	6.2	8.1 2	798 2	4993
Golden Harvest G12S75-5122	112	D1	35.8	26.7	9.5 *	97	85.1	21.9	28.1	46.2	7.0	34.7	2815	26583	38.5	24.1	9.2	66	84.0	21.8	26.8	40.2	5.8	6.3 2	668 2	4442
Golden Harvest G13Z50-5222	113	D2	36.2	25.4	9.2 *	96	85.7	21.8	26.9	47.3	6.5	37.4	2927	27313	36.8	24.2	8.9	<u> 8</u> 6	83.5	23.7	28.7	42.5	5.5	3.3 2	519 2	2748
Golden Harvest G14N11-5222	114	D2	35.8	25.8	9.2 *	95	84.7	21.5	26.3	41.9	6.6	37.5	2863	26542	37.1	24.3	9.0	66	82.5	23.2	26.3	33.6	5.7	6.0 2	511 2	2916
Legacy Seeds LC623-21 5122	112	D2	37.4	26.4	9.7 *'	96	82.0	24.7	28.3	35.8	6.7	30.6	2289	22088	42.7	25.1	10.6 **	92	81.3	25.0	27.9	32.8	5.9	1.1 2	177 2	2864
Legacy Seeds LC634-20 SSX	113	STXRIB	36.3	25.5	9.3 *	94	85.3	21.3	27.0	45.5	7.1	35.7	2838	26573	37.0	23.5	8.7	94	83.8	22.7	27.8	41.4	6.4	4.3 2	614 2	2800
NK Seeds NK1239-5122	112	D1	36.4	26.6	9.5 *	97	84.4	22.6	27.8	43.5	6.9	34.0	2688	25875	39.2	22.4	8.8	101	83.0	23.8	27.9	38.9	6.1	3.2 2	466 2	1741
NK Seeds Nk1354-5222	113	D2	46.0	19.2	8.5	98	79.7	27.9	30.8	35.9	8.9	36.0	2906	24644	35.8	22.4	8.0	100	72.0	37.6	38.0	25.9	9.5	9.5 2	446 1	9564
NK Seeds NK1755-5222	117	D2	32.7	28.2	9.1 *	97	85.0	22.3	28.3	46.1	6.8	32.2	2595	23789	33.3	26.3	8.7	94	84.4	23.0	28.8	45.6	6.1	2.0 2	519 2	1918
Specialty Hybrids 41DT911	111	TRE	37.4	25.4	9.5 *	97	85.2	21.2	25.5	41.8	6.8	37.9	2875	27788	36.4	23.3	8.5	96	82.9	23.8	27.3	37.2	5.7	4.4 2	478 2	1125
Specialty Hybrids 42A843	112	VT2P	33.1	28.7	9.5 *	98	84.4	21.3	25.9	39.7	7.0	36.0	2725	25836	34.2	27.5	9.4	97	84.0	21.0	24.8	35.5	6.4	7.0 2	637 2	4925
Specialty Hybrids 43A311	113	STX	36.0	26.3	9.4 *	66	86.1	20.4	26.1	46.8	7.0	37.3	2944	27741	37.4	24.9	9.2	86	84.1	22.6	27.1	41.2	5.8	5.3 2	626 2	4318
Viking 0.23-11GS	111	CONV	34.8	27.5	9.5 *	66	85.1	20.5	24.0	37.8	6.4	37.9	2736	26139	34.3	26.8	9.1	66	84.2	21.1	23.9	33.8	5.4	7.1 2	518 2	2876
Viking O.82-14P	114	CONV	33.9	27.1	9.2 *	87	84.7	22.7	27.8	45.1	6.7	35.4	2802	26210	32.7	25.9	8.5	82	82.9	25.8	31.2	44.7	6.0	9.6 2	383 2	0232
AVERAGE			36.3	26.1	9.3	96	84.7	21.9	26.7	42.7	6.9	36.2	2805	26335	36.6	24.8	9.1	96	83.0	23.5	27.5	38.3	6.1	4.8 2	569 2	3308
HIGHEST			46.0	28.7	9.7	66	86.2	27.9	30.8	47.3	8.9	39.4	3052	29607	42.7	27.5	10.6	101	85.5	37.6	38.0	45.6	9.5	9.0 2	900 2	8084
LOWEST			32.7	19.2	8.5	87	79.7	19.8	24.0	35.8	6.4	30.6	2289	22088	32.7	22.4	8.0	82	72.0	20.5	23.9	25.9	5.4 2	9.5 2	177 1	9564
CV (%)			12.4	11.6	11.0	7	3.7	16.9	12.6	15.8	15.9	13.7	12	17	10.6	8.7	10.5	7	2.4	10.4	8.3	14.3	11.1	2.3	13	19
LSD (5%)			3.7	2.5	0.9	9	2.6	3.1	2.8	5.6	0.9	4.1	278	3726	4.6	2.6	1.1	ω	2.3	2.9	2.7	6.5	0.8	5.1	101	5155

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

						-	Lenŝ	wee - L	ate									Wood	I - Late			ŀ		
2022				۲	ELD			%	QUALI7	∠		MILK ;	2006		ΥIE	LD			% Ο	JALITY			<b>MILK 2006</b>	6
<b>BRAND / HYBRID</b>	RM	TRAIT	%DM	GT/A	DT/A	%STD		ADF NI	DF ND	FD CF	STR	MK/T	MK/A	WDW	GT/A	DT/A %	STD	VD AD	F NDF	NDFD	СР	STR I	<b>MK/T MK/</b>	A
Channel 212-52SSPRIB	112	STX	35.4	26.4	9.3	66	36.5	19.6 25	6.3 46	3.7.8	3 38.3	3068	28670											
Channel 214-22STXRIB	114	STX	37.1	26.4	9.7 *	100	36.8	19.8 25	6.9 48	.5 7.6	39.5	3205	31129											
Dairyland Seed DS-5144Q	111	ø	34.6	26.4	9.1	95	34.6	22.6 27	.0 43	.4 7.6	34.4	2752	25066											
Dyna-Gro Seed D52DC82	112	VT2PRIB	35.8	28.2	10.1 *	97	87.2	18.7 24	1.7 47	3.7 6.	5 40.6	3231	32516											
Golden Harvest G12S75-5122	112	D1	33.2	29.3	9.7 *	96	36.2 2	22.1 25	.4 52	.2 8.3	33.1	2962	28723											
Golden Harvest G13Z50-5222	113	D2	35.7	26.5	9.5 *	95	87.9	20.0 25	6.1 52	1 7.4	41.5	3334 3	31878											
Golden Harvest G14N11-5222	114	D2	34.4	27.3	9.4	91	. 6.98	19.7 26	3.3 50	1.3 7.5	5 39.1	3214	30168											
Legacy Seeds LC623-21 5122	112	D2	32.2	27.6	8.9	66	32.7	24.5 28	38 38	.8 7.6	30.1	2400	21313											
Legacy Seeds LC634-20 SSX	113	STXRIB	35.7	27.5	9.8 *	94	. 6.98	19.9 26	3.3 49	.7 T.I	7 37.1	3061	30345											
NK Seeds NK1239-5122	112	5	33.6	30.8	10.3 *	94	35.9	21.5 27	.6 48	2 7.8	34.8	2910	30010											
NK Seeds Nk1354-5222	113	D2	56.3	15.9	8.9	92	37.5	18.3 25	3.6 46	0.8.2	2 42.5	3365	29724											
NK Seeds NK1755-5222	117	D2	32.0	30.0	9.6 *	100	35.5	21.6 27	.7 46	.6 7.4	1 32.4	2670	25660											
Specialty Hybrids 41DT911	111	TRE	38.5	27.6	10.6 **	98	97.5	18.5 23	3.8 46	.5 7.9	9 41.4	3271	34452											
Specialty Hybrids 42A843	112	VT2P	31.9	29.9	9.5 *	66	34.9	21.7 27	.0 44	1.0 7.7	7 34.9	2813	26746											
Specialty Hybrids 43A311	113	STX	34.5	27.6	9.5 *	66	38.1	18.3 25	0.0 52	.3	1 39.4	3262	31165											
Viking 0.23-11GS	111	CONV	35.3	28.2	8 <sup>.</sup> 9*	98	36.0	19.9 24	1,1 41	.7 T.	5 38.7	2953	29402											
Viking O.82-14P	114	CONV	35.1	28.3	9.9 *	92	86.6	19.7 24	45 45	5.5 7.4	41.3	3222	32187											
AVERAGE			36.0	27.3	9.6	96	86.3	20.4 26	§.0 47	.1 7.7	7 37.6	3041	29362											
HIGHEST			56.3	30.8	10.6	100	88.1	24.5 25	.4 52	2.3 8.3	3 42.5	3365	34452											
LOWEST			31.9	15.9	8.9	91	82.7	18.3 25	36 38	8.8 7.4	1 30.1	2400	21313											
CV (%)			6.2	9.1	9.3	9	2.2	12.0 11	.5 16	.6 6.4	t 11.3	11	16											
LSD (5%)			2.7	2.9	1.1	9	2.2	2.9 3.	9	.3 0.6	5.0	387	5482											

TABLE 7E.

### HURON, INGHAM & OTTAWA COUNTY SILAGE TRIALS - EARLY (104 Day and Earlier)

ZONE 2 - 3

	<b>MILK 2006</b>	MK/T MK/A																										
		STR																										
		с,																										
	۲	DFD																										
γ	QUAL	DF																										
on - Ea	%	JF N																										
Huro		/D A																										
		∠ 2																										
		A %S																										
	IELD	DT/																										
		GT/A																										
		WD%																										
	2006	MK/A	30073	26905	29874	27949	26568	25177	27891	26234	30503	28307	30000	29472	24406	30240	26905	28304	29384	27546	27384	26918	27880	27996	30503	24406	16	3663
	MILK	MK/T	3668	3301	3447	3418	3475	3113	3424	3324	3408	3506	3398	3138	3239	3395	3418	3359	3434	3182	3338	3431	3424	3373	3668	3113	10	278
		STR	42.3	34.5	38.3	38.9	40.5	35.4	39.2	36.2	37.6	39.1	39.2	37.7	37.4	39.6	37.1	38.2	41.4	35.8	35.9	38.1	38.6	38.1	42.3	34.5	11.6	3.7
		С	7.5	7.9	7.2	7.5	6.8	7.6	7.7	7.4	7.0	8.0	7.1	7.1	7.8	7.4	7.7	7.3	7.4	7.7	7.4	7.8	7.6	7.5	8.0	6.8	5.7	0.4
Ш	ΓITY	NDFD	63.7	63.8	62.6	60.1	60.4	54.8	58.1	58.2	61.6	61.0	57.6	48.9	53.4	54.8	59.2	58.5	54.6	55.4	60.8	59.0	59.3	58.4	63.8	48.9	18.6	0.0
AVERA	% QU⊿	NDF	27.3	29.5	29.0	26.4	27.0	27.7	27.0	29.6	28.8	27.5	27.4	27.2	27.0	27.4	29.5	28.0	25.0	28.7	30.4	28.3	27.2	27.9	30.4	25.0	13.8	3.2
TRIAL		ADF	17.0	19.8	19.5	18.7	18.0	19.6	17.7	20.5	19.1	18.5	18.9	20.6	19.4	20.0	19.7	19.6	17.4	20.3	20.3	19.2	18.2	19.1	20.6	17.0	13.1	2.1
Early		Z	90.1	89.5	89.4	89.8	89.7	87.8	88.8	88.0	89.4	89.3	88.8	86.5	87.6	87.7	88.1	88.5	88.9	87.3	88.2	88.7	89.3	88.6	90.1	86.5	2.4	1.8
		%STD	94	98	66	101	66	100	98	66	66	96	100	101	94	98	100	97	98	66	101	101	93	98	101	93	4	e
	Q.	DT/A	3.2	3.2	8.7 *	3.2	.6	3.0	3.1	8.	* 6.8	3.1	3.7 *	9.3 **	.5	* 6.8	6.7	3.4	3.6 *	3.6 *	3.2	6.7	5.1	5.3		.5	9.5	.7
	YIEL	T/A	1.1	2.0	1.0	0.1	9.2	9.9	0.0	9.6	1.7	0.1	1.1	3.3	8.0	1.9	8.5	1.4	1.4	0.4	9.7	8.9	9.8	0.4 8	3.3	8.0	9.4 9	9.
		DM G	9.0 2	7.2 2	1.6 2	1.0 2	0.2 1	0.5 1	0.9 2	9.4 1	1.2 2	0.5 2	1.5 2	9.8 2	2.3 1	0.6 2	2.9 1	9.7 2	0.4 2	2.5 2	1.7 1	1.8 1	0.9 1	0.7 2	2.9 2	7.2 1	3.5	6
_		т %	õ	ŝ	4	4	RIB 4	IB 4	4	Z-3	RIB 4	4	RIB 4	õ	4	4	4	č o	4	4	4	4	4	4	4	ŝ	ω	
		TRAI	Ø	Ø	Ø	Ø	VT2PF	STXR	D	3122 E	VT2PF	0	VT2PF	ΡW	0	VT2F	D2	VT2F	VT2F	D2	D2	5	CON					
		RM	96	102	98	100	100	102	102	104	100	66	102	102	95	66	100	101	102	104	66	66	104					
	2022	RAND / HYBRID	airyland Seed DS-3601Q	airyland Seed HiDF-3802Q	airyland Seed HiDF-3855Q	airyland Seed HiDF-4073Q	Nyna-Gro Seed D40VC41	Nyna-Gro Seed D41SS60	30Iden Harvest G02K39-5122	30Iden Harvest G04S19-3122	egacy Seeds LC-4248 VT2P	egacy Seeds LC493-21 5122	egacy Seeds LC-5217 VT2P	egacy Seeds LC525-21 PW	G Seeds LG45C21-5122	G Seeds LG49C28-VT2	G Seeds LG50C93-5222	G Seeds LG51C62-VT2	G Seeds LG52C42-VT2	G Seeds LG54C11-5222	IK Seeds NK9922-5222	IK Seeds NK9991-5122	fiking O.51-04P	VERAGE	IIGHEST	OWEST	(%) /:	SD (5%)

