



2019 MICHIGAN CORN HYBRIDS COMPARED

EXTENSION BULLETIN E-431

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MICHIGAN STATE
UNIVERSITY

College of Agriculture
and Natural Resources

RESEARCH CONDUCTED BY MICHIGAN STATE UNIVERSITY
Results of the 2019 Growing Season

COMPANY INDEX

BRAND	CONTACT	BRAND	CONTACT	BRAND	CONTACT
AG ARMOUR	Ag Armour Seeds 8236 North Williams Rd. St. Johns, MI 48879 www.ag-armourseeds.com	KingFisher	Byron Seeds 775 N 350 E Rockville, IN 47172 www.syngenta.com	SEEDWAY	Seedway LLC 275 North Eighth Street Mifflinburg, PA 17844 www.seedway.com
AGRIGOLD	AgriGold Hybrids 5381 Akin Road St. Francisville, IL 62460 www.agrigold.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
BLUE RIVER	Blue River Hybrids 2326 230th Street Ames, IA 50014 www.blueriverorgseed.com	LEGEND	Legend Seeds P.O. Box 241 DeSmet, 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
DAIRYLAND	Dairyland Seed P.O. Box 958 West Bend, WI 53095 www.dairylandseed.com	LG SEEDS	LG Seeds 9915 W M21 Ovid, MI 48866 www.lgseeds.com	WELLMAN	Wellman Seeds, Incorporated 23778 Delphos Jennings Road Delphos, OH 45833 www.wellmanseeds.com
DYNA-GRO	Dyna-Gro Seed 4648 S. Garfield Road Auburn, MI 48611 www.dyna-groseed.com	LOCAL SEED	Local Seed Company 802 Rozelle Street Memphis, TN 38104 www.localseed.com	WYCKOFF	Wyckoff Hybrids 594 E 400 N Valparaiso, IN 46383 www.wyckoffhybrids.com
FS InVision	Growmark, Inc. 1701 Towards Ave. Bloomington, IL 61701 www.growmark.com	M & W SEEDS	M & W Seeds Incorporated 8443 Wilcox Road Eaton Rapids, MI 48827 www.mwseeds.com		
GOLDEN HARVEST	Syngenta Seed 11055 Wayzata Boulevard Minnetonka, MN 55440 www.syngenta.com	MASTERS CHOICE	Masters Choice, Incorporated 3010 State Route 146 E. Anna, IL 62906 www.seedcorn.com		
INTEGRA	Agra Solutions LLC 23778 Delphos Jennings Rd. Delphos, OH 45833 www.agrasolutions.com	NK Brand	Syngenta Seeds, Incorporated 11055 Wayzata Boulevard Minnetonka, MN 55440 www.syngenta.com		
KEY	Wilbur-Ellis 345 California Street, 27 th Floor San Francisco, CA 94104 www.wilburellis.com	RENK	Renk Seed Company 6809 Wilburn Road Sun Prairie, WI 53590 www.renkseed.com		
		RUPP	Rupp Seeds, Incorporated 17919 Co. Road B Wauseon, OH 43567 www.ruppseeds.com		

2019

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 expenses incurred. Separate indices for grain and silage provide a list of all hybrids entered in the 2019 trials (pg. 24 and 30 respectively). A total of 311 hybrids from 24 brand names make up the 463 entries; which translates into 5,556 separate plots planted across 12 grain locations and 9 silage locations in Michigan. 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 that have a seed-applied insecticide that may enhance yield are listed in the table column TRT (Treatment). The "TRAIT" column uses code numbers, listing the hybrid traits provided by the companies. Treatment and trait codes are listed in the tables on page 19.

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

<http://www.varietvtrials.msu.edu>

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. 26) and Table C for the silage trials (pg. 31). Fertilizer amounts are shown as total pounds per acre of N, P₂O₅, and K₂O applied during the season.

Season in Summary: 2019

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, our students began counting seeds and filling packets. Seed packets were sorted by trial and location and organized according to a computer-generated random planting order. Some seed in the trials comes from winter production in South America, meaning we are usually receiving seed up until the morning we leave the Agronomy Farm for the first day of planting.

The upgrade of our planter to a precision 4 row Almaco Seed Pro 360 vacuum planter in 2018 did not meet our expectations. To say the least, we were disappointed with the consistency of the planter. After further research, we switched the GPS provider to Trimble GFX-750 with a NAV-900 controller for 2019. This Trimble system is more compatible with the Almaco controller.

Planting commenced in Mason County on May 14th and ended in Ottawa County on June 27th. The protracted planting season was due to the numerous rain events during the planting season. These rainy conditions resurfaced late in the growing season and hampered harvest as well. Saginaw and Washtenaw locations were not planted because of the frequent and sometimes heavy rains. Lenawee was planted but was later abandoned, as heavy rains after planting caused poor emergence.

- Season Continued On Page 6.

2019 GROWING SEASON WEATHER SUMMARY

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

From a weather-related perspective, the 2019 growing season across the Great Lakes region will go into the books ranking among the most challenging in recent memory. Overall, for the April-October period, mean temperatures were very close to the long term climatological normals. However, that mean was masked by high variability during the season, ranging from much cooler than normal weather early in the season to warmer than normal conditions during the late summer and early fall. Precipitation totals for the period were above normal region-wide, with seasonal surpluses in many spots greater than 8.00". In contrast, some areas in Michigan had persistent dryness during the middle of the summer, which had an adverse impact on crop performance.

The winter of 2018/2019 was statistically somewhat colder and wetter than normal on average, with some notable regional differences. Winter weather began early last November but was quickly replaced by a milder than normal period from early December into early January, which was generally followed by an extended period of colder than normal conditions. This included at least two severe cold outbreaks during the second half of January. Seasonal December through February mean temperatures varied by location across the state and region, ranging from just above normal in extreme southeastern sections of the state to more than 3° below normal across the western Upper Peninsula. Precipitation totals varied similarly, ranging from slightly below normal across southeastern sections to much above normal in the northwest. Seasonal snowfall totals varied from below normal levels in the southern Lower Peninsula to above normal across sections of Upper Michigan. Ice concentration on the Great Lakes at the end of the winter season was more extensive than normal, with more than 80% coverage on Lakes Superior, Huron, and Erie, and just above 40% on Lake Michigan. Colder than normal temperatures statewide during the early spring resulted in a late break of dormancy and slow early development of most overwintering crops.

After seasonable temperatures early in April, soil temperatures had warmed enough to allow planting of many annual crops to begin when a series of weather disturbances moving along a near stationary frontal boundary stretching west to east across the Midwest

region led to several rounds of rain and snow across much of Michigan during the last week of April into early May. The unsettled weather continued through much of May into early June with rain and snow on an almost daily basis leading to saturated soils, flooding, and prolonged fieldwork delays that persisted through much of May into June. Michigan statewide average precipitation totals (and departures from normal) for April, May, and June were 3.65" (+1.05"), 4.73" (+1.64"), and 4.13" (+0.85") respectively, which is the fourth wettest April-June period on record back to 1895. By late May, soil moisture rankings in some areas reached the 95th or higher percentile levels relative to long term normals (which is especially significant given that soil moisture levels are normally at or near their highest levels of the year during the spring season). Crop planting delays reached record late dates in some areas and many growers switched to earlier maturing varieties or were even unable to plant. It is important to note that Michigan was not alone regarding the poor spring weather (and spring fieldwork challenges), with heavier than normal rainfall totals and planting delays also reported from the Great Plains eastward to the Atlantic.

Following the abnormally cool, wet weather during the spring, a major upper air pattern change took place during the last week of June with the formation of a broad upper air ridge across the region. This change resulted in much warmer, summerlike temperatures, less frequent rainfall in the region and accelerated phenological development rates of most crops. The pattern continued through much of July, with warmer than normal temperatures and a noticeable decrease in precipitation rates. While the warmer and drier weather favored forage and wheat harvests in many areas, it also led to increasing levels of moisture stress in other areas given the delayed planting and shallower and less developed than normal crop rooting systems. The timing of the dryness was unfavorable given that it coincided with relatively moisture-sensitive phenological stages.

- Weather Continued On Page 6.

TABLE A. GROWING SEASON SUMMARY - TEMPERATURE, PRECIPITATION AND GROWING-DEGREE-DAY ACCUMULATIONS

Zone	COUNTY	MAY			JUNE			JULY			AUGUST			SEPTEMBER			SEASON		
		OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV	OBS	NORM	DEV
		<p>Zone 1</p> <p>BRANCH & CASS (Coldwater) TEMP 56.6 58.2 -1.6 65.9 67.3 -1.4 73.2 71.3 1.9 68.1 69.3 -1.2 65.9 61.6 4.3 65.9 65.5 0.4 PPT 5.21 3.18 2.03 4.65 3.67 0.98 4.40 3.13 1.27 1.76 3.69 -1.93 4.80 3.61 1.19 20.82 17.28 3.54 GDD 294 344 -50 494 527 -33 711 648 63 571 597 -26 486 396 90 2556 2512 44</p> <p>LENAWEE TEMP 56.0 58.2 -2.2 64.4 68.0 -3.6 74.0 72.3 1.7 69.6 70.3 -0.7 66.1 62.7 3.4 66.0 66.3 -0.3 & WASHTEENAW PPT 5.66 2.97 2.69 5.30 3.51 1.79 4.48 3.00 1.48 5.01 3.38 1.63 4.31 3.34 0.97 24.76 16.20 8.56 (Hudson) GDD 289 346 -57 401 541 -140 596 675 -79 613 624 -11 496 415 81 2395 2601 -206</p> <p>WOOD (OH) TEMP 60.4 60.0 0.4 68.6 70.1 -1.5 77.4 73.2 4.2 72.0 71.0 1.0 69.4 64.3 5.1 69.6 67.7 1.8 (Bowling Green) PPT 5.42 3.85 1.57 4.92 3.41 1.51 4.63 3.76 0.87 5.05 3.81 1.24 3.14 2.86 0.28 23.16 17.69 5.47 GDD 376 371 5 556 595 -39 813 691 122 687 641 46 585 454 131 3017 2752 265</p> <p>Zone 2</p> <p>ALLEGAN TEMP 54.1 58.2 -4.1 65.4 67.3 -1.9 73.3 71.5 1.8 68.2 69.7 -1.5 65.6 62.2 3.4 65.3 65.8 -0.5 (Fennville) PPT 5.30 3.43 1.87 4.35 3.74 0.61 2.93 3.43 -0.50 3.96 3.77 0.19 7.02 4.01 3.01 23.56 18.38 5.18 GDD 231 340 -109 493 526 -33 711 655 56 546 610 -64 495 406 89 2476 2537 -61</p> <p>INGHAM TEMP 56.4 58.2 -1.8 66.1 67.3 -1.2 74.7 71.3 3.4 70.1 69.3 0.8 66.0 61.6 4.4 66.7 65.5 1.1 (MSU) PPT 2.61 3.18 -0.57 7.45 3.67 3.78 2.73 3.13 -0.40 1.57 3.69 -2.12 3.43 3.61 -0.18 17.79 17.28 0.51 GDD 281 344 -63 498 527 -29 725 648 77 631 597 34 377 396 -19 2512 2512 0</p> <p>SAGINAW TEMP 55.5 57.0 -1.5 65.8 66.1 -0.3 74.4 70.6 3.8 69.5 68.4 1.1 65.4 60.7 4.7 66.1 64.6 1.6 (Saginaw) PPT 3.31 2.83 0.48 4.44 3.21 1.23 1.61 2.83 -1.22 1.60 3.38 -1.78 4.45 3.81 0.64 15.41 16.06 -0.65 GDD 258 317 -59 486 495 -9 742 627 115 610 573 37 473 373 100 2569 2385 184</p> <p>HURON TEMP 52.5 57.0 -4.5 63.2 66.1 -2.9 71.3 70.6 0.7 67.2 68.4 -1.2 63.8 60.7 3.1 63.6 64.6 -1.0 (Pigeon) PPT 3.43 2.83 0.60 3.73 3.21 0.52 1.86 2.83 -0.97 1.46 3.38 -1.92 3.82 3.81 0.01 14.30 16.06 -1.76 GDD 202 317 -115 412 495 -83 649 627 22 525 573 -48 428 373 55 2216 2385 -169</p> <p>MASON TEMP 53.8 56.1 -2.3 63.7 65.0 -1.3 72.4 69.7 2.7 67.5 68.0 -0.5 63.1 60.2 2.9 64.1 63.8 0.3 (Hart) PPT 4.62 2.98 1.64 5.45 3.26 2.19 2.23 2.74 -0.51 6.62 4.03 2.59 5.58 3.59 1.99 24.50 16.60 7.90 GDD 232 302 -70 441 471 -30 695 609 86 559 564 -5 407 362 45 2334 2308 26</p> <p>MONTCALM TEMP 54.8 56.7 -1.9 64.8 65.6 -0.8 73.1 69.9 3.2 67.8 67.6 0.2 64.2 59.6 4.6 64.9 63.9 1.1 (Entrican) PPT 5.21 2.95 2.26 3.35 3.30 0.05 2.42 2.74 -0.32 2.92 3.85 -0.93 7.81 3.71 4.10 21.71 16.55 5.16 GDD 290 323 -33 478 488 -10 694 610 84 570 555 15 449 357 92 2481 2333 148</p> <p>IOSCO TEMP 51.2 57.0 -5.8 62.4 66.1 -3.7 70.5 70.6 -0.1 67.0 68.4 -1.4 61.9 60.7 1.2 62.6 64.6 -2.0 (Standish) PPT 4.30 2.83 1.47 3.61 3.21 0.40 2.07 2.83 -0.76 1.41 3.38 -1.97 2.27 3.81 -1.54 13.66 16.06 -2.40 GDD 184 317 -133 385 495 -110 634 627 7 546 573 -27 380 373 7 2129 2385 -256</p> <p>Zone 4</p> <p>OSCEOLA TEMP 51.0 53.4 -2.4 61.8 63.3 -1.5 70.3 67.5 2.8 64.6 65.4 -0.8 61.1 57.5 3.6 61.8 61.4 0.3 (Cadillac) PPT 4.37 3.28 1.09 4.96 3.54 1.42 2.76 3.21 -0.45 3.28 3.71 -0.43 6.83 3.82 3.01 22.20 17.56 4.64 GDD 204 260.7 -56.7 402 429.2 -27.2 632 537.4 94.6 481 496.2 -15.2 365 311.8 53.2 2084 2035.3 48.7</p> <p>PRESQUE ISLE TEMP 49.5 52.7 -3.2 60.1 62.4 2.3 69.8 67.6 -2.2 65.3 65.6 0.3 60.2 57.9 -2.3 61.0 61.2 -0.3 (Alpena) PPT 5.04 2.66 2.38 3.25 2.62 -0.63 1.78 3.03 1.25 2.08 3.23 1.15 3.49 2.92 -0.57 15.64 14.46 1.18 GDD 174 153 21 370 380 10.0 613 553 -60.0 504 492 -12.0 362 261 -101.0 2023 1839 184</p>																	

OBS = Totals observed in 2019
NORM = Normals calculated over 30 year period (1981-2010)
DEV = Deviation of observed from normal
Table courtesy of MSU Agricultural Weather Office (517-355-0231)

TEMP = Mean temperature (°F)
PPT = Precipitation (inches)
GDD = Growing Degree Day calculated at base 50°F, with an 86°F cutoff

- Weather Continued From Page 4

Warmer and drier than normal weather continued across much of the region from late August into September, with statewide mean temperatures during September averaging + 3.7°F above the long term normal. While the warm weather resulted in continued moisture stress in some areas, it also provided additional heat units to advance summer crops towards maturity. For the May through October seasonal reference period, base 50°F growing degree day totals varied considerably from north to south across the state, ranging from less than 1800 units across northern and central sections of Upper Michigan to near 3000 units in extreme southern sections of the state along the Indiana and Ohio borders. Those totals range from more than 100 units above normal in the extreme south to more than 200 units below normal across western Upper and northern Lower Michigan.

A series of low-pressure systems brought several rounds of widespread heavy rainfall to the region during late September and the first half of October. The passage of several Canadian-origin high-pressure systems led to the first frost and freezing temperatures of the fall season across northern sections of the region during the first week of October and across many southern sections during the third week of the month. In most areas, the first freezing temperatures were several days or more late compared to the climatological normals, which was helpful given the delayed start of the season and consistent with a trend across the state towards later first fall freezes during the past 20-30 years. The formation of a strong upper air troughing feature across the central USA during the middle of October led to a prolonged period of abnormally cool, wet weather that persisted well into November and included several episodes of heavy rain, snow, and high winds. Given the delayed state of many crops, the inclement weather came at a particularly inopportune time and led to extended delays in harvest and other fieldwork activities. Just as importantly, colder than normal temperatures associated with the pattern slowed drying of soils and field dry down rates of unharvested crops.

Overall, weather conditions during the 2019 growing season are generally consistent with long-term climatic trends across the region toward warmer and wetter conditions. May through September total growing season precipitation averaged across the state was 19.51", which is the fifth wettest on record and reflects a trend towards wetter growing seasons with time, particularly during the last 30-40 years (The long term statistical trend is approximately +0.30" additional precipitation per decade). The timing of the changes in precipitation is also critical, with significant increases occurring during the spring and fall seasons (when it can be counterproductive). As noted earlier, the abnormally wet April-June period this year was fourth wettest on record in Michigan. Amazingly, four of the five wettest April-June periods on record have occurred in the last eight years since 2011. While this shift has resulted in relatively fewer, less severe droughts with time, it has also greatly complicated fieldwork operations due to excessive wetness.

- Season Continued From Page 3

A couple of changes in county location were made for the 2019 season. The Branch county location changed cooperators but still located near Coldwater and is in close proximity to previous years. Rotational restrictions limited suitable site selections. The Allegan county location was moved further west in Michigan in hopes of encountering Tar Spot infection. The Allegan county location did receive Tar Spot infection but not to the levels hoped for. We are still analyzing the large amounts of data collected at this site.

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 at all trials were conducted at approximately the V5 or V6 growth stages.

Silage harvesting began on September 17th in Branch County and finished on October 24th in Ottawa County. Grain harvest began November 3rd at Branch County and ended December 6th close to home at Ingham County.

Table A (pg. 5) presents 2019 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.

2019 GRAIN PERFORMANCE TRIALS

Introduction

The grain index (pg. 24) contains a list of all hybrids planted in the 2019 grain trials.

County results are reported in the following tables:

Tables 1E/1L Zone 1 - Branch, Cass, and Washtenaw (Washtenaw County dropped)

Tables 2E/2L Zone 2 – Allegan, Ingham, and Saginaw (Saginaw Country dropped)

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

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

Tables 5E/5L Conventional Trial – Ingham, Saginaw, (Zone 2) and Montcalm (Zone 3)

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, The Ohio State University Ohio Agricultural Research and Development Center, and Michigan State University AgBio Research Stations. Planting was accomplished with an Almaco Seed Pro 360 vacuum planter equipped with precision metering units, Kinze planting units and, Trimbl 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. Experimental design, data acquisition, analysis of variance, and data summarization were facilitated in part by AGROBASE Generation II™. The experimental layout was a four-replication, randomized complete block design. Hybrid performance is reported as the adjusted mean averaged together from four replicated plots.

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

Data was collected on the center two rows of each plot. Stand counts (%Std) were recorded in June. Target population rates and average trial populations are listed with other important agronomic information in Table B (pg. 26). Stalk lodging (%SL) measurements were recorded during harvest. All plants broken below the ear and/or leaning more than 45 degrees were counted. Moisture content (%H₂O) and field weights were measured by a Harvest Master™ single plot high capacity Grain Gage™ HM800 System that is mounted on the Kincaid 8-XP plot combine. Grain moisture (Bu/A) is reported at the standard 15.5

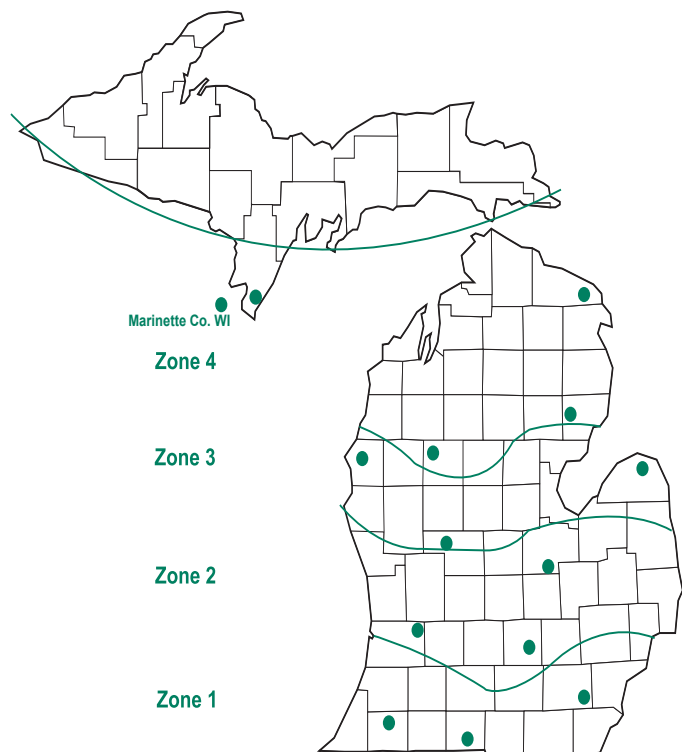
percent. Data was recorded on a Panasonic FZ-G1 Toughpad using Harvest Master™ Software. Grain test weight (Twt) is reported at harvest moisture. Automated test weight equipment loses some accuracy as harvest moistures increase. Test weight values should be used to determine relative rank and not as a precise weight.

Results

The tables report the following information about the hybrids tested:

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

2019 Grain Trial Locations



2 Year Averages 2019 - 2018

BRAND / HYBRID	RM	TRT	TRAIT	Early - TRIAL AVERAGE			Branch - Early			Cass - Early			Washtenaw - Early		
				%H2O	BU/A	Twt %SL %Sd	%H2O	BU/A	Twt %SL %Sd	%H2O	BU/A	Twt %SL %Sd	%H2O	BU/A	Twt %SL %Sd
DAIRYLAND SEED DS-4318AM	103	P500	1,2,4	18.7	229.6	55.2 1.4 97	19.9	240.7 *	54.6 0.9 97	17.4	218.4	55.8 1.8 96			
DAIRYLAND SEED DS-4329AM	103	P500	1,2,4	19.9	223.8	53.9 2.2 95	21.8	243.0 *	53.3 1.2 94	17.9	204.6	54.4 3.2 96			
GOLDEN HARVEST G07F23-3111	107	C250	1,2,3,4,6	20.1	242.6 **	54.1 1.4 94	22.1	241.2 *	53.6 0.7 92	18.0	244.0 **	54.6 2.0 96			
LG SEEDS LG5505VT2RIB	100	P500	1,2	17.4	203.7	56.9 0.5 98	18.2	221.1	56.5 0.6 97	16.6	186.2	57.3 0.3 98			
LG SEEDS LG5525VT2RIB	105	P500	1,2	18.9	211.4	55.4 0.6 97	20.4	230.9	54.6 0.4 97	17.3	191.9	56.1 0.8 97			
M&W SEEDS 45R69	103	C250	1,2	18.3	211.7	55.5 1.6 94	19.4	225.7	54.7 0.5 95	17.1	197.7	56.2 2.7 92			
RUPP XRD07-72	107	P250	1,2	18.7	211.5	54.8 0.6 89	20.9	232.1	54.2 0.2 86	16.5	190.8	55.3 1.0 91			
SPECIALTY 32A886	102	P500	1,2,3,4	18.2	208.0	54.0 0.2 98	19.7	227.6	53.4 0.2 99	16.6	188.3	54.6 0.1 97			
SPECIALTY 34A007	104	P500	1,2,3,4	18.7	224.2	55.9 0.4 95	20.3	243.5 *	55.1 0.0 96	17.1	204.9	56.7 0.8 94			
WELLMAN W2903DP	103	1,2	1,2	18.1	207.1	55.3 0.4 94	18.9	222.0	54.7 0.0 94	17.2	192.2	55.8 0.7 94			
WYCKOFF 2212 VT2P	100	P500	1,2	18.3	215.6	56.5 1.2 96	19.6	231.8	55.5 1.5 96	17.0	199.4	57.4 0.8 96			
WYCKOFF 2390 VT2P	103	P500	1,2	17.4	204.4	55.0 0.1 94	18.1	214.5	54.5 0.0 92	16.6	194.3	55.5 0.2 96			
WYCKOFF 2400 SS	105	P500	1,2,3,4	16.9	215.4	55.7 0.4 95	17.7	224.8	55.4 0.0 92	16.0	206.0	56.0 0.7 97			
WYCKOFF 2500 SS	106	P500	1,2,3,4	18.9	226.4	55.8 0.5 95	20.7	246.2 **	55.3 0.0 91	17.1	206.6	56.3 0.9 98			
AVERAGE				18.5	216.8	55.3 0.8 95	19.8	231.8	54.7 0.4 94	17.0	201.8	55.9 1.1 96			
HIGHEST				20.1	242.6	56.9 2.2 98	22.1	246.2	56.5 1.5 99	18.0	244.0	57.4 3.2 98			
LOWEST				16.9	203.7	53.9 0.1 89	17.7	214.5	53.3 0.0 86	16.0	186.2	54.4 0.1 91			
CV (%)				3.4	6.5	1.1 231.5 5	3.6	5.3	0.9 346.2 9.0	3.0	7.7	1.3 185.1 4			
LSD (5%)				0.4	8.2	0.4 1.4 3	0.6	10.5	0.4 1.5 7.0	0.4	12.5	0.6 2.4 3			