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

			_				juj	jham - I	Early					_					Ottaw	a - Earl	~				
2022					IELD				% QUA	ГПΥ		W	<b>ILK 2006</b>			<b>YIELD</b>				S %	QUALITY			MIL	K 2006
BRAND / HYBRID	RM	TRAIT	%DM	GT/A	DT/A	%STD	₽	ADF	NDF	NDFD	CP S	TR MK	T MK/	A %D	M GT/	A DT,	IA %S	TD IVI	DA O	F ND	F NDF	D C	STR	MK/T	MK/A
Dairyland Seed DS-3601Q	96	ø	41.6	19.7	8.2	94	90.2	15.4	26.5	63.5	7.9 44	4.0 37t	39 3103	31 36.4	1 22.5	5 8.2	6	4 90.	1 18.	6 28.	1 64.	0.7.0	40.6	3568	29116
Dairyland Seed HiDF-3802Q	102	ø	38.7	21.7	8.4	96	89.4	20.1	30.2	64.7	8.0 3	1.5 314	19 2637	77 35.8	3 22.	3 7.9	б	9 89.	6 19.	6 28.	9 62.9	7.7 6	37.4	3453	27432
Dairyland Seed HiDF-3855Q	98	Ø	45.0	19.8	8.9 *	66	90.06	19.9	30.6	66.6	7.5 3(	5.6 34(	33 3077	75 38.3	3 22.	1 8.4	э́б *	9 88.	9 19.	2 27.	3 58.	7 6.9	40.0	3431	28974
Dairyland Seed HiDF-4073Q	100	Ø	42.3	18.5	7.8	100	90.2	19.5	30.2	66.9	7.8 3!	5.8 352	24 2723	33 39.8	3 21.8	3 8.6	* 10	1 89.	4 17.	8 22.0	6 53.	3 7.2	41.9	3311	28666
Dyna-Gro Seed D40VC41	100 \	<b>T2PRIB</b>	37.2	20.3	7.6	66	90.2	18.6	29.3	66.3	6.9 38	3.2 34(	34 2617	70 43.5	3 18.	1 7.7	6	9 89.	2 17.	4 24.	7 54.	5 6.7	42.9	3487	26966
Dyna-Gro Seed D41SS60	102	STXRIB	43.2	19.4	8.4	100	88.8	19.4	29.3	61.5	8.0 3!	5.1 33;	31 2786	37 37.5	7 20.	3 7.7	10	1 86.	7 19.	.9 26.	2 48.	1 7.2	35.6	2895	22466
Golden Harvest G02K39-5122	102	5	42.2	19.0	8.0	66	89.6	18.3	28.1	63.0	7.9 3(	5.4 335	38 2704	12 39.5	5 21.	1 8.3	<i>б</i>	88.	1 17.	.1 25.	8 53.	2 7.5	42.1	3450	28741
Golden Harvest G04S19-3122	104 3	:122 E-Z	40.3	20.3	8.2	66	89.0	21.7	33.3	66.8	7.9 32	2.6 34:	36 2809	<b>31 38.</b>	3 19.6	3 7.5	6	9 87.	1 19.	4 25.	9 49.	5 7.0	39.7	3212	24377
Legacy Seeds LC-4248 VT2P	100 \	T2PRIB	40.3	21.2	8.5	86	89.2	21.8	33.8	67.9	7.4 3(	0.6 328	34 2824	16 42.	1 22.	1 9.3	** 10	0 89.	5 16.	4 23.	9 55.3	3 6.5	44.6	3531	32761
Legacy Seeds LC493-21 5122	66	Б	42.6	19.0	8.1	67	89.4	18.5	28.3	62.5	8.2 3	7.4 345	37 2805	<u></u> 38.₄	1 21.	1 8.1	ര്	5 89.	2 18.	5 26.	7 59.	5 7.7	40.7	3514	28521
Legacy Seeds LC-5217 VT2P	102 \	T2PRIB	42.7	20.9	8.9 *	66	91.0	18.3	30.3	69.7	7.6 3	3.5 374	11 3347	74 40.3	3 21.	3 8.5	* 10	1 86.	7 19.	5 24.	5 45.	4 6.7	39.8	3055	26525
Legacy Seeds LC525-21 PW	102	PW	41.1	24.0	9.8 **	101	88.2	19.8	28.7	58.3	7.7 3.	7.2 338	36 3315	30 38.6	3 22.	7 8.8	* 10	1 84.	7 21.	4 25.	7 39.	5 6.6	38.3	2891	25754
LG Seeds LG45C21-5122	95	Б	42.4	18.1	7.6	93	89.0	19.2	29.3	62.4	8.4 3!	5.3 335	34 2568	39 42.2	2 17.5	3 7.5	ъ	4 86.	3 19.	7 24.	8 44.	5 7.2	39.6	3084	23123
LG Seeds LG49C28-VT2	66	VT2P	44.8	20.7	9.3 *	97	89.8	18.9	29.2	64.6	7.7 3.	7.2 348	37 3247	77 36.4	1 23.	2 8.4	۰ 6	9 85.	7 21.	0 25.	7 45.0	0 7.1	42.0	3303	28003
LG Seeds LG50C93-5222	100	D2	43.2	18.7	8.1	101	88.2	20.6	31.6	62.5	8.1 32	4.6 343	33 276£	57 42.7	7 18.2	2 7.7	10	0 88.	0 18.	.9 27.	4 55.	9 7.3	39.6	3402	26154
LG Seeds LG51C62-VT2	101	VT2P	39.7	20.9	8.2	97	89.3	18.9	28.9	62.9	7.6 3.	7.4 348	38 286 <del>6</del>	35 39.6	3 21.	3 8.6	*	7 87.	6 20.	3 27.	2 54.0	0 6.9	39.1	3231	27924
LG Seeds LG52C42-VT2	102	VT2P	39.9	21.3	8.4	97	90.8	16.7	26.7	65.1	7.9 4	1.1 36	35 3095	33 40.5	3 21.(	3 8.7	*	3 87.	0 18.	1 23.	3 44.0	0.7.0	41.7	3173	27775
LG Seeds LG54C11-5222	104	D2	43.8	19.6	8.5	66	87.7	20.0	29.0	57.6	7.9 3!	5.5 325	59 2802	26 41.2	21.	2 8.7	۰ 6 *	9 86.	9 20.	5 28.	4 53.	2 7.5	36.1	3106	27065
NK Seeds NK9922-5222	66	D2	45.3	19.0	8.6	101	90.3	18.6	30.7	68.3	8.1 3(	5.8 36(	77 3091	16 38.2	2 20.4	1 7.8	10	1 86.	2 22.	.0 30.	0 53.3	3 6.7	35.1	3069	23851
NK Seeds NK9991-5122	66	Б	43.3	18.3	7.9	100	88.3	20.5	30.6	61.5	8.2 34	4.5 33(	37 2658	31 40.2	2 19.5	5 7.8	10	2 89.	0 18.	0 26.	1 56.	5 7.3	41.7	3495	27254
Viking O.51-04P	104	CONV	41.2	19.1	7.9	97	89.5	18.1	27.9	62.2	8.2 3.	7.3 34(	32 2742	22 40.7	7 20.6	3 8.4	* 8	3 89.	0 18.	3 26.	5 56.4	4 7.0	39.9	3386	28337
AVERAGE			41.9	20.0	8.3	98	89.4	19.2	29.6	64.0	7.9 3(	5.4 34	<u>59 2886</u>	50 39.6	3 20.5	3 8.2	36 1	3 87.	8 19.	.1 26.	2 52.	7 7.1	39.9	3288	27132
HIGHEST			45.3	24.0	9.8	101	91.0	21.8	33.8	69.7	8.4 44	4.0 37t	39 3347	74 43.	3 23.	2 9.3	10	2 90.	1 22.	.0 30.	0 64.	7.7 0	44.6	3568	32761
LOWEST			37.2	18.1	7.6	93	87.7	15.4	26.5	57.6	6.9 3(	J.6 31₄	19 2566	39 35.8	3 17.5	9 7.5	8	3 84.	7 16.	4 22.0	6 39.	5 6.5	35.1	2891	22466
CV (%)			8.2	8.9	9.8	4	2.1	10.8	10.0	9.9	5.2 1(	7. 0.C	13	8.8	9.6	9.1	4	2.7	7 15.	0 14.	0 20.3	3 6.4	12.3	11	17
LSD (5%)		_	4.1	2.1	1.0	4	2.2	2.5	3.5	7.5	0.5 4	.6 28	7 446	7 4.1	2.4	0.9	5	2.8	Э.	4.3	3 12.0	6 0.5	5.8	431	5525

### ZONE 2 - 3

### HURON, INGHAM & OTTAWA COUNTY SILAGE TRIALS - LATE (105 Day and Later)

TABLE 7L.