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

2 Year Averages 2019 - 2018

BRAND / HYBRID	RM	TRT	TRAIT	Late - TRIAL AVERAGE				Branch - Late				Cass - Late				Washtenaw - Late													
				%H2O	BU/A	Twt	%SL %Sd	%H2O	BU/A	Twt	%SL %Sd	%H2O	BU/A	Twt	%SL %Sd	%H2O	BU/A	Twt	%SL %Sd										
AGRIGOLD A639-40VT2RIB	109	P500	1,2	21.5	229.1 **	53.6	0.1	98	24.4	246.0 **	53.2	0.0	98	18.5	212.1 *	54.0	0.2	98											
DYNAGRO D49VC70	109	P250	1,2	20.8	223.1 *	55.8	1.0	94	22.6	231.2	54.9	0.4	94	18.9	214.9 *	56.6	1.6	94											
GOLDEN HARVEST G09Y24-3220A	109	C500	1,2,4,6,16	21.3	211.4	53.3	2.2	96	23.4	210.9	52.9	0.1	94	19.1	211.8 *	53.7	4.3	98											
LEGACY SEEDS L-6918 SSX	108	A500	1,2,3,4	21.1	210.9	55.5	1.8	99	22.7	213.0	54.9	2.2	98	19.5	208.7 *	56.0	1.4	99											
LG SEEDS LG5590VT2RIB	110	P500	1,2	21.9	227.5 *	53.6	1.1	99	24.9	241.1 *	53.1	0.5	97	18.9	213.8 *	54.0	1.6	100											
M&W SEEDS 44D81	108	C250	1,2	20.7	222.3 *	54.8	1.2	94	22.8	233.8 *	54.1	0.0	92	18.5	210.8 *	55.4	2.4	95											
M&W SEEDS 44R77	108	C250	1,2	20.0	225.3 *	53.8	0.0	97	22.4	231.1	53.5	0.0	97	17.6	219.4 *	54.0	0.0	97											
RENK RK842SSTX	112	P500	1,2,3,4	22.8	208.4	54.1	0.8	94	25.2	218.5	53.4	1.2	93	20.3	198.3	54.7	0.3	94											
RUPP XRD10-16	110	P250	1,2	20.6	228.8 *	55.4	0.9	97	22.8	237.0 *	54.5	0.3	97	18.3	220.6 **	56.3	1.4	97											
RUPP XRD12-49	112	P250	1,2	23.5	224.4 *	53.8	1.1	98	25.6	237.8 *	53.4	1.2	95	21.4	211.0 *	54.1	1.0	101											
WELLMAN W2911DP	110		1,2	20.3	218.8	55.3	1.6	97	22.0	232.4	54.4	0.5	95	18.6	205.1	56.2	2.6	98											
AVERAGE				21.3	220.9	54.5	1.1	97	23.5	230.3	53.8	0.6	95	19.1	211.5	55.0	1.4	97											
HIGHEST				23.5	229.1	55.8	2.2	99	25.6	246.0	54.9	2.2	98	21.4	220.6	56.6	4.3	101											
LOWEST				20.0	208.4	53.3	0.0	94	22.0	210.9	52.9	0.0	92	17.6	198.3	53.7	0.0	94											
CV (%)				5.2	7.3	1.4	144.6	5	5.7	6.5	1.2	311.3	6.0	4.1	7.7	1.5	105.7	3											
LSD (5%)				0.6	9.0	0.4	1.3	3	1.1	12.6	0.6	1.3	5.0	0.6	12.0	0.7	2.2	3											

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

TABLE 2E.

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

ZONE 2

2019		Early - TRIAL AVERAGE				Allegan - Early				Ingham - Early				Saginaw - Early										
BRAND / HYBRID	RM TRT	TRAIT	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd		
AG ARMOUR AA9509	95 C250	1,2,4,6	26.2	181.5	51.5	7.9	98	21.1	212.3	55.2	14.6	100	31.3	150.6	47.8	1.2	95							
AG ARMOUR AA9608	96 C250	1,2,4,6	25.1	189.4	53.0	2.6	98	19.4	223.0	57.2	2.7	99	30.7	155.7	48.7	2.4	96							
AG ARMOUR AA10102	101 C250	1,2,4,6	30.3	179.4	51.5	13.0	97	21.5	201.9	55.0	7.6	99	39.0	156.8	48.0	18.4	95							
AGRIGOLD A628-16VT2RIB	98 P500	1,2	28.9	181.8	51.8	4.8	97	18.9	216.5	55.8	9.3	99	38.9	147.1	47.8	0.3	94							
AGRIGOLD A629-22S TXRIB	99 P500	1,2,3,4	27.4	169.0	52.3	7.1	100	18.4	198.5	57.0	10.8	103	36.3	139.5	47.6	3.3	96							
DAIRYLAND SEED DS-3519AM	95 P500	1,2,4	24.3	191.2*	53.9	10.6	98	18.7	217.0	58.6	20.5	99	29.8	165.3	49.2	0.6	96							
DAIRYLAND SEED DS-3750AM	97 P500	1,2,4	25.6	183.8	54.1	6.0	96	18.9	220.8	59.1	11.4	97	32.2	146.8	49.0	0.6	95							
DAIRYLAND SEED DS-3715AM	97 P500	1,2,4	25.2	180.8	49.8	6.4	96	18.3	210.3	54.2	10.6	97	32.0	151.3	45.3	2.2	95							
DAIRYLAND SEED DS-4018AM	100 P500	1,2,4	28.1	183.0	51.4	6.8	94	19.5	217.2	55.8	9.1	96	36.6	148.8	46.9	4.4	91							
DYNAGRO D37VC64	97 P250	1,2	25.4	184.4	52.0	3.8	96	17.5	212.4	56.8	4.1	101	33.3	156.3	47.2	3.4	91							
DYNAGRO D39VC40	99 P250	1,2	26.3	173.1	51.7	2.3	97	17.8	210.6	56.0	4.6	100	34.8	135.5	47.3	0.0	93							
FS InVision FS5098X RIB	100 P250	1,2,3,4	28.0	198.3*	51.9	2.0	98	20.4	225.8*	55.8	3.3	99	35.5	170.7	47.9	0.6	97							
FS InVision FS51QX1 RIB	101 P500	1,2,3,4	29.0	181.1	52.3	5.8	97	18.9	208.1	56.7	11.0	98	39.1	154.0	47.8	0.6	96							
GOLDEN HARVEST G95D32-3220	95 C250	1,2,4,6	25.1	199.8*	53.0	2.4	98	19.1	235.5**	56.9	1.4	101	31.0	164.1	49.0	3.4	94							
GOLDEN HARVEST G97N86-3220	97 C250	1,2,4,6	25.0	183.0	51.3	5.2	98	19.9	213.3	55.2	10.4	101	30.1	152.7	47.4	0.0	94							
GOLDEN HARVEST G00H12-3010	100 C250	1,2,4	25.9	180.9	52.7	4.6	99	19.3	208.0	56.3	2.9	100	32.4	153.8	49.0	6.3	97							
INTEGRA 4782	97 P250	1,2	25.3	182.8	51.5	2.5	96	17.5	203.5	56.9	3.8	99	33.1	162.1	46.1	1.2	93							
INTEGRA 5081	100 P250	1,2,18	27.5	179.3	51.3	2.1	99	18.0	196.3	54.9	2.9	101	37.0	162.2	47.7	1.3	96							
LEGACY SEEDS L-3419 VT2P	94 A500	1,2	24.4	189.0	53.0	3.8	96	17.9	213.3	56.8	7.3	99	30.9	164.7	49.1	0.3	92							
LEGACY SEEDS L-3617 VT2P	96 A250	1,2	26.0	184.6	52.1	1.7	93	17.9	210.9	56.7	1.8	96	34.0	158.3	47.5	1.6	89							
LEGACY SEEDS L-4118 VT2P	99 A250	1,2	27.2	174.8	51.9	6.6	99	18.0	204.9	56.4	9.2	101	36.3	144.6	47.3	3.9	97							
LEGACY SEEDS L-4248 VT2P	100 A500	1,2	27.2	192.9*	51.5	6.9	96	18.5	209.5	55.2	11.6	98	35.9	176.2*	47.7	2.2	94							
LEGEND 9895 VT2PRIB	95	1,2	26.7	177.5	52.5	4.0	96	18.1	208.6	56.9	3.3	99	35.3	146.4	48.1	4.7	93							
LEGEND 9997 GENSSRIB	97	1,2,3,4	27.1	186.8	53.1	8.6	99	18.8	204.5	57.4	14.2	100	35.4	169.0	48.7	3.0	98							
LEGEND 9999 VT2PRIB	99	1,2	26.8	193.4*	51.7	8.5	98	19.3	226.2*	55.4	3.1	102	34.2	160.6	48.0	13.8	93							
LG SEEDS LG44C27VT2RIB	94 P500	1,2	24.6	188.4	52.5	3.3	96	17.6	206.8	56.2	6.2	100	31.5	170.0	48.7	0.4	92							
LG SEEDS LG5465VT2RIB	97 P500	1,2	26.3	185.1	52.7	4.6	98	18.0	211.5	57.1	7.0	100	34.6	158.6	48.3	2.1	96							
LG SEEDS LG5505VT2RIB	100 P500	1,2	26.5	182.6	52.6	5.0	96	18.2	208.2	57.4	9.3	97	34.7	157.0	47.8	0.6	94							
LG SEEDS LG51C48VT2PRO	101 P500	1,2	28.6	199.9**	51.2	7.0	99	19.4	234.6*	55.3	9.7	102	37.8	165.1	47.1	4.3	95							
LOCAL SEED ZS9598 5222EZ	95 R500	1,2,4,6	25.6	181.9	51.3	6.8	96	20.0	214.5	55.2	12.1	97	31.2	149.2	47.3	1.5	95							
LOCAL SEED ZS9796 3220EZ	97 R500	1,2,4,6	26.4	190.9*	53.0	5.2	98	19.2	229.1*	57.4	1.8	99	33.6	152.7	48.5	8.6	97							
LOCAL SEED LC9888 VT2PRIB	98 R500	1,2	24.7	168.5	53.6	5.9	100	17.7	189.6	58.3	10.5	100	31.7	147.4	48.8	1.2	99							
LOCAL SEED LC0057 SXXRIB	100 R500	1,2,3,4	28.2	180.2	51.6	2.6	96	20.5	209.1	54.6	3.2	100	35.9	151.2	48.6	1.9	92							
M&W SEEDS 47T16	90 C250	1,2	22.3	178.6	52.5	2.0	97	17.5	192.8	55.6	1.2	99	27.0	164.4	49.3	2.8	95							
M&W SEEDS 46P76	97 C250	1,2	26.1	188.1	51.7	0.6	97	17.6	221.8	56.3	1.2	100	34.6	154.3	47.1	0.0	94							
M&W SEEDS 46T29	99 C250	1,2	26.0	199.1*	51.9	6.2	99	17.7	223.7*	56.3	6.3	101	34.3	174.4*	47.5	6.0	96							
M&W SEEDS 45T56	100 C250	1,2	27.5	195.2*	51.6	4.3	98	18.9	224.8*	55.1	7.0	100	36.1	165.5	48.0	1.6	96							
RENK RK717SS TX	95 P500	1,2,3,4	27.9	180.8	52.6	13.5	96	19.5	216.8	56.4	15.3	96	36.2	144.8	48.7	11.7	96							
RENK RK710DGV T2P	98 P250	1,2,18	31.3	188.5	51.0	6.8	97	21.1	225.0*	54.6	9.2	98	41.5	151.9	47.4	4.3	95							
RUPP XRJ94-91	94 P250	1,2,3,4	25.3	186.7	51.7	3.5	97	19.1	214.5	56.2	5.3	101	31.4	158.8	47.2	1.6	92							
RUPP XRD96-13	96 C250	1,2,4,6	25.4	191.0*	52.4	9.2	98	19.2	230.7*	57.0	3.5	101	31.5	151.3	47.8	14.9	95							
RUPP XRD97-95	97 P250	1,2	26.7	182.3	52.6	3.6	96	18.1	207.3	56.4	5.5	97	35.2	157.3	48.8	1.6	94							
RUPP XRJ98-52	98 P500	1,2	25.7	195.2*	51.9	5.4	94	18.3	218.2	55.5	7.2	98	33.0	172.1*	48.2	3.5	90							
RUPP XRD01-90	101 P250	1,2	28.8	182.6	52.6	4.9	93	19.4	214.5	57.0	8.4	95	38.1	150.6	48.1	1.4	90							
SPECIALTY 26A236	96 P500	1,2,3,4	26.1	183.4	51.8	1.3	96	18.1	214.6	56.3	1.5	98	34.0	152.2	47.2	1.0	94							

SPECIALTY 27D728	97	P250	1,2	26.0	199.7 *	52.4	6.8	100	18.1	214.4	56.0	5.4	101	33.9	184.9 **	48.7	8.2	99
SPECIALTY 28D249	98	P250	1,2	26.3	194.9 *	51.1	3.8	97	17.3	220.7	55.0	6.3	98	35.3	169.0	47.2	1.2	95
WYCKOFF 2175 SS	97	P500	1,2,3,4	27.3	174.6	51.2	4.3	98	18.2	201.3	55.7	5.3	99	36.3	147.8	46.7	3.3	96
WYCKOFF 2187 VT2P	97	P500	1,2	27.4	179.8	52.3	4.5	97	18.4	203.4	56.2	6.9	95	36.4	156.2	48.3	2.1	98
WYCKOFF 2263 SS	101	P500	1,2,3,4	28.9	181.6	51.8	2.4	96	19.0	212.1	56.0	4.7	98	38.8	151.1	47.6	0.0	93
AVERAGE				26.6	185.2	52.1	5.2	97	18.7	213.4	56.2	7.0	99	34.4	157.0	47.9	3.3	95
HIGHEST				31.3	199.9	54.1	13.5	100	21.5	235.5	59.1	20.5	103	41.5	184.9	49.3	18.4	99
LOWEST				22.3	168.5	49.8	0.6	93	17.3	189.6	54.2	1.2	95	27.0	135.5	45.3	0.0	89
CV (%)				4.4	5.9	1.4	96.4	4	3.4	4.9	1.2	77.7	3	4.4	7.2	1.5	134.7	4
LSD (5%)				1.0	9.0	0.6	4.1	3	0.7	12.3	0.8	6.4	3	1.8	13.2	0.9	5.2	5

2 Year Averages 2019 - 2018																			
BRAND /HYBRID	RM	TRT	TRAIT	Early - TRIAL AVERAGE				Alleghen - Early				Ingham - Early				Saginaw - Early			
				%H2O	BU/A	Twt	%SL %Sd	%H2O	BU/A	Twt	%SL %Sd	%H2O	BU/A	Twt	%SL %Sd	%H2O	BU/A	Twt	%SL %Sd
AGRIGOLD A629-22STXRIB	99	P500	1,2,3,4	23.1	196.7	53.3	3.6	98	18.1	213.2	56.7	5.4	97	28.1	180.2	49.9	1.7	98	
DAIRYLAND SEED DS-3519AM	95	P500	1,2,4	21.9	208.5	54.3	5.3	95	18.4	227.8	57.7	10.3	93	25.3	189.2	50.8	0.3	97	
DAIRYLAND SEED DS-3715AM	97	P500	1,2,4	22.4	206.2	50.7	3.2	93	18.5	226.4	53.7	5.3	91	26.2	185.9	47.7	1.1	94	
DAIRYLAND SEED DS-4018AM	100	P500	1,2,4	24.9	207.3	51.8	3.7	92	19.6	233.6 *	54.7	4.9	90	30.2	180.9	48.9	2.5	93	
DYNAGRO D37VC64	97	P250	1,2	22.3	199.7	52.7	2.1	95	17.2	220.6	56.0	2.5	97	27.3	178.8	49.4	1.7	93	
GOLDEN HARVEST G95D32-3220	95	C250	1,2,4,6	22.7	204.8	53.4	1.3	93	19.1	226.8	56.1	0.7	90	26.3	182.7	50.6	1.9	96	
LEGACY SEEDS L-3617 VT2P	96	A250	1,2	22.5	204.0	52.9	1.0	94	17.6	219.1	56.2	1.1	95	27.4	188.8	49.5	0.8	92	
LEGEND 9999 VT2PRIB	99		1,2	23.5	222.5 **	52.1	4.3	97	19.1	239.1 **	54.5	1.6	97	27.9	205.9 **	49.7	6.9	96	
LG SEEDS LG5465VT2RIB	97	P500	1,2	22.8	199.2	53.4	2.4	98	17.5	219.6	56.6	3.6	98	28.0	178.7	50.1	1.1	97	
LG SEEDS LG5505VT2RIB	100	P500	1,2	22.6	205.7	53.7	2.6	96	17.8	220.5	57.2	4.8	95	27.4	190.9	50.1	0.3	97	
M&W SEEDS 46P76	97	C250	1,2	22.1	204.7	52.8	0.5	96	17.1	224.0	56.0	0.6	95	27.0	185.4	49.5	0.3	96	
RUPP XRD97-95	97	P250	1,2	22.9	203.9	53.4	1.8	94	17.7	219.3	56.3	2.7	92	28.0	188.5	50.5	0.8	95	
SPECIALTY 26A236	96	P500	1,2,3,4	22.5	203.6	52.5	0.6	95	17.7	221.1	55.8	0.7	94	27.3	186.0	49.2	0.5	95	
SPECIALTY 27D728	97	P250	1,2	22.8	211.1	53.1	3.4	100	18.3	233.7 *	55.6	2.7	100	27.2	188.4	50.5	4.1	99	
AVERAGE				22.8	205.6	52.9	2.6	95	18.1	224.6	55.9	3.3	95	27.4	186.4	49.7	1.7	96	
HIGHEST				24.9	222.5	54.3	5.3	100	19.6	239.1	57.7	10.3	100	30.2	205.9	50.8	6.9	99	
LOWEST				21.9	196.7	50.7	0.5	92	17.1	213.2	53.7	0.6	90	25.3	178.7	47.7	0.3	92	
CV (%)				3.8	6.4	1.5	78.3	4	3.5	5.4	1.3	70.3	4	4.0	7.7	1.5	121.6	4	
LSD (5%)				0.5	6.6	0.4	1.7	2	0.5	9.8	0.6	3.2	3	1.0	10.8	0.6	2.6	3	

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

2 Year Averages 2019 - 2018		Late - TRIAL AVERAGE										Alleghan - Late					Ingham - Late					Saginaw - Late							
BRAND / HYBRID	RM	TRT	TRAIT	%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	
AGRIGOLD A635-54VT2RIB	105	P500	1,2	27.4	187.4	52.6	1.2	97	21.8	213.9	54.8	1.6	99	33.0	160.8	50.3	0.7	95											
DAIRYLAND SEED DS-4318AM	103	P500	1,2,4	25.9	202.6**	51.8	7.5	95	20.4	226.2*	54.7	12.2	94	31.3	178.9**	48.8	2.7	95											
DAIRYLAND SEED DS-4329AM	103	P500	1,2,4	28.6	200.9*	50.0	0.3	94	22.3	227.3**	52.2	0.0	94	34.8	174.5*	47.8	0.6	94											
DYNAGRO D44VC40	103	P250	1,2	25.0	183.0	51.6	1.2	95	19.0	209.2	54.8	1.8	95	31.0	156.8	48.4	0.6	95											
GOLDEN HARVEST G03C84-3120	103	C250	1,2,4	26.6	189.0	50.9	12.7	96	22.1	208.6	53.1	17.6	96	31.1	169.4*	48.6	7.8	95											
GOLDEN HARVEST G06Q68-3220	106	C250	1,2,4,6	27.3	183.8	50.8	15.0	97	22.0	198.5	53.4	27.7	96	32.6	169.0*	48.1	2.3	97											
LEGEND 9804 GENSSRIB	104		1,2,3,4	25.2	193.1	52.7	1.1	95	20.0	210.4	55.5	0.8	93	30.3	175.7*	49.8	1.3	96											
LG SEEDS LG5525VT2RIB	105	P500	1,2	27.8	190.0	52.4	0.6	97	21.5	214.2	55.1	0.8	97	34.0	165.8*	49.6	0.4	96											
M&W SEEDS 45R69	103	C250	1,2	25.2	193.1	51.9	3.9	94	19.8	213.0	54.9	2.8	92	30.6	173.2*	48.9	5.0	95											
SPECIALTY 32A886	102	P500	1,2,3,4	26.5	200.2*	50.5	1.0	96	20.5	222.7*	53.1	1.7	98	32.5	177.6*	47.8	0.3	94											
SPECIALTY 34A007	104	P500	1,2,3,4	26.4	190.7	52.4	4.9	95	20.8	207.0	55.2	9.0	93	32.0	174.3*	49.5	0.8	96											
AVERAGE				26.5	192.2	51.6	4.5	96	20.9	213.7	54.2	6.9	95	32.1	170.5	48.9	2.0	95											
HIGHEST				28.6	202.6	52.7	15.0	97	22.3	227.3	55.5	27.7	99	34.8	178.9	50.3	7.8	97											
LOWEST				25.0	183.0	50.0	0.3	94	19.0	198.5	52.2	0.0	92	30.3	156.8	47.8	0.3	94											
CV (%)				5.1	6.4	2.2	142.8	4	4.5	5.9	1.9	124.9	4	5.8	13.8	2.3	159.8	6											
LSD (5%)				0.8	7.0	0.7	4.9	2	0.8	10.2	0.9	8.8	3	1.7	18.0	0.9	4.1	4											