	MILK 2006	MK/T MK/A																												
		STR																												
		<del>С</del>																												
	\LITY	NDFD																												
Late	% QU/	NDF																												
uron -		ADF																												
т		۵N																												
		%STD																												
	_	T/A																												
	YIELI																													
		M GT																												
_		<b>0%</b>																												
	2006	MK/A	28112	30459	29982	27079	28900	29132	31065	24333	24966	24952	27968	25389	30348	25333	27207	31167	27144	27379	27470	29402	27707	28134	27352	27869	31167	24333	14	3236
	MILK	MK/T	3590	3502	3475	3539	3592	3372	3505	3231	3124	3128	3409	3284	3289	3350	3320	3426	3311	3201	3207	3374	3448	3353	3556	3373	3592	3124	11	300
		STR	39.6	38.8	37.1	42.8	37.4	39.3	39.3	36.7	33.5	35.0	39.0	38.3	38.8	37.4	35.7	36.0	38.8	35.7	38.8	36.7	39.3	37.3	39.6	37.9	42.8	33.5	11.7	3.7
		сь	7.9	7.9	8.4	8.5	8.2	7.9	7.7	8.2	8.0	7.8	8.2	8.2	7.8	8.4	7.9	7.8	7.7	8.1	7.9	8.3 0.3	7.9	7.8	8.1	8.0	8.5	7.7	5.8	0.4
AGE	ΓΙΤΥ	NDFD	62.4	65.8	62.9	56.4	65.0	54.5	58.9	52.6	57.2	53.6	61.5	52.9	54.3	57.0	58.3	61.9	53.4	57.5	51.6	58.5	58.3	59.1	61.7	58.0	65.8	51.6	13.6	6.5
AVER	% QUA	NDF	27.3	28.8	29.3	25.5	30.2	26.1	27.8	27.3	32.4	28.7	26.5	26.0	26.7	27.6	29.1	30.5	26.6	28.8	26.0	27.4	27.1	28.6	27.4	27.9	32.4	25.5	7.4	1.7
TRIAL	-	ADF	18.3	18.7	19.5	16.6	19.2	18.4	18.7	20.0	22.2	20.9	17.9	19.6	19.0	19.1	20.2	20.2	19.1	19.9	18.7	18.9	18.1	19.0	18.3	19.2	22.2	16.6	13.2	2.1
Late -		۵N	89.6	90.1	89.3	89.8	89.7	88.7	89.3	87.1	86.3	87.0	89.6	87.7	88.2	88.3	87.9	88.6	88.1	88.0	88.0	88.5	88.9	88.7	89.5	88.6	90.1	86.3	2.3	1.7
		%STD	67	96	6	97	97	66	98	100	100	66	94	66	98	66	100	96	95	63	66	87	66	98	91	67	100	87	8	9
	Q	DT/A	7.8	3.7	9.3 *	7.7	3.1	8.3	9.8 **	7.5	3.0	7.6	3.2	7.7	3.5	2.6	3.3	9.1 *	3.2	3.5	3.6	3.1	3.1	8.4	7.7	3.3	9.8	7.5	0.3	7.0
	YIEL	T/A I	. 2.6	1.7	4.0	. 5.7	9.7	8.0	8.0	. 0.6	1.0	0.0	1.0	. 0.2	0.0	9.1	0.4	1.8	0.5	2.6	4.2	0.0	0.8	5.6		0.8	8.0	7.5	(7 1)	5.
		.9 MO	8.	1.	0.0	4	5	.0 2(	.3 2!	.9	5.2	.5 2(	.3	.5 2(	.7 2(	.6	.4 2(	.4 2	.1 2(	.0	.6	.0	.0 2(	8.	4.18	.0 2(	.4 2	.8	7 8	9
_		I% _	39	40	39	B 44	B 41	IB 40	IB 38	39	38	38	39	38	43	39	40	42	40	38	38	41	36	37	/ 42	40	44	37	œ.	2
		TRAIT	a	Ø	Ø	TRERI	STXRI	VT2PR	<b>VT2PR</b>	D2	D	5	D2	VT2P	5	STX	VT2P	VT2P	VT2P	STX	VT2P	STX	VT2P	STX	CONV					
		RM	105	105	110	105	108	110	112	110	112	105	108	109	107	108	107	112	113	115	115	107	108	110	108					
	2022	BRAND / HYBRID	Dairyland Seed DS-4510Q	Dairyland Seed HiDF-4545Q	Dairyland Seed HiDF-5000Q	Dyna-Gro Seed D45TC55	Dyna-Gro Seed D48SS50	Dyna-Gro Seed D50VC09	Dyna-Gro Seed D52DC82	Golden Harvest G10L16-522A	Golden Harvest G12S75-5122	Legacy Seeds LC555-21 5122	LG Seeds LG58C77-5222	LG Seeds LG59C72-VT2	NK Seeds NK0748-5122	Renk RK700SSTX	Renk RK710DGVT2P	Renk RK842VT2P	Renk RK895DGVT2P	Renk RK940SSTX	Renk RK945DGVT2P	Specialty Hybrids 37A901	Specialty Hybrids 38G252	Specialty Hybrids 40A662	Viking O.48-08P	AVERAGE	HIGHEST	LOWEST	CV (%)	LSD (5%)

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

2-Year Averages Available in online version at https://www.canr.msu.edu/varietytrials

								Inghan	ו - Late										0	ttawa -	Late					
2022					YIELD				% QUA	LITY			MILK 20	90		YIE	2			%	<b>GUALI</b>	۲۲		W	LK 2006	
BRAND / HYBRID	RM	TRAIT	WD%	GT/A	V DT/A	%STL	DVI (	ADF	NDF	NDFD	CP S	TR	1K/T N	AK/A	%DM	GT/A	DT/A	%STD	ß	ADF N	IDF NI	DFD (	CP ST	RK/	MK/A	
Dairyland Seed DS-4510Q	105	ø	40.9	18.3	7.5	97	91.0	19.3	31.1	71.0	8.3 3	6.2 3	3652 2	7467	38.7	21.0	8.1	98	88.2	17.4 2	3.5 5	3.8	.5 43.	0 3527	28756	
Dairyland Seed HiDF-4545Q	105	ø	41.7	21.3	8.9 *	** 98	92.1	18.0	30.9	74.1	8.0 3	9.0 3	3762 3	:3407	38.5	22.1	8.5	95	88.1	19.4 2	6.7 5	7.4	.8 38.	6 3242	27511	
Dairyland Seed HiDF-5000Q	110	ø	38.4	20.0	7.6	88	90.3	20.4	32.7	70.3	8.4 3	4.6 3	1637 2	7866	39.6	27.9	11.0 **	92	88.3	18.7 2	5.8 5	5.5	3.3 39.	5 3313	32099	
Dyna-Gro Seed D45TC55	105	TRERIB	45.4	15.5	7.1	97	92.3	16.8	30.4	74.4	8.9 4	1.3 3	1807 2	6837	43.4	19.4	8.4	97	87.4	16.5 2	0.6 3	8.5	8.1 44.	3 3271	27320	
Dyna-Gro Seed D48SS50	108	STXRIB	43.5	18.0	7.8	97	90.8	18.8	31.3	70.4	8.0 3	7.6 3	800 2	9725	39.6	21.3	8.3	98	88.7	19.7 2	9.1 5	9.6	3.4 37.	1 3384	28076	
Dyna-Gro Seed D50VC09	110	VT2PRIB	41.3	19.0	7.9 *	. 98	90.7	18.3	30.3	68.8	8.1 3	8.3 3	1735 2	9448	38.7	22.5	8.6	66	86.8	18.5 2	1.9 4	0.3	.7 40.	3 3008	28816	
Dyna-Gro Seed D52DC82	112	<b>VT2PRIB</b>	39.9	22.4	8.9 *	* 98	90.8	19.6	31.7	70.7	7.7 3	6.3 3	1714 3	3166	36.7	29.1	10.6 *	66	87.9	17.9 2	3.8 4	7.1 7	.7 42.	4 3296	28963	
Golden Harvest G10L16-5222A	110	D2	41.2	17.1	7.0	101	88.7	20.4	30.8	63.3	8.7 3	3.8 3.8	388 2	3860	38.7	20.9	8.1	66	85.6	19.6 2	3.9 4	2.0	.7 39.	9 3074	24806	
Golden Harvest G12S75-5122	112	D	39.3	19.5	7.7	100	88.8	20.9	32.6	65.0	8.6 3	4.6 3	<b>1489 2</b>	6640	37.6	22.5	8.4	66	83.8	23.6 3	\$2.2	9.4	.4 32.	5 2758	23293	
Legacy Seeds LC555-21 5122	105	D1	41.2	17.5	7.1	97	88.6	20.7	31.2	63.3	8.1 3	3.6 3	368 2	4016	35.8	22.5	8.1	101	85.3	21.1 2	6.2 4	3.9 7	.5 36.	4 2887	25888	
LG Seeds LG58C77-5222	108	D2	42.1	18.6	7.8	95	91.1	17.8	28.9	69.1	8.4 3	8.2 3	1652 2	8652	36.6	23.4	8.6	94	88.2	18.1 2	4.2 5	3.8	39.	7 3165	27285	
LG Seeds LG59C72-VT2	109	VT2P	41.2	18.0	7.4	66	88.4	20.5	29.2	60.2	8.8 3	5.2 3	1330 2	4859	35.8	22.4	8.0	98	87.1	18.7 2	2.9 4	5.6	.5 41.	5 3238	25919	
NK Seeds NK0748-5122	107	D1	49.7	16.7	8.3 *	. 97	90.8	17.6	29.4	68.3	8.1 3	9.8 3	1737 3	1087	37.7	23.3	8.7	100	85.7	20.5 2	3.9 4	0.2	.4 37.	8 2841	29609	
Renk RK700SSTX	108	STX	39.2	16.7	9.9	98	89.6	20.8	32.3	67.8	8.5 3	3.4 3	412 2	2280	40.1	21.6	8.6	66	87.1	17.4 2	2.9 4	6.2	3.3 41.	4 3286	28385	
Renk RK710DGVT2P	107	VT2P	40.7	18.3	7.4	98	89.5	19.8	31.6	66.5	8.5 3	4.2 3	1533 2	6227	40.1	22.6	9.1	101	86.2	20.6 2	6.7 5	0.2 7	.3 37.	3106	28187	
Renk RK842VT2P	112	VT2P	46.5	19.0	8.7 *	4 97	88.7	21.1	32.8	65.7	7.9 3	4.3 3	1512 3	0723	38.3	24.7	9.4	96	88.4	19.2 2	8.1 5	8.2	.8 37.	7 3340	31611	
Renk RK895DGVT2P	113	VT2P	42.2	19.4	8.2 *	, 96	90.0	19.1	30.1	66.5	8.1 3	7.0 3	1574 2	9291	38.0	21.6	8.2	94	86.2	19.1 2	3.1 4	0.2	.4 40.	7 3048	24997	
Renk RK940SSTX	115	STX	40.2	18.8	7.6	98	88.7	20.6	31.3	64.0	8.0 3	4.4 3	329 2	5391	35.8	26.5	9.5	87	87.4	19.3 2	6.3 5	1.1	3.2 37.	3074	29366	
Renk RK945DGVT2P	115	VT2P	40.5	20.4	8.2 *	, 66	90.3	18.8	29.7	67.2	8.2 3	7.3 3	477 2	8375	36.8	24.5	9.0	100	85.7	18.5 2	2.4 3	0.9	.6 40.	2937	26565	
Specialty Hybrids 37A901	107	STX	42.5	17.5	7.4	97	89.5	20.2	31.8	66.9	8.2 3	3.5 3.	465 2	5663	39.5	22.6	8.9	77	87.5	17.5 2	3.0 5	0.1	3.3 39.	9 3283	33141	
Specialty Hybrids 38G252	108	VT2P	39.7	18.5	7.3	98	91.0	18.0	30.3	70.3	8.6 3	7.9 3	3691 2	7073	38.3	23.0	8.8	101	86.7	18.3 2	3.9 4	6.4	.3 40.	7 3204	28342	
Specialty Hybrids 40A662	110	STX	40.4	19.5	× 6.7	66	90.6	18.7	31.8	70.2	7.7 3	8.0 3	3717 2	9319	35.2	25.7	9.0	97	86.8	19.2 2	5.5 4	8.1	36.36	7 2988	26949	
Viking O.48-08P	108	CONV	44.6	15.6	6.9	92	91.0	18.0	29.4	69.1	9.2 3	7.7 3	3727 2	5914	40.2	21.0	8.4	91	88.1	18.6 2	5.4 5	4.3	.0 41.	5 3385	28789	
AVERAGE			41.8	18.5	7.7	97	90.1	19.3	30.9	68.0	8.3 3	6.4 3	1587 2	,7708	38.2	23.1	8.8	96	87.0	19.0 2	4.9 4	8.2	.7 39.	4 3155	28029	
HIGHEST			49.7	22.4	8.9	101	92.3	21.1	32.8	74.4	9.2 4	1.3 3	3807 3	3407	43.4	29.1	11.0	101	88.7	23.6 3	2.2 5	9.6	8.4 44.	3527	33141	
LOWEST			38.4	15.5	9.9	88	88.4	16.8	28.9	60.2	7.7 3	3.4 3	1329 2	2280	35.2	19.4	8.0	77	83.8	16.5 2	0.6 3	6.0	.0 32.	5 2758	23293	
CV (%)			7.6	10.0	11.0	ო	2.0	10.7	7.6	8.7	6.3 1	0.7	9	13	9.8	7.7	9.8	10	2.7	15.3	9.8	9.6	5.2 12.	5 15	16	
LSD (5%)			3.8	2.2	1.0	4	2.1	2.4	2.8	7.0	9.0	1.6	248 4	4198	4.4	2.1	1.0	1	2.8	3.4	2.9 1	1.1	.5 5.8	220	5284	_

TABLE 8E.

## IOSCO, OSCEOLA & PRESOUE ISLE COUNTY SILAGE TRIALS - EARLY (97 Day and Earlier)

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TRIAL AVERAGE VIELD RUALITY MILK 2006 YIELD	TRIAL AVERAGE YIELD % QUALITY MILK 2006 YIELD	TRIAL AVERAGE YIELD % QUALITY MILK 2006 YIELD	TRIAL AVERAGE VIELD % QUALITY MILK 2006 YIELD	TRIAL AVERAGE % QUALITY MILK 2006 YIELD	TRIAL AVERAGE % QUALITY MILK 2006 YIELD	AVERAGE % QUALITY MILK 2006 YIELD	AGE QUALITY MILK 2006 YIELD	LY MILK 2006 YIELD	MILK 2006 YIELD	MILK 2006 YIELD	K 2006 YIELD	VIELD	YIELD	р	ľ		loso	o - Ear %	ly QUALIT			MILI	( 2006
RM TRAIT %DM GT/A DT/A %STD IVD ADF NDF NDFD CP STR MK/T MK/A	%DM GT/A DT/A %STD VD ADF NDF NDFD CP STR MK/T MK/A	GT/A DT/A %STD IVD ADF NDF NDFD CP STR MK/T MK/A	DT/A %STD IVD ADF NDF NDFD CP STR MK/T MK/A	%STD   IVD ADF NDF NDFD CP STR   MK/T MK/A   %	IVD ADF NDF NDFD CP STR MK/T MK/A %	DF NDF NDFD CP STR MK/T MK/A %	DF NDFD CP STR MK/T MK/A %	ED CP STR MK/T MK/A %	STR MK/T MK/A %	R MK/T MK/A %	MK/A %	%	DM	GT/A	DT/A %	STD I	VD A	DF NC	DF NDF	D CP	STR	MK/T	MK/A
91 Q 37.3 19.9 7.3 93 88.9 19.3 27.9 59.5 7.7 36.8 3328 24532 3	37.3 19.9 7.3 93 88.9 19.3 27.9 59.5 7.7 36.8 3328 24532 3	19.9 7.3 93 88.9 19.3 27.9 59.5 7.7 36.8 3328 24532 3	7.3 93 88.9 19.3 27.9 59.5 7.7 36.8 3328 24532 3	93 88.9 19.3 27.9 59.5 7.7 36.8 3328 24532 3	38.9 19.3 27.9 59.5 7.7 36.8 3328 24532 3	9.3 27.9 59.5 7.7 36.8 3328 24532 3	7.9 59.5 7.7 36.8 3328 24532 3	5 7.7 36.8 3328 24532 3	7 36.8 3328 24532 3	3 3328 24532 3	24532 3	Ś	2.8	22.0	7.2	93 9	0.4 1	3.2 27	.8 65.	1 8.5	35.5	3397	24644
96 Q 32.3 24.9 7.8 * 91 89.3 20.1 29.1 63.2 7.6 34.6 3230 24362 2	32.3 24.9 7.8* 91 89.3 20.1 29.1 63.2 7.6 34.6 3230 24362 2	24.9 7.8 * 91 89.3 20.1 29.1 63.2 7.6 34.6 3230 24362 2	7.8 * 91 89.3 20.1 29.1 63.2 7.6 34.6 3230 24362 2	91 89.3 20.1 29.1 63.2 7.6 34.6 3230 24362 2	89.3 20.1 29.1 63.2 7.6 34.6 3230 24362 2	0.1 29.1 63.2 7.6 34.6 3230 24362 2	9.1 63.2 7.6 34.6 3230 24362 2	2 7.6 34.6 3230 24362 2	5 34.6 3230 24362 2	3 3230 24362 2	24362 2	11	9.9	29.3	8.8 *	92 9	1.1	9.4 29	.8 70.	2 8.4	33.7	3391	29810
90 Q 36.3 20.3 7.2 96 90.0 19.0 28.6 65.1 7.7 37.3 3460 25046	36.3 20.3 7.2 96 90.0 19.0 28.6 65.1 7.7 37.3 3460 25046 3	20.3 7.2 96 90.0 19.0 28.6 65.1 7.7 37.3 3460 25046 3	7.2 96 90.0 19.0 28.6 65.1 7.7 37.3 3460 25046 3	96 90.0 19.0 28.6 65.1 7.7 37.3 3460 25046 3	90.0 19.0 28.6 65.1 7.7 37.3 3460 25046 3	9.0 28.6 65.1 7.7 37.3 3460 25046 3	3.6 65.1 7.7 37.3 3460 25046 3	1 7.7 37.3 3460 25046 3	7 37.3 3460 25046 3	3 3460 25046 3	25046 3	e	3.0	24.5	8.1 *	6 96	1.6	7.8 28	.2 69.	8.1	38.0	3670	29721
96 VT2PRIB 34.8 22.2 7.6 * 96 89.2 18.3 26.9 59.5 7.6 37.6 3322 25256 3	34.8 22.2 7.6 * 96 89.2 18.3 26.9 59.5 7.6 37.6 3322 25256 3	22.2 7.6 * 96 89.2 18.3 26.9 59.5 7.6 37.6 3322 25256 3	7.6 * 96 89.2 18.3 26.9 59.5 7.6 37.6 3322 25256 3	96 89.2 18.3 26.9 59.5 7.6 37.6 3322 25256 3	89.2 18.3 26.9 59.5 7.6 37.6 3322 25256 3	8.3 26.9 59.5 7.6 37.6 3322 25256 3	3.9 59.5 7.6 37.6 3322 25256 3	5 7.6 37.6 3322 25256 3	3 37.6 3322 25256 3	3322 25256 3	25256 3	õ	0.2	27.4	8.3 *	97 9	1.0	7.2 26	.8 66.	2 8.4	37.5	3509	29193
91 D2 31.9 23.0 7.3 96 87.9 21.0 29.4 58.0 7.8 32.5 3041 22956 2	31.9 23.0 7.3 96 87.9 21.0 29.4 58.0 7.8 32.5 3041 22956 2	23.0 7.3 96 87.9 21.0 29.4 58.0 7.8 32.5 3041 22956 2	7.3 96 87.9 21.0 29.4 58.0 7.8 32.5 3041 22956 2	96 87.9 21.0 29.4 58.0 7.8 32.5 3041 22956 2	87.9 21.0 29.4 58.0 7.8 32.5 3041 22956 2	1.0 29.4 58.0 7.8 32.5 3041 22956 2	3.4         58.0         7.8         32.5         3041         22956         2	0 7.8 32.5 3041 22956 2	3 32.5 3041 22956 2	5 3041 22956 2	22956 2	2	9.2	27.3	8.0 *	97 8	9.9 2	0.5 30	.4 66.1	8.3	32.1	3269	2604
95 VZ 34.4 22.9 7.8* 96 87.5 19.7 26.4 51.8 7.8 34.6 2957 24337 3	34.4 22.9 7.8* 96 87.5 19.7 26.4 51.8 7.8 34.6 2957 24337 3	22.9 7.8* 96 87.5 19.7 26.4 51.8 7.8 34.6 2957 24337 3	7.8* 96 87.5 19.7 26.4 51.8 7.8 34.6 2957 24337 3	96 87.5 19.7 26.4 51.8 7.8 34.6 2957 24337 3	87.5 19.7 26.4 51.8 7.8 34.6 2957 24337 3	9.7 26.4 51.8 7.8 34.6 2957 24337 3	3.4 51.8 7.8 34.6 2957 24337 3	8 7.8 34.6 2957 24337 3	3 34.6 2957 24337 3	3 2957 24337 3	24337 3	e	1.2	26.1	8.1 *	97 8	9.2 1	3.9 27	.0 59.	7 8.4	33.8	3114	2971
95 VT2PRIB 33.9 24.0 8.0 * 94 87.8 20.2 28.2 56.4 7.3 34.3 3045 24309	33.9 24.0 8.0 * 94 87.8 20.2 28.2 56.4 7.3 34.3 3045 24309	24.0 8.0 * 94 87.8 20.2 28.2 56.4 7.3 34.3 3045 24309	8.0 * 94 87.8 20.2 28.2 56.4 7.3 34.3 3045 24309	94 87.8 20.2 28.2 56.4 7.3 34.3 3045 24309	87.8 20.2 28.2 56.4 7.3 34.3 3045 24309	0.2 28.2 56.4 7.3 34.3 3045 24309	3.2 56.4 7.3 34.3 3045 24309	4 7.3 34.3 3045 24309	3 34.3 3045 24309	3 3045 24309	24309		31.3	28.5	8.9 **	93 8	9.3 1	7.8 25	.5 57.0	5 7.9	35.7	3112	27740
97 TRERIB 32.9 25.8 8.3 ** 95 88.1 20.7 30.0 59.8 7.3 33.2 3111 25881 3	32.9 25.8 8.3 ** 95 88.1 20.7 30.0 59.8 7.3 33.2 3111 25881 3	25.8 8.3 ** 95 88.1 20.7 30.0 59.8 7.3 33.2 3111 25881 3	8.3 ** 95 88.1 20.7 30.0 59.8 7.3 33.2 3111 25881 3	95 88.1 20.7 30.0 59.8 7.3 33.2 3111 25881 3	88.1 20.7 30.0 59.8 7.3 33.2 3111 25881 3	0.7 30.0 59.8 7.3 33.2 3111 25881 3	0.0 59.8 7.3 33.2 3111 25881 3	8 7.3 33.2 3111 25881 3	3 33.2 3111 25881 3	2 3111 25881 3	25881 3	ന	0.7	28.7	8.8 *	98 9		3.7 30	.2 70.	8.2	34.9	3548	31203
92 VZ 34.5 23.1 7.9* 94 88.1 19.1 26.2 54.4 7.7 36.5 3126 26306 3	34.5 23.1 7.9 * 94 88.1 19.1 26.2 54.4 7.7 36.5 3126 26306 3	23.1 7.9 * 94 88.1 19.1 26.2 54.4 7.7 36.5 3126 26306 3	7.9 * 94 88.1 19.1 26.2 54.4 7.7 36.5 3126 26306 3	94 88.1 19.1 26.2 54.4 7.7 36.5 3126 26306 3	88.1 19.1 26.2 54.4 7.7 36.5 3126 26306 3	9.1 26.2 54.4 7.7 36.5 3126 26306 3	3.2 54.4 7.7 36.5 3126 26306 3	4 7.7 36.5 3126 26306 3	7 36.5 3126 26306 3	3126 26306 3	26306 3	n	0.9	27.0	8.4 *	94 8	9.4	3.0 25	.4 57.	7 8.1	37.2	3245	27318
95 D1 33.6 21.7 7.2 93 88.1 20.5 29.5 59.4 8.0 33.6 3152 22909 31	33.6 21.7 7.2 93 88.1 20.5 29.5 59.4 8.0 33.6 3152 22909 31	21.7 7.2 93 88.1 20.5 29.5 59.4 8.0 33.6 3152 22909 31	7.2 93 88.1 20.5 29.5 59.4 8.0 33.6 3152 22909 31	93 88.1 20.5 29.5 59.4 8.0 33.6 3152 22909 31	<u>88.1 20.5 29.5 59.4 8.0 33.6 3152 22909 31</u>	<u>0.5 29.5 59.4 8.0 33.6 3152 22909 31</u>	<u>3.5 59.4 8.0 33.6 3152 22909 31</u>	<u>4 8.0 33.6 3152 22909 31</u>	33.6 3152 22909 31	3152 22909 31	22909 31	31	←.	26.3	8.2 *	94 9	0.0	3.2 27	.3 63.4	1 8.7	36.2	3395	2788
34.2 22.8 7.6 94 88.5 19.8 28.2 58.7 7.6 35.1 3177 24589 31	34.2 22.8 7.6 94 88.5 19.8 28.2 58.7 7.6 35.1 3177 24589 31	22.8 7.6 94 88.5 19.8 28.2 58.7 7.6 35.1 3177 24589 31	7.6 94 88.5 19.8 28.2 58.7 7.6 35.1 3177 24589 31	94 88.5 19.8 28.2 58.7 7.6 35.1 3177 24589 31	<u>38.5 19.8 28.2 58.7 7.6 35.1 3177 24589 31</u>	9.8 28.2 58.7 7.6 35.1 3177 24589 31	3.2 58.7 7.6 35.1 3177 24589 31	7 7.6 35.1 3177 24589 31	3 35.1 3177 24589 31	3177 24589 31	24589 31	31	o.	26.7	8.3	95 9	0.3 1	3.5 27	.8 64.	7 8.3	35.5	3365	2832
37.3 25.8 8.3 96 90.0 21.0 30.0 65.1 8.0 37.6 3460 26306 33.0	37.3 25.8 8.3 96 90.0 21.0 30.0 65.1 8.0 37.6 3460 26306 33.0	25.8 8.3 96 90.0 21.0 30.0 65.1 8.0 37.6 3460 26306 33.0	8.3 96 90.0 21.0 30.0 65.1 8.0 37.6 3460 26306 33.0	96 90.0 21.0 30.0 65.1 8.0 37.6 3460 26306 33.0	90.0 21.0 30.0 65.1 8.0 37.6 3460 26306 33.(	1.0 30.0 65.1 8.0 37.6 3460 26306 33.0	D.0 65.1 8.0 37.6 3460 26306 33.0	1 8.0 37.6 3460 26306 33.0	) 37.6 3460 26306 33.(	3 3460 26306 33.0	26306 33.0	33.(	~	29.3	8.9	98 98	1.6 2	0.5 30	.4 70.	8.7	. 38.0	3670	3120
31.9 19.9 7.2 91 87.5 18.3 26.2 51.8 7.3 32.5 2957 22909 29.2	31.9 19.9 7.2 91 87.5 18.3 26.2 51.8 7.3 32.5 2957 22909 29.2	19.9 7.2 91 87.5 18.3 26.2 51.8 7.3 32.5 2957 22909 29.2	7.2 91 87.5 18.3 26.2 51.8 7.3 32.5 2957 22909 29.2	91 87.5 18.3 26.2 51.8 7.3 32.5 2957 22909 29.2	87.5 18.3 26.2 51.8 7.3 32.5 2957 22909 29.2	8.3 26.2 51.8 7.3 32.5 2957 22909 29.2	3.2 51.8 7.3 32.5 2957 22909 29.2	8 7.3 32.5 2957 22909 29.2	3 32.5 2957 22909 29.2	5 2957 22909 29.2	22909 29.2	29.2	~ .	22.0	7.2	92 8	9.2 1	7.2 25	.4 57.0	5 7.9	32.1	3112	2464
6.6 19.4 13.0 5 2.7 19.2 16.5 13.5 13.3 22.1 9 13 7.8	6.6 19.4 13.0 5 2.7 19.2 16.5 13.5 13.3 22.1 9 13 7.8	19.4 13.0 5 2.7 19.2 16.5 13.5 13.3 22.1 9 13 7.8	13.0 5 2.7 19.2 16.5 13.5 13.3 22.1 9 13 7.8	5 2.7 19.2 16.5 13.5 13.3 22.1 9 13 7.8	2.7 19.2 16.5 13.5 13.3 22.1 9 13 7.8	9.2 16.5 13.5 13.3 22.1 9 13 7.8	3.5 13.5 13.3 22.1 9 13 7.8	5 13.3 22.1 9 13 7.8	3 22.1 9 13 7.8	1 9 13 7.8	13 7.8	7.8		4.6	9.8	5	8	1.4 9.	5 9.6	5.0	11.9	<b>б</b>	15
1.5 3.0 0.7 3 1.6 2.6 3.2 5.4 0.7 5.3 192 2201 2.9	1.5 3.0 0.7 3 1.6 2.6 3.2 5.4 0.7 5.3 192 2201 2.9	3.0 0.7 3 1.6 2.6 3.2 5.4 0.7 5.3 192 2201 2.9	0.7 3 1.6 2.6 3.2 5.4 0.7 5.3 192 2201 2.9	3 1.6 2.6 3.2 5.4 0.7 5.3 192 2201 2.9	1.6 2.6 3.2 5.4 0.7 5.3 192 2201 2.9	2.6 3.2 5.4 0.7 5.3 192 2201 2.9	.2 5.4 0.7 5.3 192 2201 2.9	4 0.7 5.3 192 2201 2.9	7 5.3 192 2201 2.9	192 2201 2.9	2201 2.9	2.9		1.5	1.0	2	0	.5 3.	2 7.7	0.5	5.1	367	5276
											-					•							