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

BRAND / HYBRID	RM	TRT	TRAIT	Early - TRIAL AVERAGE						Huron - Early						Mason - Early						Montcalm - Early					
				%H2O		BUJA		Twt		%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	
2019																											
AG ARMOUR AA9509	95	C250	1,2,4,6	28.0	206.8	51.4	0.0	97	32.8	184.8*	49.0	0.0	95	26.2	234.9*	52.7	0.0	97	25.0	200.7	52.6	0.0	98				
AG ARMOUR AA9608	96	C250	1,2,4,6	27.8	207.7*	52.3	0.1	99	33.6	183.5	49.2	0.3	97	25.8	236.0*	54.0	0.0	100	23.9	203.5	53.7	0.0	100				
DAIRYLAND SEED DS-3550Q	95	P500	1,2,3,4	29.4	204.8	49.6	0.0	98	34.9	181.4	46.7	0.0	97	27.5	238.0*	51.7	0.0	98	25.9	194.9	50.3	0.0	100				
DAIRYLAND SEED DS-3519AM	95	P500	1,2,4	26.7	208.9*	53.6	0.3	99	30.5	191.3*	49.2	0.0	97	25.7	241.3*	55.1	0.6	100	24.0	194.2	56.5	0.3	99				
DAIRYLAND SEED DS-3750AM	97	P500	1,2,4	27.5	196.7	54.0	0.2	95	32.5	166.1	50.3	0.0	92	26.0	237.3*	55.4	0.0	97	24.0	186.8	56.4	0.6	97				
DAIRYLAND SEED DS-3715AM	97	P500	1,2,4	27.6	208.0*	50.3	0.5	96	31.4	188.9*	46.7	0.0	93	27.0	242.2*	51.6	1.5	98	24.4	192.9	52.5	0.0	98				
DYNAGRO D37VC64	97	P250	1,2	29.3	194.3	50.7	0.0	98	37.0	186.7*	48.7	0.0	97	26.1	230.8	51.9	0.0	101	24.8	165.5	51.5	0.0	97				
FS InVision FS46SV1 RIB	95	C250	1,2	28.2	196.6	51.4	1.7	98	35.9	195.6*	49.0	0.0	95	25.5	213.8	52.4	3.3	100	23.1	180.4	52.8	1.8	100				
FS InVision FS47TV1 RIB	97	C250	1,2	30.8	198.2	51.1	1.2	99	38.4	169.5	49.3	0.0	97	27.5	221.2	52.4	3.5	99	26.5	203.9	51.7	0.0	101				
GOLDEN HARVEST G91V51-3110A	91	C500	1,2,4,6,16	25.3	216.7**	52.3	10.2	100	26.2	196.1**	49.7	0.6	98	25.5	235.5*	53.9	30.0	101	24.3	218.4**	53.2	0.0	101				
GOLDEN HARVEST G90Y04-3220A	92	C250	1,2,4,6,16	28.7	200.6	51.0	0.0	97	34.9	168.7	47.8	0.0	94	25.7	240.3*	52.9	0.0	98	25.4	192.9	52.2	0.0	98				
GOLDEN HARVEST G95D32-3220	95	C250	1,2,4,6	26.7	203.3	52.3	0.2	98	30.4	179.0	49.8	0.0	97	25.9	234.5	53.6	0.0	99	23.8	196.5	53.6	0.6	98				
INTEGRA 4782	97	P250	1,2	29.6	191.9	50.7	0.0	97	37.5	164.6	48.4	0.0	95	26.2	235.7*	52.3	0.0	99	25.0	175.5	51.5	0.0	97				
LEGACY SEEDS L-3419 VT2P	94	A500	1,2	27.5	194.7	52.1	0.5	98	33.5	185.8*	49.3	0.0	96	25.6	228.3	53.3	1.5	99	23.3	170.0	53.7	0.0	99				
LEGACY SEEDS L-3517 VT2P	95	A250	1,2	28.4	201.6	52.4	0.2	96	36.0	191.5*	49.3	0.0	94	25.5	234.4	54.4	0.0	98	23.7	178.9	53.5	0.6	95				
LEGACY SEEDS L-3617 VT2P	96	A250	1,2	28.5	193.1	51.4	0.8	94	34.3	184.7*	49.4	1.8	94	26.3	227.5	52.4	0.0	94	25.0	167.0	52.4	0.6	93				
LEGEND 9993 GENSSRIB	93		1,2,3,4	28.8	177.4	51.3	0.2	96	34.7	174.6	48.6	0.3	97	27.1	199.7	52.8	0.0	98	24.5	157.8	52.6	0.3	94				
LEGEND 9895 VT2PRIB	95		1,2	29.1	196.3	52.2	0.2	98	37.6	177.7	49.2	0.3	97	25.6	223.1	53.5	0.0	98	24.0	188.2	53.8	0.3	99				
LEGEND 9895 VIP3220 EZREF	95		1,2,4,6	27.1	201.6	52.4	7.9	97	31.2	181.6	49.2	0.0	95	26.2	229.2	53.7	23.5	100	23.8	194.1	54.4	0.3	96				
LG SEEDS LG5410VT2RIB	91	P500	1,2	29.8	200.2	51.0	0.6	101	37.9	181.9	49.1	1.8	99	26.5	240.3*	52.3	0.0	104	24.9	178.5	51.5	0.0	101				
LG SEEDS LG42C63VT2RIB	92	P500	1,2	26.4	190.8	51.2	0.5	96	32.5	181.1	48.4	0.0	96	24.5	228.2	53.3	0.3	98	22.3	163.1	51.9	1.1	93				
LG SEEDS LG44C27VT2RIB	94	P500	1,2	28.0	203.1	51.4	0.4	98	35.1	185.8*	48.7	0.6	96	25.0	237.0*	53.1	0.0	99	23.8	186.4	52.3	0.6	99				
LG SEEDS LG5465VT2RIB	97	P500	1,2	29.0	202.8	52.2	0.1	100	36.1	194.1*	49.7	0.0	98	26.1	226.1	53.8	0.3	101	24.7	188.2	53.0	0.0	100				
LOCAL SEED LC9278 SXXRIB	92	R500	1,2,3,4	27.9	186.7	52.0	0.3	96	34.9	169.4	49.4	0.0	93	24.9	219.7	53.9	0.9	97	23.9	170.9	52.8	0.0	97				
LOCAL SEED ZS9598 5222EZ	95	R500	1,2,4,6	27.4	209.2*	51.5	0.3	98	31.5	187.8*	48.4	0.0	94	26.0	241.8*	52.7	0.3	101	24.7	197.9	53.3	0.6	98				
LOCAL SEED ZS9796 3220EZ	97	R500	1,2,4,6	27.3	209.7*	52.8	0.0	98	32.8	188.6*	50.0	0.0	95	25.5	241.0*	54.2	0.0	99	23.7	199.4	54.1	0.0	100				
M&W SEEDS 48R11	87	C250	1,2	24.3	189.9	53.1	10.5	97	26.2	189.1*	51.5	0.0	95	24.3	207.3	53.7	3.5	99	22.3	173.3	54.2	28.0	98				
M&W SEEDS 47T16	90	C250	1,2	27.0	195.3	51.4	13.9	98	29.9	185.5*	49.2	0.0	97	25.9	212.5	52.1	0.0	97	24.0	205.1*	53.5	27.8	99				
M&W SEEDS 46P76	97	C250	1,2	28.7	184.7	50.7	0.0	95	36.5	171.0	48.2	0.0	95	25.9	212.5	52.1	0.0	97	23.7	170.5	51.7	0.0	94				
RENK RK433VT2P	92	P250	1,2	28.6	189.7	52.4	0.1	95	37.3	178.4	49.6	0.0	92	25.0	213.7	54.2	0.0	95	23.6	176.9	53.4	0.3	97				
RENK RK561DGV2P	95	P250	1,2,18	28.5	206.7	51.3	0.0	97	35.2	183.0	48.8	0.0	94	25.2	240.1*	52.9	0.0	101	25.2	196.9	52.2	0.0	96				
RENK RK593VT2P	96	P250	1,2	28.2	204.2	52.0	0.4	99	34.8	183.3	49.2	1.2	98	25.8	249.5**	53.9	0.0	99	24.0	179.7	52.9	0.0	100				
RENK 95-104-3010	97		1,2,4	31.2	202.8	50.0	0.1	96	38.2	165.3	47.9	0.3	93	28.8	244.2*	51.2	0.0	98	26.7	199.0	50.8	0.0	98				
RENK RK587VT2P	97	P250	1,2	29.6	184.3	50.5	0.0	98	37.1	169.9	48.5	0.0	97	26.4	225.6	52.4	0.0	99	25.3	157.5	50.5	0.0	98				
RUPP XRJ94-91	94	P250	1,2,3,4	27.9	195.0	51.6	0.5	99	35.0	177.2	49.3	0.0	97	24.9	233.6	53.3	0.0	100	23.9	174.3	52.2	1.5	99				
RUPP XRJ96-13	96	C250	1,2,4,6	27.3	208.7*	52.2	0.2	98	31.7	194.9*	49.9	0.6	100	25.9	232.9	53.4	0.0	97	24.2	198.2	53.3	0.0	98				
RUPP XRJ97-95	97	P250	1,2	28.9	196.1	52.7	0.1	99	35.8	173.5	51.2	0.0	97	26.4	244.5*	53.4	0.3	101	24.6	170.4	53.4	0.0	100				
SEEDWAY SW3569 5222	93	C250	1,2,3,4,6	27.8	192.8	50.6	0.3	98	32.1	180.1	48.4	0.0	95	25.7	223.1	51.7	0.0	100	25.7	175.1	51.6	0.9	98				
SEEDWAY SW3768 GENSS	95	C250	1,2,3,4	27.2	192.3	51.7	0.0	99	32.5	176.6	49.6	0.0	97	25.5	233.9	53.0	0.0	101	23.5	166.5	52.6	0.0	100				
AVERAGE				28.1	198.6	51.7	1.3	98	34.0	181.2	49.1	0.2	96	25.9	231.0	53.1	1.8	99	24.3	184.3	52.8	1.7	98				
HIGHEST				31.2	216.7	54.0	13.9	101	38.4	196.1	51.5	1.8	100	28.8	249.5	55.4	30.0	104	26.7	218.4	56.5	28.0	101				
LOWEST				24.3	177.4	49.6	0.0	94	26.2	164.6	46.7	0.0	92	24.3	199.7	51.2	0.0	94	22.3	157.5	50.3	0.0	93				
CV (%)				6.4	6.9	1.9	654.9	3	5.4	5.5	1.7	470.0	3	3.2	5.5	1.3	614.7	3	2.7	6.3	2.0	587.2	3				
LSD (5%)				1.2	9.3	0.7	6.0	2	2.1	11.7	1.0	1.1	3	1.0	14.9	0.8	13.2	3	0.8	13.7	1.2	11.7	3				

2 Year Averages 2019 - 2018

BRAND / HYBRID	RM	TRT	TRAIT	Early - TRIAL AVERAGE						Huron - Early						Mason - Early						Montcalm - Early					
				%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd				
DAIRYLAND SEED DS-3519AM	95	P500	1,2,4	23.1	206.8 *	54.0	1.9	98	25.4	192.6 *	51.6	0.0	98	21.9	230.7 *	54.8	5.4	98	21.9	197.1	55.7	0.2	98				
DAIRYLAND SEED DS-3715AM	97	P500	1,2,4	23.8	205.7 *	50.6	0.3	96	26.4	179.7	48.8	0.0	95	22.6	240.2 **	51.1	0.8	96	22.3	197.2	51.8	0.2	97				
DYNAGRO D37V064	97	P250	1,2	24.0	198.0	51.8	0.3	98	28.4	184.8	51.2	0.0	98	21.6	211.4	52.0	0.7	99	22.0	197.9	52.1	0.3	97				
GOLDEN HARVEST G90Y04-3220A	92	C250	1,2,4,6,16	23.9	199.2	52.0	1.0	96	26.8	168.1	51.1	0.0	96	22.3	221.0	51.7	2.7	96	22.7	208.4 *	53.2	0.4	96				
GOLDEN HARVEST G95D32-3220	95	C250	1,2,4,6	23.0	206.3 *	53.0	1.4	98	25.2	178.6	52.0	0.1	99	22.1	229.8	53.3	3.7	97	21.8	210.4 **	53.6	0.4	98				
LEGACY SEEDS L-3517 VT2P	95	A250	1,2	23.5	200.9	53.0	0.4	96	27.6	183.8	51.8	0.0	96	21.5	226.1	53.6	0.4	96	21.4	192.8	53.5	0.7	95				
LEGACY SEEDS L-3617 VT2P	96	A250	1,2	23.6	203.5 *	51.9	0.5	95	26.4	187.9	51.3	1.2	96	22.0	227.6	52.2	0.0	93	22.5	194.9	52.3	0.3	95				
LEGEND 9895 VT2PRIB	95		1,2	24.1	201.5	52.8	0.4	96	28.5	186.8	51.8	0.2	98	22.4	217.0	52.8	0.8	92	21.5	200.7 *	53.8	0.3	97				
LG SEEDS LG5410VT2RIB	91	P500	1,2	23.9	191.7	52.2	0.4	99	28.5	164.2	51.9	1.2	99	21.5	226.0	52.3	0.1	100	21.6	185.0	52.5	0.0	99				
LG SEEDS LG5465VT2RIB	97	P500	1,2	24.0	209.4 **	52.7	0.1	98	28.2	200.0 **	51.5	0.1	98	22.1	224.7	53.3	0.3	98	21.8	203.6 *	53.4	0.0	99				
M&W SEEDS 48R11	87	C250	1,2	20.3	190.8	53.9	6.8	98	21.9	190.9 *	53.7	0.6	97	19.1	205.6	53.6	5.6	98	19.8	175.9	54.5	14.2	98				
M&W SEEDS 46P76	97	C250	1,2	23.5	201.8	52.0	0.0	94	28.1	192.7 *	51.1	0.0	96	21.1	214.8	52.5	0.0	94	21.2	197.9	52.3	0.0	92				
RENK RK587VT2P	97	P250	1,2	24.5	194.1	51.3	0.3	95	28.6	182.6	50.6	0.0	97	21.5	211.8	52.4	0.5	94	23.3	187.9	51.0	0.3	95				
RUPP XRD97-95	97	P250	1,2	24.0	195.3	53.1	0.5	96	27.6	163.0	52.8	0.2	96	22.5	229.5	52.9	1.0	94	21.8	193.3	53.6	0.2	99				
AVERAGE				23.5	200.4	52.5	1.0	97	27.0	182.5	51.5	0.3	97	21.7	222.6	52.7	1.5	96	21.8	195.9	53.1	1.3	97				
HIGHEST				24.5	209.4	54.0	6.8	99	28.6	200.0	53.7	1.2	99	22.6	240.2	54.8	5.6	100	23.3	210.4	55.7	14.2	99				
LOWEST				20.3	190.8	50.6	0.0	94	21.9	163.0	48.8	0.0	95	19.1	205.6	51.1	0.0	92	19.8	175.9	51.0	0.0	92				
CV (%)				5.6	7.2	1.8	538.0	3	4.9	7.6	5.9	377.2	3	3.6	5.5	1.3	454.3	4	3.4	6.3	1.8	532.0	3				
LSD (5%)				0.7	6.8	0.5	3.2	1	1.2	11.4	2.5	0.6	2	0.7	10.2	0.6	7.5	3	0.6	10.0	0.8	5.9	2				