\*\* Highest Yielding Hybrid

\* Not Significantly Different from Highest Yielding Hybrid

### 2-Year Averages Available in online version at https://www.canr.msu.edu/varietytrials

34																
-								Pres	due Isl	e - Earl	×					
	2022				×	ELD				% QU/	ALITY			MILK	2006	
	BRAND / HYBRID	RM	TRAIT	%DM	GT/A	DT/A	%STD	۵N	ADF	NDF	NDFD	СЬ	STR	MK/T	MK/A	_
	Dairyland Seed DS-3162Q	91	ø	34.7	21.5	7.4	93	86.9	23.9	33.2	60.5	8.3	28.9	2996	22196	_
	Dairyland Seed DS-3601Q	96	ø	29.3	27.6	8.1 *	91	86.2	25.0	33.7	58.9	8.2	25.1	2675	21542	
	Dairyland Seed HiDF-3044Q	06	ø	36.6	19.9	7.1	95	86.8	25.0	35.3	62.6	8.4	26.4	2944	20929	
	Dyna-Gro Seed D36VC66	96	VT2PRIB	34.9	22.3	7.8	93	86.9	21.9	30.4	56.1	7.9	31.9	2997	23592	
	Golden Harvest G91V51-5222A	91	D2	31.0	22.9	7.1	94	85.8	25.0	33.7	57.8	8.2	24.9	2644	21117	
	Golden Harvest G95D32-3220	95	ZΛ	33.1	24.1	8.0	95	86.6	22.5	30.0	54.3	8.3	28.7	2722	21531	_
	Legacy Seeds LC451-21 VT2P	95	<b>VT2PRIB</b>	32.7	24.8	8.1 *	95	85.4	24.9	33.4	55.6	7.8	26.0	2648	21359	
	Legacy Seeds LC474-20 TRE	97	TRERIB	30.6	29.2	8.9 **	95	86.0	23.4	31.9	55.2	8.1	27.0	2673	23802	
	LG Seeds LG42C37-3220	92	٨Z	33.5	23.9	8.0	92	86.7	21.9	29.2	54.1	8.3	30.7	2837	25675	
	LG Seeds LG45C21-5122	95	D1	33.6	22.0	7.4	95	85.2	25.4	34.7	56.4	8.7	24.4	2667	20310	
	AVERAGE			33.0	23.8	7.8	94	86.2	23.9	32.5	57.2	8.2	27.4	2780	22205	
	HIGHEST			36.6	29.2	8.9	95	86.9	25.4	35.3	62.6	8.7	31.9	2997	25675	
	LOWEST			29.3	19.9	7.1	91	85.2	21.9	29.2	54.1	7.8	24.4	2644	20310	
	CV (%)			6.0	10.3	9.0	4	2.0	9.5	9.8	12.2	6.4	15.3	11	13	_
	LSD (5%)			2.4	3.0	0.8	5	2.1	2.7	3.9	8.4	0.6	5.1	366	3494	

21767 23829 23829 25925 20535 20535 20535 26755 20535

3386 3766 3035

42.5 47.6 37.6

54.3 62.8

24.3 28.0 22.4

17.1 19.9

88.9 91.7 86.9 1.5 1.5

6.4 7.0 5.7 6.0 0.5

41.4 7.1 4.6

94 97 5 5

6.8 7.3 6.1 0.8

17.8 19.5 16.2 8.9 1.9

35.4 6.1 2.9

38.5 44.3

3035 3373 3112 3295 3395

6.8 41.2 6.1 41.3 5.7 37.6 6.6 41.6 6.7 40.1

56.1 53.7 51.5 58.3

22.4 25.6 28.0 24.1 26.4

86.9 17.8 88.8 17.9 87.1 19.9 88.3 17.5 89.0 18.0

97 93 95 89

7.1 \* 7.1 \* 7.3 \*\* 7.2 \* 6.1

39.0 37.6 37.3 39.2 36.1

16.6 19.0 19.0 18.4 19.5 16.8 16.8

3138

282

8.9 4.5

9.5 2.8

14.3 11.1 2.3

26755 21732 24487 22982 21712

3592 3622 3766 3462 3210

46.1 45.1 47.6 43.4

22.7 23.8 22.4 23.4

94 97 97 97

6.5 \* 6.6 \* 6.7 \*

39.2 39.4

35.4

37.7 44.3

52.7 60.5

15.8 16.0 91.7 14.3 89.8 15.7

89.3 90.6

6.7 6.4 6.1 6.4

62.8 56.4

7.0 40.6

49.5

24.0

87.9 17.6

41.4

MK/T MK/A **MILK 2006** 

STR

СЬ

IVD ADF NDF NDFD

%STD

DT/A 7.2 \* 6.7 \*

%DM

YIELD GT/A 16.2 17.8

Wexford - Early % QUALITY

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

TABLE 8L.

## IOSCO, OSCEOLA & PRESQUE ISLE COUNTY SILAGE TRIALS - LATE (98 Day and Later)

TIELD         ** GUALLIT         MILL 2000           VIELU         ** GUALLIT         ** GUALLIT         MILL 2000           31.1         27.0         B4**         99         90.7         7.8         31.6         3168         2550           31.1         27.0         8.4*         100         90.7         7.8         31.6         3168         25550           31.5         7.1         8.1*         100         90.7         7.8         3.6         3168         25550           31.5         7.1         8.7*         100         90.7         7.8         3.6         33.8         27013           29.7         26.9         8.7*         100         89.7         19.1         30.4         69.2         8.4         3.74         27665           29.7         26.9         8.1*         90.5         21.2         32.7         71.0         8.4         27.6           33.6         24.8         8.3         30.6         60.3         7.4         30.7         27083           33.6         24.8         8.3         30.6         66.7         8.1         3146         25550           31.1         26.1         8.1         8		TRIAL AVERAGE	TRIAL AVERAGE		TRIAL AVERAGE	TRIAL AVERAGE	AVERAGE	AGE			0000 /1 111	0000	_			c	-	los	- L	ate			-	0000 /1 1
MKIA         %DM         GT/A         %STD         IVD         ADF         NDF         NDF         CP         STR         MK/T         MK/T <th>YIELD YIELD % QUALITY MILK 2</th> <th>YIELD % QUALITY MILK 2</th> <th>YIELD % QUALITY MILK 2</th> <th>ELD % QUALITY MILK 2</th> <th>% QUALITY MILK 2</th> <th>% QUALITY MILK 2</th> <th>% QUALITY MILK 2</th> <th>QUALITY MILK 2</th> <th>Y MILK 2</th> <th>MILK 2</th> <th>MILK 2</th> <th>2</th> <th>900</th> <th></th> <th>ΥE</th> <th>q</th> <th></th> <th></th> <th>%</th> <th>QUAL</th> <th>LΤ</th> <th></th> <th>2</th> <th>ILK 2006</th>	YIELD YIELD % QUALITY MILK 2	YIELD % QUALITY MILK 2	YIELD % QUALITY MILK 2	ELD % QUALITY MILK 2	% QUALITY MILK 2	% QUALITY MILK 2	% QUALITY MILK 2	QUALITY MILK 2	Y MILK 2	MILK 2	MILK 2	2	900		ΥE	q			%	QUAL	LΤ		2	ILK 2006
23945         31.1         27.0         8.4*         99         90.1         20.3         30.5         67.4         7.8         31.6         3168         25350           25691         31.5         27.4         8.7*         100         90.7         17.8         27.3         64.7         8.0         35.6         3338         28793           24261         292         298         8.7*         100         89.7         19.3         28.7         64.0         7.6         33.3         3174         27655           24564         292         28.9         9.7         19.1         30.4         69.2         8.4         3.390         27013           24563         33.6         28.4         98         90.5         21.2         32.7         71.0         8.4         2765           24019         31.1         28.2         8.1         91.5         91.5         91.5         91.5         191.3         31.1         2703           24019         31.1         28.2         8.8         100         91.5         191.3         31.1         2708         3077         2708           24013         31.1         28.2         8.4         18.8         27	RM TRAIT %DM GT/A DT/A %STD IVD ADF NDF NDFD CP STR MK/T	%DM GT/A DT/A %STD IVD ADF NDF NDFD CP STR MK/T	GT/A DT/A %STD IVD ADF NDF NDFD CP STR MK/T	DT/A %STD IVD ADF NDF NDFD CP STR MK/T	STD IVD ADF NDF NDFD CP STR MK/T	VD ADF NDF NDFD CP STR MK/T	DF NDF NDFD CP STR MK/T	DF NDFD CP STR MK/T	D CP STR MK/T	STR MK/T	MK/T		MK/A	%DM 0	ST/A I	0T/A %	STD I	VD A	DF N	DF NI	DFD C	S SI	rr mi	(/T MK/A
25691         31.5         27.4         8.7         100         90.7         17.8         27.3         64.7         8.0         33.8         28793           24261         29.2         29.8         8.7         100         89.7         19.3         28.7         64.0         7.6         33.3         3174         27665           23350         29.7         26.9         8.0         97         19.3         28.7         64.0         7.6         33.3         3174         27665           23350         29.7         26.9         8.0         90.5         21.2         32.7         71.0         8.4         27.5         3122         25199           24584         28.0         8.7         90.5         21.2         32.7         71.0         8.4         27.5         5129         2519         27013         2519         3712         2519         3712         2519         3712         2519         3712         2519         3712         2519         3712         2519         3712         2519         3712         2519         3712         2519         3712         2519         3712         2519         3712         2519         3712         2519         3712	98 Q 33.3 24.8 8.1 ** 97 89.0 20.2 29.1 62.0 7.2 34.2 3181	33.3 24.8 8.1 ** 97 89.0 20.2 29.1 62.0 7.2 34.2 3181	24.8 8.1 ** 97 89.0 20.2 29.1 62.0 7.2 34.2 3181	8.1 ** 97 89.0 20.2 29.1 62.0 7.2 34.2 3181	97 89.0 20.2 29.1 62.0 7.2 34.2 3181	39.0 20.2 29.1 62.0 7.2 34.2 3181	0.2 29.1 62.0 7.2 34.2 3181	9.1 62.0 7.2 34.2 3181	0 7.2 34.2 3181	34.2 3181	3181		23945	31.1	27.0 8	* 4.	6 66	0.1 2	0.3 3	0.5 6	7.4 7	.8	.6 31	68 2535C
24261         29.2         29.8         8.7         100         89.7         19.3         28.7         64.0         7.6         33.3         3174         27661           23350         29.7         26.9         8.0         97         90.7         19.1         30.4         69.2         8.4         32.8         3390         2701           2484         28.0         8.9         90.5         21.2         32.7         71.0         8.4         27.5         3122         25191           2484         28.0         8.9         90.5         21.2         32.7         71.0         8.4         27.5         3122         25191         2701           22835         33.6         24.1         8.9         90.5         21.2         32.7         71.0         8.4         27.5         51.9         24697           22870         31.1         26.1         8.1         9.1         6.0.3         7.4         30.2         2944         2553           22010         31.1         26.1         8.1         8.7         57.2         57.8         8.3         3146         2553           22870         31.1         26.1         8.3         31.6         50.3 <td>100 Q 32.1 24.8 7.9 * 98 90.0 19.4 29.5 64.8 7.3 34.4 3294</td> <td>32.1 24.8 7.9 * 98 90.0 19.4 29.5 64.8 7.3 34.4 3294</td> <td>24.8 7.9 * 98 90.0 19.4 29.5 64.8 7.3 34.4 3294</td> <td>7.9 * 98 90.0 19.4 29.5 64.8 7.3 34.4 3294</td> <td>98 90.0 19.4 29.5 64.8 7.3 34.4 3294</td> <td>0.0 19.4 29.5 64.8 7.3 34.4 3294</td> <td>9.4 29.5 64.8 7.3 34.4 3294</td> <td>9.5 64.8 7.3 34.4 3294</td> <td>8 7.3 34.4 3294</td> <td>34.4 3294</td> <td>3294</td> <td></td> <td>25691</td> <td>31.5</td> <td>27.4 8</td> <td>* L.</td> <td>100 9</td> <td>0.7 1</td> <td>7.8 2</td> <td>7.3 6.</td> <td>4.7 8</td> <td>35</td> <td>5.6 33</td> <td>38 2879;</td>	100 Q 32.1 24.8 7.9 * 98 90.0 19.4 29.5 64.8 7.3 34.4 3294	32.1 24.8 7.9 * 98 90.0 19.4 29.5 64.8 7.3 34.4 3294	24.8 7.9 * 98 90.0 19.4 29.5 64.8 7.3 34.4 3294	7.9 * 98 90.0 19.4 29.5 64.8 7.3 34.4 3294	98 90.0 19.4 29.5 64.8 7.3 34.4 3294	0.0 19.4 29.5 64.8 7.3 34.4 3294	9.4 29.5 64.8 7.3 34.4 3294	9.5 64.8 7.3 34.4 3294	8 7.3 34.4 3294	34.4 3294	3294		25691	31.5	27.4 8	* L.	100 9	0.7 1	7.8 2	7.3 6.	4.7 8	35	5.6 33	38 2879;
23350         29.7         90.7         19.1         30.4         69.2         8.4         32.8         3390         2701           24584         28.0         28.9         8.1*         98         90.5         21.2         32.7         71.0         8.4         27.5         3122         2519           24584         28.0         28.1*         98         90.5         21.2         32.7         71.0         8.4         27.5         3122         25419           22035         33.5         24.8         83.4         90.5         21.2         32.7         71.0         8.4         27.5         3122         2541         2469           22040         31.1         26.1         8.1*         99         89.4         19.6         30.5         64.3         30.8         3146         2553           20870         28.1         27.1         89         99.1         19.6         29.0         31.1         2316         2552           20870         28.1         27.1         8.2         91.5         19.3         31.1         25.6         90.3         3146         2553           20871         28.1         27.1         8.2         91.5         19	100 VT2PRIB 31.4 26.2 8.1 ** 97 88.1 20.7 29.1 58.4 7.0 32.9 3016	31.4 26.2 8.1 ** 97 88.1 20.7 29.1 58.4 7.0 32.9 3016	26.2 8.1 ** 97 88.1 20.7 29.1 58.4 7.0 32.9 3016	8.1 ** 97 88.1 20.7 29.1 58.4 7.0 32.9 3016	97 88.1 20.7 29.1 58.4 7.0 32.9 3016	88.1 20.7 29.1 58.4 7.0 32.9 3016	0.7 29.1 58.4 7.0 32.9 3016	9.1 58.4 7.0 32.9 3016	4 7.0 32.9 3016	32.9 3016	3016		24261	29.2	29.8	* 7.	100 8	9.7 1	9.3 2	8.7 6	4.0 7	.6	3.3 31	74 2766
4         24584         28.0         28.1*         98         90.5         21.2         32.7         71.0         8.4         27.5         3122         2519           7         228355         33.6         24.8         8.3*         96         87.9         20.9         30.6         60.3         7.4         30.2         2944         2469           7         228355         33.6         24.8         8.3*         96         87.9         20.9         30.6         60.3         7.4         30.2         2944         2469           2         24019         31.1         28.2         58.8         88.6         18.8         27.2         57.8         8.2         33.8         3077         2708           2         22702         31.1         26.1         81.1         99         99.4         196         30.5         64.6         83         33         316         255.5         316         255.5         316         255.5         316         255.5         316         255.5         316         255.5         316         255.5         212         32.7         72.6         9.0         316         255.5         2609         2616         28.3         334	102 D1 31.0 24.1 7.3 95 88.6 21.6 32.1 64.4 7.5 30.3 309	31.0 24.1 7.3 95 88.6 21.6 32.1 64.4 7.5 30.3 309	24.1 7.3 95 88.6 21.6 32.1 64.4 7.5 30.3 309	7.3 95 88.6 21.6 32.1 64.4 7.5 30.3 309	95 88.6 21.6 32.1 64.4 7.5 30.3 309	38.6 21.6 32.1 64.4 7.5 30.3 309 <sup>-</sup>	1.6 32.1 64.4 7.5 30.3 309	2.1 64.4 7.5 30.3 309	4 7.5 30.3 309	30.3 309	309	~	23350	29.7	26.9 8	* 0.	97 9	0.7 1	9.1 3	0.4 6	9.2 8	.4 32	2.8 33	90 2701