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

TABLE 3L.

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

ZONE 3

2019			Late - TRIAL AVERAGE						Huron - Late						Mason - Late						Montcalm - Late					
BRAND / HYBRID	RM	TRT	TRAIT	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd			
AG ARMOUR AA10252	102	C250	1,2,4,6	31.6	190.8	52.2	0.0	98	39.1	174.0	50.4	0.0	95	27.9	207.3	53.5	0.0	99	27.7	191.0	52.6	0.0	99			
DAIRYLAND SEED DS-3810Q	98	P500	1,2,3,4	30.2	210.8 *	50.2	0.1	96	39.2	189.2 *	47.6	0.0	95	26.6	245.2 *	51.6	0.0	97	24.8	198.0 *	51.3	0.3	96			
DAIRYLAND SEED DS-4018AM	100	P500	1,2,4	32.1	195.9	51.2	0.0	93	41.4	173.4	49.3	0.0	91	28.2	235.1	52.5	0.0	95	26.6	179.1	51.7	0.0	93			
DAIRYLAND SEED DS-4310AM	103	P500	1,2,4	35.2	203.1	51.4	0.1	97	43.9	169.1	50.0	0.0	94	31.3	246.1 *	53.4	0.0	100	30.4	194.0	50.9	0.3	96			
DAIRYLAND SEED DS-4440AM	104	P500	1,2,4	33.6	207.1	51.1	1.3	97	43.3	175.3	48.5	0.0	93	30.3	243.4 *	53.5	3.9	98	27.2	202.7 *	51.4	0.0	99			
DYNAGRO D39DC43	99	P250	1,2,18	32.4	187.9	50.6	0.0	99	43.7	173.7	49.3	0.0	96	27.6	211.6	51.3	0.0	100	25.8	178.3	51.2	0.0	100			
DYNAGRO D39VC40	99	P250	1,2	29.8	187.6	51.2	0.0	98	38.9	179.7	49.6	0.0	95	26.3	248.1	52.2	0.0	100	24.3	174.9	51.9	0.0	98			
FS in/Vision FS5098X RIB	100	P250	1,2,3,4	31.7	214.0 *	51.5	0.0	98	42.0	190.8 *	49.4	0.0	97	27.2	247.3 *	53.1	0.0	98	26.0	203.8 *	51.9	0.0	98			
FS in/Vision FS51QX1 RIB	101	P500	1,2,3,4	31.5	192.3	51.3	0.2	98	42.0	172.8	48.7	0.6	97	26.8	239.5 *	53.6	0.0	99	25.8	164.6	51.5	0.0	99			
FS in/Vision FS53ZX1 RIB	103	P500	1,2,3,4	31.5	200.9	51.2	0.9	99	41.3	189.5 *	49.3	1.8	98	28.1	229.6	53.0	0.0	101	25.1	183.5	51.2	0.9	98			
INTEGRA 5081	100	P250	1,2,18	31.2	201.6	51.3	0.0	97	41.5	188.0 *	49.4	0.0	97	27.1	230.9	53.3	0.0	97	25.0	186.0	51.3	0.0	97			
INTEGRA 5280	102	P250	1,2	31.6	210.8 *	52.2	0.0	99	39.6	192.8 **	50.4	0.0	97	29.3	248.2 *	53.9	0.0	100	25.8	191.3	52.3	0.0	99			
LEGACY SEEDS L-4118 VT2P	99	A250	1,2	30.2	200.7	52.0	0.1	100	39.7	190.3 *	50.2	0.0	98	25.9	235.4	53.8	0.0	101	24.9	176.4	52.1	0.3	101			
LEGACY SEEDS L-4248 VT2P	100	A500	1,2	32.9	218.4 **	51.7	0.0	97	42.3	190.4 *	50.0	0.0	98	29.8	255.4 *	53.9	0.0	95	26.6	209.3 **	51.1	0.0	97			
LEGACY SEEDS L-5217 VT2P	102	P500	1,2	31.6	204.0	51.1	0.0	96	41.1	186.8 *	50.0	0.0	96	27.3	225.9	52.3	0.0	96	26.5	199.4 *	51.0	0.0	96			
LG SEEDS LG5505VT2RIB	100	P500	1,2	29.3	194.5	52.4	0.0	98	38.0	178.8	50.0	0.0	97	25.9	219.0	54.0	0.0	99	23.9	185.6	53.2	0.0	98			
LG SEEDS LG51C48VT2PRO	101	P500	1,2	32.5	214.4 *	50.7	0.0	98	41.1	185.7 *	49.2	0.0	97	28.9	256.8 **	52.1	0.0	101	27.5	200.7 *	50.7	0.0	96			
LOCAL SEED LC9888 VT2PRIB	98	R500	1,2	28.4	177.8	52.6	0.2	97	36.2	175.7	49.7	0.0	95	25.4	200.8	54.3	0.0	99	23.5	156.9	53.8	0.6	98			
LOCAL SEED LC0057 SXXRIB	100	R500	1,2,3,4	31.9	191.8	51.1	0.0	99	40.8	171.8	49.3	0.0	96	28.5	229.3	52.5	0.0	100	26.5	174.2	51.4	0.0	100			
LOCAL SEED LC0297 SXXRIB	102	R500	1,2,3,4	34.6	194.0	50.6	0.0	97	45.7	167.6	49.8	0.0	95	28.8	226.4	51.6	0.0	98	29.2	188.0	50.3	0.0	99			
LOCAL SEED ZS0398 3110	103	R500	1,2,4,6	32.2	195.8	52.2	0.3	97	41.0	162.4	49.9	0.0	96	28.8	227.1	53.1	0.9	99	26.7	197.8 *	53.6	0.0	96			
LOCAL SEED LC0488 SXXRIB	104	R500	1,2,3,4	32.5	205.1	51.2	0.2	97	42.8	183.5 *	49.6	0.7	94	27.4	235.3	52.6	0.0	99	27.3	196.6	51.5	0.0	99			
RENK RK579DGV2P	98	P250	1,2,18	30.1	199.4	51.1	0.0	97	39.2	190.9 *	49.5	0.0	97	26.4	223.9	52.6	0.0	99	24.7	183.3	51.3	0.0	96			
RUPP XRJ98-52	98	P500	1,2	30.8	205.8	51.3	0.2	96	38.9	185.5 *	49.4	0.3	98	28.0	236.2	53.0	0.0	95	25.5	195.6	51.4	0.3	96			
RUPP XRD01-90	101	P250	1,2	31.6	203.4	52.3	0.3	98	41.0	184.3 *	50.2	0.0	97	27.8	230.1	53.6	0.0	98	26.1	195.8	53.2	0.9	99			
SEEDWAY SW4000 GENSS	100	C250	1,2,3,4	29.9	192.7	52.1	0.1	97	37.5	192.0 *	49.3	0.0	94	27.6	219.4	53.8	0.0	100	24.5	166.7	53.2	0.3	98			
SEEDWAY SW4010 GENSS	100	C250	1,2,3,4	31.5	189.0	50.0	0.0	98	38.9	168.4	48.1	0.0	98	29.2	225.5	51.1	0.0	99	26.3	173.1	50.9	0.0	97			
AVERAGE				31.6	199.6	51.4	0.1	97	40.7	180.8	49.5	0.1	96	27.9	231.1	52.9	0.2	99	26.1	186.9	51.8	0.1	98			
HIGHEST				35.2	218.4	52.6	1.3	100	45.7	192.8	50.4	1.8	98	31.3	256.8	54.3	3.9	101	30.4	209.3	53.8	0.9	101			
LOWEST				28.4	177.8	50.0	0.0	93	36.2	162.4	47.6	0.0	91	25.4	200.8	51.1	0.0	95	23.5	156.9	50.3	0.0	93			
CV (%)				4.4	6.1	1.4	620.8	3	5.1	5.5	1.5	632.5	3	3.6	6.7	1.4	720.4	2	3.0	5.5	1.3	376.6	3			
LSD (5%)				0.9	8.2	0.5	0.6	2	2.4	11.7	0.9	0.9	4	1.2	18.3	0.9	1.5	3	0.9	12.0	0.8	0.6	3			

2 Year Averages 2019 - 2018			Late - TRIAL AVERAGE						Huron - Late						Mason - Late						Montcalm - Late					
BRAND / HYBRID	RM	TRT	TRAIT	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd			
DAIRYLAND SEED DS-4018AM	100	P500	1,2,4	27.1	209.3 **	51.3	3.6	95	31.7	192.5 *	50.9	0.2	93	24.7	232.2 **	51.6	10.2	97	25.0	203.1 *	51.4	0.3	94			
DYNAGRO D39DC43	99	P250	1,2,18	26.4	199.8	50.7	0.0	97	32.4	187.7 *	50.5	0.0	95	23.1	214.7	50.8	0.0	98	23.7	197.1	50.8	0.0	98			
LG SEEDS LG5505VT2RIB	100	P500	1,2	24.2	203.9 *	53.0	0.5	98	28.2	193.5 **	52.6	0.4	97	22.4	215.8	53.3	0.6	98	22.0	202.5 *	53.2	0.6	98			
RENK RK579DGV2P	98	P250	1,2,18	25.3	204.4 *	51.5	0.3	97	30.8	185.4 *	51.5	0.0	98	22.5	218.4	51.8	0.9	95	22.7	209.4 **	51.3	0.0	97			
AVERAGE				25.8	204.4	51.6	1.1	97	30.8	189.8	51.4	0.1	96	23.2	220.3	51.9	2.9	97	23.3	203.0	51.7	0.2	97			
HIGHEST				27.1	209.3	53.0	3.6	98	32.4	193.5	52.6	0.4	98	24.7	232.2	53.3	10.2	98	25.0	209.4	53.2	0.6	98			
LOWEST				24.2	199.8	50.7	0.0	95	28.2	185.4	50.5	0.0	93	22.4	214.7	50.8	0.0	95	22.0	197.1	50.8	0.0	94			
CV (%)				4.0	6.4	1.6	1099.0	3	4.3	6.5	1.7	699.1	3	3.9	6.1	1.6	842.1	3	2.9	6.3	1.4	724.1	3			
LSD (5%)				0.6	6.1	0.4	2.2	1	1.4	9.9	0.7	0.8	3	0.9	11.6	0.7	6.4	2	0.6	10.0	0.6	1.1	2			