7         22835         33.6         24.8         8.3*         96         87.9         20.9         30.6         60.3         7.4         30.2         2944         246           9         24019         31.1         28.2         8.8         **         92         88.6         18.8         27.2         57.8         8.2         30.8         3077         270           2         22702         31.1         28.2         8.8         **         99         89.4         19.6         30.5         64.6         8.3         30.8         3167         257           7         2364         30.4         27.1         89         91.5         19.3         31.1         72.6         9.0         31.0         3316         235.           7         23564         30.4         27.1         82         91.5         19.3         31.1         72.6         9.0         31.6         235.           7         23564         30.4         27.1         83         97.9         17.8         27.2         57.8         31.9         336.         260.           7         20670         28.8         8.10         19.6         27.2         27.2         59.9	104 3122 E-Z 31.1 26.5 8.1 ** 96 88.5 23.7 35.0 67.1 7.7 25.3 292	31.1 26.5 8.1 ** 96 88.5 23.7 35.0 67.1 7.7 25.3 292	26.5 8.1 ** 96 88.5 23.7 35.0 67.1 7.7 25.3 292	8.1 ** 96 88.5 23.7 35.0 67.1 7.7 25.3 292	96 88.5 23.7 35.0 67.1 7.7 25.3 292	8.5 23.7 35.0 67.1 7.7 25.3 292	3.7 35.0 67.1 7.7 25.3 292	5.0 67.1 7.7 25.3 292	1 7.7 25.3 292	25.3 292	292	4	24584	28.0	28.9 8	*	98	0.5 2	1.2	2.7 7	1.0 8	.4 27	.5 31	22 251
3         24019         31.1         28.2         88.6         18.8         27.2         57.8         8.2         33.7         277           2         227202         31.1         26.1         81.4         99         89.4         19.6         30.5         64.6         8.3         30.8         3146         255           3         22822         25.0         7.1         89         91.5         19.3         31.1         72.6         9.0         31.0         3316         235           7         23584         30.4         27.1         89         91.5         19.3         31.1         72.6         9.0         31.6         286           7         23584         30.4         27.1         8.9         91.5         21.2         32.7         72.6         9.0         3516         261           7         23564         30.4         27.1         8.9         190.6         29.1         28.0         281         280         281         281         281         281         281         281         281         281         281         281         281         281         281         281         281         281         281         281         <	96 BZ 34.8 22.9 7.9* 97 86.7 21.4 29.5 54.4 7.1 32.2 29	34.8 22.9 7.9 * 97 86.7 21.4 29.5 54.4 7.1 32.2 29	22.9 7.9 * 97 86.7 21.4 29.5 54.4 7.1 32.2 29	7.9 * 97 86.7 21.4 29.5 54.4 7.1 32.2 26	97 86.7 21.4 29.5 54.4 7.1 32.2 29	36.7 21.4 29.5 54.4 7.1 32.2 29	1.4 29.5 54.4 7.1 32.2 26	9.5 54.4 7.1 32.2 29	4 7.1 32.2 29	32.2 29	26	20	22835	33.6	24.8 8	* °.	96 8	7.9 2	0.9 3	0.6 6	0.3 7	.4 30	0.2 29	44 246
2       22702       31.1       26.1       8.1*       99       89.4       19.6       30.5       64.6       8.3       30.8       3146       255.         7       20870       28.2       25.0       7.1       89       91.5       19.3       31.1       72.6       9.0       31.0       3316       235.         7       23584       30.4       27.1       8.2       97       89.9       19.5       29.9       65.7       8.1       31.9       3186       260.         4       25691       33.6       29.8       8.0       10.6       91.5       21.2       32.7       72.6       9.0       35.6       3390       287         7       20870       28.0       24.8       7.1       89       87.9       17.8       27.5       2944       235.7         7       20870       28.0       24.4       7.8       4       1.6       9.3       8.7.2       57.6       74.4       235.7         7       5.9       4.4       7.8       4       1.6       9.3       8.2       8.4       57.4       27.5       2944       235.7         13       5.9       4.4       7.8       4	99 VT2P 31.6 26.0 8.1 ** 90 87.4 21.5 30.2 57.9 7.4 31.3 29	31.6 26.0 8.1 ** 90 87.4 21.5 30.2 57.9 7.4 31.3 29	26.0 8.1 ** 90 87.4 21.5 30.2 57.9 7.4 31.3 29	8.1 ** 90 87.4 21.5 30.2 57.9 7.4 31.3 29	90 87.4 21.5 30.2 57.9 7.4 31.3 29	37.4 21.5 30.2 57.9 7.4 31.3 29	1.5 30.2 57.9 7.4 31.3 29	0.2 57.9 7.4 31.3 29	9 7.4 31.3 29	31.3 29	29	49	24019	31.1	28.2 8	** 8.	92 8	8.6 1	8.8 2	7.2 5	7.8 8	233	30 30	77 2708
2         20870         28.2         25.0         7.1         89         91.5         19.3         31.1         7.26         9.0         31.0         3316         2352           7         23584         30.4         27.1         8.2         97         89.9         91.5         29.9         65.7         8.1         31.9         3186         2609           4         25691         33.6         29.8         8.8         100         91.5         21.2         32.7         72.6         9.0         35.6         3390         2879           7         20870         28.0         24.8         7.1         89         87.9         17.8         27.2         57.4         27.5         2944         2352           7         5.9         4.4         7.8         4         1.6         9.3         8.2         8.4         5.1         11.6         8         13           1         2081         2.2         1.4         0.8         4         1.8         13           7         5.9         4.4         7.8         4         1.6         9.3         8.2         8.4         5.1         16         8         13           13 <td>100 D2 32.2 23.9 7.6 * 97 87.5 21.9 31.9 60.4 7.6 30.0 30</td> <td>32.2 23.9 7.6 * 97 87.5 21.9 31.9 60.4 7.6 30.0 30</td> <td>23.9 7.6 * 97 87.5 21.9 31.9 60.4 7.6 30.0 30</td> <td>7.6 *         97         87.5         21.9         31.9         60.4         7.6         30.0         30</td> <td>97 87.5 21.9 31.9 60.4 7.6 30.0 30</td> <td>37.5 21.9 31.9 60.4 7.6 30.0 30</td> <td>1.9 31.9 60.4 7.6 30.0 30</td> <td>1.9 60.4 7.6 30.0 30</td> <td>4 7.6 30.0 30</td> <td>30.0 30</td> <td>б С</td> <td>02</td> <td>22702</td> <td>31.1</td> <td>26.1 8</td> <td>*</td> <td>66</td> <td>9.4 1</td> <td>9.6 3</td> <td>0.5 6</td> <td>4.6 8</td> <td>.30</td> <td>.8 31</td> <td>46 2553</td>	100 D2 32.2 23.9 7.6 * 97 87.5 21.9 31.9 60.4 7.6 30.0 30	32.2 23.9 7.6 * 97 87.5 21.9 31.9 60.4 7.6 30.0 30	23.9 7.6 * 97 87.5 21.9 31.9 60.4 7.6 30.0 30	7.6 *         97         87.5         21.9         31.9         60.4         7.6         30.0         30	97 87.5 21.9 31.9 60.4 7.6 30.0 30	37.5 21.9 31.9 60.4 7.6 30.0 30	1.9 31.9 60.4 7.6 30.0 30	1.9 60.4 7.6 30.0 30	4 7.6 30.0 30	30.0 30	б С	02	22702	31.1	26.1 8	*	66	9.4 1	9.6 3	0.5 6	4.6 8	.30	.8 31	46 2553
7         23584         30.4         27.1         8.2         97         89.9         19.6         29.9         65.7         8.1         31.9         3186         2605           4         25691         33.6         29.8         8.8         100         91.5         21.2         32.7         72.6         9.0         35.6         3390         2875           7         20870         28.0         24.8         7.1         89         87.9         17.8         27.2         57.4         27.5         2944         2355           7         5.9         4.4         7.8         4         1.6         9.3         8.2         8.4         5.1         11.6         8         13           5.9         4.4         7.8         4         1.6         9.3         8.2         8.4         5.1         11.6         8         13           1         2.081         2.2         3.0         6.7         0.5         4.5         294         405	101 CONV 30.2 23.3 6.9 90 88.3 22.3 32.6 64.0 8.0 28.3 296	30.2 23.3 6.9 90 88.3 22.3 32.6 64.0 8.0 28.3 296	23.3 6.9 90 88.3 22.3 32.6 64.0 8.0 28.3 296	6.9 90 88.3 22.3 32.6 64.0 8.0 28.3 296	90 88.3 22.3 32.6 64.0 8.0 28.3 296	8.3 22.3 32.6 64.0 8.0 28.3 296	2.3 32.6 64.0 8.0 28.3 296	2.6 64.0 8.0 28.3 296	0 8.0 28.3 29(	28.3 296	29(	60	20870	28.2	25.0 7	1.	89 9	1.5 1	9.3 3	1.1 7	2.6 9	.0 31	.0 33	16 2352
4         25691         33.6         29.8         8.8         100         91.5         21.2         32.7         72.6         9.0         35.6         3390         2875           7         20870         28.0         24.8         7.1         89         87.9         17.8         27.5         2944         2355           1         3         5.9         4.4         7.8         4         1.6         9.3         82.5         81.4         27.5         2944         2355           13         5.9         4.4         7.8         4         1.6         9.3         8.2         8.4         5.1         11.6         8         13           1         2081         2.2         1.4         0.8         4         1.8         2.2         3.0         6.7         0.5         4.5         294         405	32.0 24.7 7.8 95 88.2 21.4 31.0 61.5 7.4 31.0 30	32.0 24.7 7.8 95 88.2 21.4 31.0 61.5 7.4 31.0 30	24.7 7.8 95 88.2 21.4 31.0 61.5 7.4 31.0 303	7.8 95 88.2 21.4 31.0 61.5 7.4 31.0 303	95 88.2 21.4 31.0 61.5 7.4 31.0 303	38.2 21.4 31.0 61.5 7.4 31.0 303	1.4 31.0 61.5 7.4 31.0 303	1.0 61.5 7.4 31.0 303	5 7.4 31.0 303	31.0 303	300	22	23584	30.4	27.1 8	2	97 8	9.9 1	9.6 2	9.6	5.7 8	.1 31	.9 31	86 2609
7         20870         28.0         24.8         7.1         89         87.9         17.8         27.2         57.8         7.4         27.5         2944         235           13         5.9         4.4         7.8         4         1.6         9.3         8.2         8.4         5.1         11.6         8         13           1         2.5         4.4         7.8         4         1.6         9.3         8.2         8.4         5.1         11.6         8         13           1         2081         2.2         1.4         0.8         2.2         3.0         6.7         0.5         4.5         294         405	34.8 26.5 8.1 98 90.0 23.7 35.0 67.1 8.0 34.4 329	34.8 26.5 8.1 98 90.0 23.7 35.0 67.1 8.0 34.4 329	26.5 8.1 98 90.0 23.7 35.0 67.1 8.0 34.4 329	8.1 98 90.0 23.7 35.0 67.1 8.0 34.4 329	98 90.0 23.7 35.0 67.1 8.0 34.4 329	0.0 23.7 35.0 67.1 8.0 34.4 329	3.7 35.0 67.1 8.0 34.4 329	5.0 67.1 8.0 34.4 329	1 8.0 34.4 329	34.4 329	320	4	25691	33.6	29.8	œ.	100	1.5 2	1.2	2.7 7.	2.6 9	35	5.6 33	90 287
13         5.9         4.4         7.8         4         1.6         9.3         8.2         8.4         5.1         11.6         8         13           t         2081         2.2         1.4         0.8         4         1.8         2.2         3.0         6.7         0.5         4.5         294         405	30.2 22.9 6.9 90 86.7 19.4 29.1 54.4 7.0 25.3 290	30.2 22.9 6.9 90 86.7 19.4 29.1 54.4 7.0 25.3 290	22.9 6.9 90 86.7 19.4 29.1 54.4 7.0 25.3 290	6.9         90         86.7         19.4         29.1         54.4         7.0         25.3         290	90 86.7 19.4 29.1 54.4 7.0 25.3 290	86.7 19.4 29.1 54.4 7.0 25.3 290	9.4 29.1 54.4 7.0 25.3 290	9.1 54.4 7.0 25.3 290	4 7.0 25.3 290	25.3 290	290	2	20870	28.0	24.8 7	5.	89 8	7.9 1	7.8 2	7.2 5	7.8 7	.4 27	.5 29	44 2352
i 2081 2.2 1.4 0.8 4 1.8 2.2 3.0 6.7 0.5 4.5 294 4058	7.0 5.8 9.5 4 2.1 9.7 8.4 10.7 5.4 12.5 10	7.0 5.8 9.5 4 2.1 9.7 8.4 10.7 5.4 12.5 10	5.8 9.5 4 2.1 9.7 8.4 10.7 5.4 12.5 10	9.5 4 2.1 9.7 8.4 10.7 5.4 12.5 10	4 2.1 9.7 8.4 10.7 5.4 12.5 10	2.1 9.7 8.4 10.7 5.4 12.5 10	۰٫7 8.4 10.7 5.4 12.5 10	3.4 10.7 5.4 12.5 10	7 5.4 12.5 10	12.5 10	10		13	5.9	4.4 7	<u>.</u>	4	9.	9.3 8	3.2 8	3.4 5	11	9.	3 13
	1.5 1.0 0.5 3 1.2 1.4 1.8 4.5 0.3 2.6 204	1.5 1.0 0.5 3 1.2 1.4 1.8 4.5 0.3 2.6 204	1.0 0.5 3 1.2 1.4 1.8 4.5 0.3 2.6 204	0.5 3 1.2 1.4 1.8 4.5 0.3 2.6 204	3 1.2 1.4 1.8 4.5 0.3 2.6 204	1.2 1.4 1.8 4.5 0.3 2.6 204	.4 1.8 4.5 0.3 2.6 204	1.8 4.5 0.3 2.6 204	5 0.3 2.6 204	2.6 204	204		2081	2.2	1.4 C	<u>.</u>	4	<u>.</u>	22	3.0	5.7 0	.5	5	94 4058