CODE NUMBERS FOR HYBRID TRAITS

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

TREATMENT CODES FOR SEED APPLIED INSECTICIDES

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



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

BRAND / HYBRID	RM	TRT	TRAIT	TRIAL AVERAGE						Iosco - Early			Osceola - Early			Presque Isle - Early							
				%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd					
2019																							
FS InVision FS35SV1 RIB	85	C250	1,2	33.5	165.6	50.0	0.0	93	27.5	196.8	50.2	0.0	96	43.4	126.8	48.8	0.0	90	29.7	173.2*	50.9	0.0	93
FS InVision FS37TV1 RIB	87	C250	1,2	34.7	168.7	49.3	0.7	96	28.3	207.7*	49.7	2.1	98	43.9	133.1	48.3	0.0	95	31.8	165.4*	49.9	0.0	96
LEGACY SEEDS L-2347 VT2P	83	A250	1,2	34.5	164.4	50.0	0.2	98	26.4	201.5*	50.7	0.6	99	47.6	118.6	48.5	0.0	95	29.6	173.0*	50.8	0.0	99
LEGEND 47J086 VIP3220 EZREF	86		1,2,4,6	34.2	165.8	50.1	0.6	101	29.1	196.1	50.7	0.0	101	41.2	149.1**	49.2	0.0	99	32.4	152.2	50.3	1.9	104
LEGEND 9886 VT2PRIB	86		1,2	38.3	165.7	48.9	0.6	96	31.5	207.1*	49.0	1.2	97	46.3	124.9	48.2	0.0	94	37.2	165.0*	49.4	0.6	96
LEGEND 47J988 3120 EZREF	88		1,2,4	36.9	165.8	48.3	0.7	93	30.5	212.3*	49.0	0.6	99	45.0	141.3*	46.7	0.0	89	35.1	143.7	49.1	1.6	91
LG SEEDS LG5370VT2RIB	84	P500	1,2	32.9	175.0*	49.3	0.4	98	26.9	205.2*	49.8	0.3	98	42.0	141.2*	48.1	0.6	95	29.9	178.6**	50.1	0.3	100
LG SEEDS LG38C18VT2RIB	88	P500	1,2	36.8	154.1	48.5	0.0	97	28.9	201.0*	48.8	0.0	99	45.1	116.1	47.6	0.0	96	36.3	145.3	49.0	0.0	97
LOCAL SEED LC8597 VT2PRIB	85	R500	1,2	34.1	176.7**	50.0	0.2	95	28.0	215.7**	50.4	0.6	99	41.8	140.0*	48.6	0.0	90	32.5	174.4*	51.0	0.0	96
LOCAL SEED LC8667 SXXRIB	86	R500	1,2,3,4	38.4	151.7	48.1	1.5	88	32.1	181.3	47.8	4.6	91	45.8	126.5	47.4	0.0	91	37.3	147.2	49.0	0.0	83
M&W SEEDS 48R11	87	C250	1,2	33.6	174.2*	49.9	0.3	96	26.3	212.8*	51.2	0.9	99	42.3	146.2*	48.3	0.0	95	32.2	163.7	50.2	0.0	93
AVERAGE				35.3	166.2	49.3	0.5	96	28.7	203.4	49.8	1.0	98	44.0	133.1	48.2	0.1	94	33.1	162.0	50.0	0.4	95
HIGHEST				38.4	176.7	50.1	1.5	101	32.1	215.7	51.2	4.6	101	47.6	149.1	49.2	0.6	99	37.3	178.6	51.0	1.9	104
LOWEST				32.9	151.7	48.1	0.0	88	26.3	181.3	47.8	0.0	91	41.2	116.1	46.7	0.0	89	29.6	143.7	49.0	0.0	83
CV (%)				5.6	6.7	1.7	382.1	4	5.3	6.1	1.8	305.0	3	5.7	6.1	1.6	663.3	5	5.3	6.9	1.7	241.5	4
LSD (5%)				1.3	7.5	0.6	1.2	3	1.8	15.0	1.1	3.6	4	3.0	9.8	0.9	0.5	5	2.1	13.6	1.0	1.2	5

BRAND / HYBRID	RM	TRT	TRAIT	TRIAL AVERAGE						Iosco - Early			Osceola - Early			Presque Isle - Early							
				%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd					
2 Year Averages 2019 - 2018																							
LG SEEDS LG5370VT2RIB	84	P500	1,2	27.3	176.2	51.9	0.6	98	23.0	199.6	52.7	0.7	98	31.5	152.8*	51.1	0.5	97					
LG SEEDS LG38C18VT2RIB	88	P500	1,2	28.5	162.4	51.0	2.0	95	23.7	192.9	51.9	3.8	96	33.3	131.8	50.0	0.2	94					
M&W SEEDS 48R11	87	C250	1,2	27.3	186.0**	51.7	1.5	99	22.6	212.0**	53.1	2.5	99	31.9	160.0**	50.3	0.4	99					
AVERAGE				27.7	174.9	51.5	1.4	97	23.1	201.5	52.5	2.3	98	32.2	148.2	50.4	0.4	97					
HIGHEST				28.5	186.0	51.9	2.0	99	23.7	212.0	53.1	3.8	99	33.3	160.0	51.1	0.5	99					
LOWEST				27.3	162.4	51.0	0.6	95	22.6	192.9	51.9	0.7	96	31.5	131.8	50.0	0.2	94					
CV (%)				5.0	7.9	1.7	514.5	4	4.3	6.9	1.7	389.5	3	5.1	9.4	1.7	1755.0	4	5.3	6.9	1.7	241.5	4
LSD (5%)				0.9	7.1	0.5	2.4	2	0.9	11.6	0.7	5.5	3	1.8	10.9	0.8	2.5	4	2.1	13.6	1.0	1.2	5

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

TABLE 4L. IOSCO, OSCEOLA & PRESQUE ISLE COUNTY GRAIN TRIALS - LATE (90 Day and Later) ZONE 4

2019		TRIAL AVERAGE										Iosco - Early					Osceola - Early					Presque Isle - Late						
		BRAND / HYBRID	RM	TRT	TRAIT	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd			
AG ARMOUR AA9206	92	C250	1,2,4	39.0	144.1	48.6	0.0	92	30.8	201.2*	48.8	0.0	94	46.4	135.0	47.9	0.0	91	39.8	96.2	49.1	0.0	91	39.8	96.2	49.1	0.0	91
DAIRYLAND SEED DS-3030AM	90	P500	1,2,4	34.3	164.0*	47.2	0.4	98	28.4	204.7*	47.0	0.0	99	40.7	154.5*	46.1	0.0	97	33.9	132.8	48.4	1.2	97	33.9	132.8	48.4	1.2	97
DYNAGRO D37VC64	97	P250	1,2	44.5	155.0	48.8	0.7	99	36.9	197.9*	48.4	1.8	99	47.6	152.6	48.6	0.0	98	49.1	114.5	49.4	0.3	99	49.1	114.5	49.4	0.3	99
FS InVision FS41TV1 RIB`	91	C250	1,2	38.8	160.8*	48.4	0.1	98	33.1	191.8	48.0	0.3	100	42.8	163.0**	47.5	0.0	96	40.5	127.6	49.7	0.0	99	40.5	127.6	49.7	0.0	99
FS InVision FS45SV1 RIB	95	C250	1,2	41.1	155.8	48.9	0.2	100	35.3	198.9*	48.4	0.3	98	47.2	149.6	48.7	0.0	100	40.9	119.0	49.7	0.3	101	40.9	119.0	49.7	0.3	101
LEGACY SEEDS L-2918 VT2P	89	A500	1,2	37.4	164.6*	48.8	0.2	98	30.9	192.9*	48.0	0.0	100	44.4	151.2	48.2	0.0	94	37.0	149.7*	50.1	0.6	100	37.0	149.7*	50.1	0.6	100
LEGACY SEEDS L-3048 VT2P	90	A500	1,2	38.0	167.4**	49.2	0.0	99	32.9	185.5	48.2	0.0	100	47.3	145.2	50.0	0.0	97	33.9	171.4**	49.3	0.0	101	33.9	171.4**	49.3	0.0	101
LG SEEDS LG5410VT2RIB	91	P500	1,2	44.1	161.4*	48.9	0.0	100	39.0	186.2	48.5	0.0	100	48.2	154.9*	48.0	0.0	99	45.1	143.2	50.2	0.0	102	45.1	143.2	50.2	0.0	102
LG SEEDS LG42C63VT2RIB	92	P500	1,2	37.1	154.2	48.1	0.0	95	31.6	187.7	48.0	0.0	96	41.8	146.9	47.3	0.0	94	37.8	127.9	49.1	0.0	94	37.8	127.9	49.1	0.0	94
LG SEEDS LG44C27VT2RIB	94	P500	1,2	41.4	162.8*	48.9	0.0	99	33.4	208.2**	48.4	0.0	100	46.1	157.0*	48.8	0.0	97	44.6	123.1	49.5	0.0	101	44.6	123.1	49.5	0.0	101
LOCAL SEED LC9278 SSXRIB	92	R500	1,2,3,4	43.0	146.3	49.2	0.2	97	34.9	185.6	49.2	0.6	99	48.9	132.7	49.1	0.0	98	45.3	120.6	49.3	0.0	95	45.3	120.6	49.3	0.0	95
LOCAL SEED ZS9598 5222EZ	95	R500	1,2,4,6	42.7	137.6	47.5	0.1	99	34.4	177.5	46.6	0.3	100	48.7	136.9	47.4	0.0	99	45.0	98.5	48.4	0.0	99	45.0	98.5	48.4	0.0	99
LOCAL SEED ZS9796 3220EZ	97	R500	1,2,4,6	41.6	154.5	49.0	0.0	99	34.7	177.5	48.1	0.0	98	48.7	140.7	48.5	0.0	98	41.5	145.2	50.4	0.0	100	41.5	145.2	50.4	0.0	100
M&W SEEDS 47T16	90	C250	1,2	39.1	155.4	49.2	0.3	96	31.5	203.8*	48.7	0.3	97	46.5	142.7	49.1	0.0	94	39.2	119.8	49.8	0.6	98	39.2	119.8	49.8	0.6	98
M&W SEEDS 46P76	97	C250	1,2	44.6	147.1	49.0	0.0	94	37.4	190.4	48.1	0.0	97	47.9	151.1	48.8	0.0	92	48.5	99.9	50.2	0.0	93	48.5	99.9	50.2	0.0	93
AVERAGE				40.4	155.4	48.6	0.1	98	33.7	192.6	48.1	0.2	99	46.2	147.6	48.3	0.0	96	41.5	126.0	49.5	0.2	98	41.5	126.0	49.5	0.2	98
HIGHEST				44.6	167.4	49.2	0.7	100	39.0	208.2	49.2	1.8	100	48.9	163.0	50.0	0.0	100	49.1	171.4	50.4	1.2	102	49.1	171.4	50.4	1.2	102
LOWEST				34.3	137.6	47.2	0.0	92	28.4	177.5	46.6	0.0	94	40.7	132.7	46.1	0.0	91	33.9	96.2	48.4	0.0	91	33.9	96.2	48.4	0.0	91
CV (%)				5.5	9.1	1.5	474.8	3	7.2	7.0	1.7	423.1	3	4.1	5.8	1.6	0.0	4	5.6	14.9	1.0	327.4	3	5.6	14.9	1.0	327.4	3
LSD (5%)				1.5	9.5	0.5	0.5	2	2.9	16.1	1.0	1.2	4	2.3	10.2	0.9	0.0	5	2.8	22.4	0.7	0.8	3	2.8	22.4	0.7	0.8	3

2 Year Averages 2019 - 2018		TRIAL AVERAGE										Iosco - Early					Osceola - Early					Presque Isle - Late				
BRAND / HYBRID	RM	TRT	TRAIT	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd	%H2O	BU/A	Twt	%SL	%Sd			
LG SEEDS LG5410VT2RIB	91	P500	1,2	30.8	187.1	50.6	0.3	99	29.4	201.3	50.9	0.6	99	32.1	172.9	50.3	0.0	99								

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

TABLE 5L.