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

### 2-Year Averages Available in online version at https://www.canr.msu.edu/varietytrials

-	35	-

							Presqu	e Isle	- Late									We	kford -	Late					—
2022				Y	IELD			%	<b>QUALI</b>	TΥ		MIL	K 2006		١۲	ELD			6	6 QUAL	ΤY		MIL	K 2006	<u> </u>
<b>BRAND / HYBRID</b>	RM	TRAIT	%DM	GT/A	DT/A	%STD	ND /	ADF N	DF ND	E C	P STF	L/MM 3	- MK/A	WD%	GT/A	DT/A	%STD	۵N	ADF 1	N JUF	DFD 0	P ST	R MK/	F MK/	⊲
Dairyland Seed HiDF-3855Q	98	ø	30.3	29.1	8.8 *	94	87.2 2	23.2 3	1.9 59	.80 80	0 28.	1 2855	22166	38.4	18.1	e.9 *	98	89.9	17.0 2	25.0 5	8.9 6	.0 42	9 351	9 2431	6
Dairyland Seed HiDF-4073Q	100	Ø	29.7	30.3	8.0 *	98	89.8	22.6 3	4.9 70	.4 8.	2 27.2	2 3172	28463	35.2	16.8	5.9	97	89.5	17.8	26.2 5	9.4 5	.7 40	4 337:	2 1981	6
Dyna-Gro Seed D40VC41	100	/T2PRIB	28.7	29.7	8.5 *	97	86.0	25.5 3	4.3 58	.7 7.	5 24.7	2652	22625	36.3	19.1	e.9 *	92	88.5	17.5	24.5 5	2.4 5	9 40	8 322	1 2249	-
Golden Harvest G02K39-5122	102	5	28.3	29.3	8.3 *	92	87.5	25.1 3	6.3 65	.7 8.	3 23.3	3 2834	23491	35.2	16.3	5.7	95	87.6	20.5	29.6 5	8.4 5	.9 34	8 306	3 1954	7
Golden Harvest G04S19-3122	104	3122 E-Z	30.3	31.0	9.4 **	96	86.5	27.9 4	0.1 66		8 15.9	9 2493	26983	35.0	19.5	6.8 *	93	88.5	21.9	32.4 6	4.4 6	.0 32	7 315	3 2157	-
Legacy Seeds LC464-21 3120	96	ΒZ	31.9	25.8	8.2	98	85.3	24.0 3	1.5 53	.0 7.	7 28.5	5 2716	22521	38.9	17.9	7.0 *	96	87.0	19.2	26.4 5	0.0	.2 37	9 305	9 2129	2
LG Seeds LG49C28-VT2	66	VT2P	28.0	28.9	8.1	89	86.1	24.9 3	4.4 58	.7 8.	3 24.	1 2680	21601	35.8	21.0	7.5 **	88	87.6	20.9	28.8 5	7.1 5	.6 36	1 3089	9 2337	4
LG Seeds LG50C93-5222	100	D2	29.0	26.4	7.6	96	84.9	27.5 3	7.3 59	.5 8.	7 20.5	5 2568	19627	36.4	19.2	7.0 *	95	88.2	18.6	27.8 5	7.3 5	.9 38	8 329	0 2294	6
Viking O.69-01P	101	CONV	27.7	27.4	7.6	88	85.6	26.4 3	6.6 60	.5 8.	9 20.4	t 2562	20747	34.7	17.5	6.1	93	87.7	21.2	30.1 5	8.8 6	.2 33	5 3029	9 1833	8
AVERAGE			29.3	28.7	8.4	94	86.5 2	25.2 3	5.3 61	.4 8.	3 23.6	\$ 2726	23136	36.2	18.4	6.7	94	88.3	19.4 2	27.9 5	7.4 5	.9 37	5 320(	2152	2
HIGHEST			31.9	31.0	9.4	98	89.8	27.9 4	0.1 70	.4 8	9 28.5	3172	28463	38.9	21.0	7.5	98	89.9	21.9	32.4 6	4.4 6	.2 42	9 3519	9 2431	6
LOWEST			27.7	25.8	7.6	88	84.9	22.6 3	1.5 53	.0 7.	5 15.9	9 2493	19627	34.7	16.3	5.7	88	87.0	17.0	24.5 5	0.0 5	.6 32	7 3029	9 1833	8
CV (%)			9.8	5.1	10.6	5	2.6	0.01	3.4 11	.3 5.	1 18.6	3 14	14	5.2	8.8	9.6	4	1.9	9.4	8.6 1	2.4 6	.4 9.	∞	13	
LSD (5%)			3.5	1.8	1.1	9	2.7		3.6 8.	4.0	5 5.3	447	4077	2.3	2.0	0.8	5	2.1	2.2	2.9	3.6	.5	327	327.	+
		•												:											

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

### MYCOTOXINS IN MICHIGAN SILAGE CORN – AN OVERVIEW

Harkirat Kaur, Phil Durst, Phil Kaatz, Martin Mangual, and Maninder Pal Singh

Fungi such as Aspergillus, Fusarium, Penicillium and Gibberella spp. can cause accumulation of mycotoxins (toxic secondary metabolites) in corn ear and stalk. Cool and wet weather conditions around silking tends to be favorable for growth of *F. graminearum* and may cause high deoxynivalenol (DON or vomitoxin) accumulation. Feeding by birds, animals, and ear damaging insects such as western bean cutworm (WBC) and European corn borer (ECB) can provide easy entry for the fungus and intensify infections. Mycotoxins in grain corn have long been studied and measured, but the presence of mycotoxins in silage corn might get ignored. Yet, the impact of mycotoxins on livestock will be from the total mycotoxin load in the ration, not just that from one component.

Mycotoxins result in metabolic disruptions in livestock, risking their lives and productivity, and causing losses in milk production, hormonal imbalance, reduced reproductive performance and in severe cases the death of animals. Mycotoxins can have serious economic consequences if present in sufficient concentrations. Moreover, various mycotoxins co-occur in the plant and their impacts on the health of livestock may be synergistic. This makes it difficult to determine safe levels (thresholds) for individual mycotoxins.

To understand the extent and gravity of mycotoxins. Michigan silage corn, MSU Cropping System Agronomy lab conducted a three-year survey of Michigan silage corn starting in 2019. A total of 122 samples from across 22 counties were collected during harvesting seasons of 2019, 2020 and 2021 and analyzed for 26 different mycotoxins.

Results showed the presence of mycotoxins in Michigan silage corn. All the samples tested positive for at least one mycotoxin. Deoxynivalenol was detected in all 122 samples. At least 60% (in 2021) and 50% (in 2019) of the samples had DON concentrations greater than 1 ppm (threshold limit for dairy cattle), whereas in 2020 only 12% of samples had DON levels greater than 1 ppm (Table 1). Other frequently occurring mycotoxins in 2021 were zearalenone (ZON), fumonisins, and moniliformin. However, none of these toxins were found at levels greater than their respective threshold limits (2 ppm, 0.1 ppm, and 0.4 ppm, respectively for dairy cattle). In 2020 and 2019, enniatins and beauvericin were the toxins that occurred in 100% of the samples, but their concentrations were low. The second most frequently occurring category of mycotoxins in 2020 were fumonisins, with eight samples at levels greater than threshold (2 ppm). Zearalenone occurred in significant amounts only in 2019, with three samples greater than 1 ppm.

Co-occurrence of mycotoxins was reported in all the samples. On average, most of the samples tested positive for at least 10 mycotoxins in 2021 with a maximum of 13 in one sample. In 2020, four samples tested positive for more than 20 mycotoxins and each sample tested positive for at least seven different mycotoxins. Mycotoxin co occurrence was most pronounced in 2019 of all three years with a maximum of 24 mycotoxins detected in a single sample. Overall, the concentration and frequency of mycotoxins were observed to be dependent on regional weather conditions around silking in corn. In 2020, since growing season was drier and rainfall was more sporadic compared to 2019 and 2021, lower frequency and concentration of mycotoxins was observed.

Highest DON and ZON concentration found across tested samples was lower in 2020 (1.4 and 0.07 ppm) compared to 2019 (5.7 and 2.5 ppm) and 2021 (18.4 ppm and 0.23 ppm, respectively). The only toxin that occurred in higher concentration in 2020 (10.6 ppm) than in 2019 and 2021 was fumonisin. Accumulation of fumonisin occurs due to *F. verticilloides* infection which is favored when the environment is warm and dry around silking whereas DON is the dominant toxin under cool and humid conditions

Although all the samples tested positive for multiple mycotoxins, levels of individual toxins were not always above threshold levels (Table 1). Besides that, some of the tested mycotoxins do not have established threshold levels or they might be lower due to synergistic negative impacts of mycotoxin co-occurrence. Therefore, mycotoxin levels must be taken into consideration while making management decisions to prevent any risks to livestock health.

There are few ways to overcome mycotoxins once they are present in corn, therefore, preventing mycotoxin accumulation in the field using integrated pest management approach is essential. These include hybrid selection, timely planting, fungicide application, scouting and spraying for ear feeding insects, and timely harvest. Recent research at MSU has shown that hybrid selection (i.e., use of ear-feeding insect protection traits) reduced insect feeding (70-85%), ear rot infections (70-75%) and eventually mycotoxin accumulations in silage corn at locations with high insect pressure. Furthermore, hybrids with resistance against stalk rots (in addition to ear rots) can also help alleviate the accumulation of mycotoxins. Fermentation processes in bunker silos will not break down mycotoxins from an already infected silage corn which makes the field management even more crucial.

Toxin	2019	2020	2021
DON <sup>1</sup> (detectable)	100	100	100
DON >1 ppm (threshold)	50	12	60
ZON <sup>2</sup> (detectable)	100	35	100
ZON >0.4 ppm (threshold)	26	0	0
Fumonisins (detectable)	95	96	100
Fumonisins >2 ppm (threshold)	5	16	0
Moniliformin (detectable)	62	56	100
Moniliformin >0.1 ppm (threshold)	0	0	3
Enniatins and beauvericin (detectable)	100	100	100
Enniatins and beauvericin (high levels)	0	0	0
Presence of >1 mycotoxins	100	100	100
Presence of >10 mycotoxins	100	92	96

<sup>1</sup> Deoxynivalenol, <sup>2</sup> zearalenone

**Table 1.** Percentages of samples (n=122) with toxins at detectable and threshold levels (for dairy cattle).



over years during survey

Notes

Notes

### THANK YOU TO OUR FARM COOPERATORS:

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### MICHIGAN STATE UNIVERSITY **EXTENSION**

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