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

ZONE 2 - 3

2019		Late - TRIAL AVERAGE						Ingham - Late						Montcalm - Late						Saginaw - Late									
BRAND / HYBRID	RM	TRT	TRAIT	%H2O	BUJA	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd		
AGRIGOLD A634-93	103	P500	Conv.	30.6	155.2	50.4	5.1	90	35.8	117.6	47.4	8.0	83	25.4	192.7	53.3	2.1	97											
AGRIGOLD A635-54	105	P500	Conv.	35.9	154.8	49.6	2.1	96	41.5	135.7	48.3	4.1	92	30.2	173.8	50.8	0.0	99											
BLUE RIVER 48G35	102	P250	Conv.	35.0	160.8	48.6	5.6	96	41.0	114.5	47.0	9.1	92	28.9	207.0	**	50.2	2.1	99										
BLUE RIVER 51T59	103	P250	Conv.	34.7	161.3	* 49.2	1.8	90	41.8	133.3	47.5	2.3	86	27.5	189.2	50.9	1.2	94											
FS InVision FS5296C	102	C250	Conv.	32.2	164.6	* 49.5	0.4	88	37.3	134.1	47.6	0.7	80	27.0	195.0	51.3	0.0	95											
FS InVision FS54A00	104	C250	Conv.	36.1	158.1	49.5	2.2	93	42.6	115.0	47.2	3.4	87	29.5	201.2	*	51.8	0.9	99										
FS InVision FS58G00	108	C250	Conv.	36.2	165.0	* 47.6	5.7	90	39.9	137.0	45.6	11.3	88	32.4	193.0	49.5	0.0	91											
KEY 908	108		Conv.	35.4	132.0	48.9	1.3	94	41.9	101.8	46.9	2.6	90	28.9	162.1	50.8	0.0	98											
LEGACY SEEDS L-5217	102	CM250	Conv.	32.4	168.0	* 49.8	0.9	87	38.1	139.4	* 48.1	1.8	83	26.7	196.6	*	51.5	0.0	91										
LEGACY SEEDS L-6047	105	CM250	Conv.	34.1	157.7	49.2	0.7	86	41.1	122.7	46.9	0.7	74	27.0	192.7	51.4	0.6	98											
LG SEEDS LG54C04	104	P500	Conv.	33.2	162.6	* 50.0	5.1	90	39.5	129.2	47.8	9.3	81	26.8	196.0	*	52.2	0.9	99										
LG SEEDS LG55Z5	105	P500	Conv.	36.0	144.7	49.8	0.5	91	41.8	121.3	48.3	0.3	82	30.2	168.0	51.2	0.6	100											
M&W SEEDS 45M43	103	C250	Conv.	33.7	150.0	49.9	6.0	88	40.2	125.3	48.0	11.6	84	27.2	174.6	51.7	0.3	92											
M&W SEEDS 45R67	103	C250	Conv.	32.1	166.0	* 49.4	0.2	86	36.5	140.8	* 47.6	0.3	80	27.7	191.1	51.1	0.0	91											
M&W SEEDS 44P85	105	C250	Conv.	33.4	156.2	49.1	2.6	92	38.8	134.3	47.4	4.2	89	27.9	178.1	50.7	0.9	94											
M&W SEEDS 44R33	106	C250	Conv.	32.2	168.4	* 49.3	6.7	88	37.4	148.7	* 48.0	13.4	83	26.9	188.1	50.5	0.0	93											
M&W SEEDS 44M87	108	C250	Conv.	38.9	142.5	49.8	2.3	86	45.1	104.3	48.3	4.5	79	32.6	180.7	51.3	0.0	93											
RENK RK642	102	P250	Conv.	34.0	155.9	49.3	9.2	88	41.0	132.3	47.4	18.1	82	27.0	179.5	51.2	0.3	94											
RENK RK724	104	P250	Conv.	36.4	169.6	* 49.1	4.6	92	42.4	136.9	46.9	7.7	89	30.3	202.2	*	51.2	1.5	94										
RUPP XRA02-20	102	P250	Conv.	33.9	154.1	49.9	0.6	93	40.7	123.8	48.2	0.3	86	27.1	184.4	51.6	0.9	100											
VIKING O.46-02P	102	C250	Conv.	33.0	170.9	** 49.6	2.9	93	37.9	154.6	** 48.2	5.1	88	28.0	187.1	50.9	0.6	97											
VIKING O.55-02UP	102	C250	Conv.	35.7	156.2	50.2	3.4	89	42.2	116.6	48.2	6.5	81	29.2	195.8	*	52.1	0.3	97										
VIKING O.51-04P	104	C250	Conv.	35.6	160.8	49.0	3.0	92	41.9	124.5	47.1	5.7	85	29.2	197.0	*	50.9	0.3	98										
VIKING O.18-06P	106	C250	Conv.	35.6	169.1	* 51.6	2.2	89	42.5	134.2	49.9	4.4	81	28.7	204.0	*	53.3	0.0	96										
WELLMAN W2902	102		Conv.	32.9	162.4	* 49.3	0.5	87	38.8	133.7	47.2	0.7	80	26.9	191.0	51.4	0.3	94											
WELLMAN W2906	106		Conv.	33.6	167.6	* 49.4	7.2	80	40.3	135.9	47.1	14.3	72	26.8	199.2	*	51.7	0.0	88										
WELLMAN W2910	110		Conv.	38.9	156.5	51.0	4.2	91	45.1	122.4	50.1	7.2	86	32.7	190.6	51.9	1.2	96											
AVERAGE				34.5	158.9	49.6	3.2	90	40.5	128.5	47.7	5.8	84	28.5	189.3	51.3	0.6	95											
HIGHEST				38.9	170.9	51.6	9.2	96	45.1	154.6	50.1	18.1	92	32.7	207.0	53.3	2.1	100											
LOWEST				30.6	132.0	47.6	0.2	80	35.8	101.8	45.6	0.3	72	25.4	162.1	49.5	0.0	88											
CV (%)				5.4	7.4	1.5	216.3	8	5.6	10.5	1.6	166.4	12	4.7	5.3	1.3	198.0	3											
LSD (5%)				1.5	9.7	0.6	5.7	6	2.7	15.9	0.9	11.4	12	1.6	11.7	0.8	1.3	3											
2 Year Averages 2019 - 2018																													
BRAND / HYBRID	RM	TRT	TRAIT	%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	%H2O	BUJA	Twt	%SL	%Sd	
BLUE RIVER 48G35	102	P250	Conv.	28.9	170.5	49.7	4.5	92	30.7	148.5	49.3	5.0	87	27.1	192.5	*	50.0	3.9	96										
BLUE RIVER 51T59	103	P250	Conv.	28.0	182.2	* 50.6	2.0	93	30.4	171.3	* 50.2	1.6	91	25.5	193.0	*	50.9	2.4	94										
M&W SEEDS 45M43	103	C250	Conv.	27.9	171.2	51.3	4.1	92	30.6	157.8	* 50.6	6.5	90	25.1	184.6	51.9	1.7	94											
M&W SEEDS 44P85	105	C250	Conv.	27.1	189.5	** 50.7	2.6	93	29.0	176.5	** 50.3	2.3	90	25.2	202.5	**	51.0	2.9	95										
M&W SEEDS 44M87	108	C250	Conv.	32.2	181.0	50.8	2.4	89	34.1	167.0	* 50.4	2.8	83	30.2	194.9	*	51.1	1.9	94										
RUPP XRA02-20	102	P250	Conv.	27.6	176.8	51.3	1.5	95	30.3	161.9	* 51.0	0.2	91	24.9	191.6	*	51.6	2.8	98										
AVERAGE				28.6	178.5	50.7	2.9	92	30.8	163.8	50.3	3.1	88	26.3	193.2	51.1	2.6	95											
HIGHEST				32.2	189.5	51.3	4.5	95	34.1	176.5	51.0	6.5	91	30.2	202.5	51.9	3.9	98											
LOWEST				27.1	170.5	49.7	1.5	89	29.0	148.5	49.3	0.2	83	24.9	184.6	50.0	1.7	94											
CV (%)				4.7	8.4	1.7	205.1	6	5.6	19.0	1.8	144.4	12	4.6	7.3	1.5	700.5	3											
LSD (5%)				0.9	8.3	0.5	3.9	3	1.7	22.5	0.7	5.9	9	1.1	11.7	0.6	7.2	2											

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

HYBRID INDEX FOR GRAIN TRIALS

ZONE 1 Tables 1E/1L Branch Cass Wastenaw Trial Average		ZONE 2 Tables 2E/2L Allegan Ingham Saginaw Trial Average		ZONE 3 Tables 3E/3L Huron Mason Montcalm Trial Average		ZONE 4 Table 4E/4L Iosco Osceola Presque Isle Trial Average		CONVENTIONAL TRIAL Tables 5E/5L Ingham - Zone 2 Montcalm - Zone 3 Saginaw - Zone 2 Trial Average	
BRAND / HYBRID	RM TABLE	BRAND / HYBRID	RM TABLE	BRAND / HYBRID	RM TABLE	BRAND / HYBRID	RM TABLE	BRAND / HYBRID	RM TABLE
AG ARMOUR		DYNAGRO		INTEGRA					
AA9206	92 4L	D37VC64		4782					
AA9509	95 2E,3E	D39DC43		5081					97 2E,3E
AA9608	96 2E,3E	D39VC40		5280					100 2E,3L
AA10102	101 2E	D44VC40							102 2L,3L
AA10252	102 2L,3L	D47SS29							
		D49VC70							
AGRIGOLD		FS InVision		KEY					
A628-16VT2RIB	98 2E	FS35SV1 RIB		995QR					95 1E
A629-22	99 5E	FS37TV1 RIB	85 4E	908					108 5L
A629-22STXRIB	99 2E	FS41TV1 RIB	87 4E						
A632-07VT2PRO	102 2L	FS45S00	91 4L						
A634-93	103 5L	FS45SV1 RIB	95 5E						
A635-54	105 5L	FS47TV1 RIB	95 3E,4L						
A635-54VT2RIB	105 2L	FS5098X RIB	97 3E						
A636-11VT2PRO	106 1E	FS50A00	100 2E,3L						
A637-55VT2RIB	107 1E	FS51QX1 RIB	100 5E						
A638-74VT2RIB	108 1L	FS5296C	101 2E,3L						
A639-40VT2RIB	109 1L	FS53ZX1 RIB	102 5L						
		FS54A00	103 2L,3L						
BLUE RIVER			104 5L						
26B78	88 5E	FS5594X RIB	104 2L						
27B16	88 5E	FS55RL1 EZR	105 1E,2L						
33A16	92 5E	FS57ZX1 RIB	105 1E,2L						
38G54	96 5E	FS59VL1 EZR	107 1E,2L						
48G35	102 5L	FS58G00	109 1L						
51T59	103 5L	FS58RL1 EZR	108 5L						
		FS60UX1 RIB	108 1L						
		FS6194V RIB	110 1L						
		FS6299L2 EZR	111 1L						
		FS62ZX1 RIB	112 1L						
DAIRYLAND SEED		GOLDEN HARVEST		LEGEND					
DS-3030AM	90 4L	G91V51-3110A	91 3E	47J086 VIP3220 EZREF	86 4E				
DS-3550Q	95 3E	G90Y04-3220A	92 3E	9886 VT2PRIB	86 4E				
DS-3519AM	95 2E,3E	G95D32-3220	95 2E,3E	47J988 3120 EZREF	88 4E				
DS-3750AM	97 2E,3E	G97N86-3220	97 2E	9993 GENSSRIB	93 3E				
DS-3715AM	97 2E,3E	G00H12-3010	100 2E	9895 VT2PRIB	95 2E,3E				
DS-3810Q	98 3L	G02K39-3120	102 2L	9995 VIP3220 EZREF	95 3E				
DS-4018AM	100 2E,3L	G03C84-3120	103 2L	9997 GENSSRIB	97 2E				
DS-4310AM	103 2L,3L	G03R40-3110	103 2L	9999 VT2PRIB	99 2E				
DS-4318AM	103 1E,2L	G04S19-3122	104 2L	9804 GENSSRIB	104 2L				
DS-4329AM	103 1E,2L	G06Q68-3220	106 2L	9905 VIP3220 EZREF	105 2L				
DS-4440AM	104 1E,2L,3L	G07F23-3111	107 1E	9806 GENSSRIB	106 2L				
DS-7004RA	104 1E,2L	G08M20-3120	108 1L						
DS-4580Q	105 1E,2L	G08R52-3220	108 1L						
DS-4840AM	108 1L	G09A86-3330	109 1L						
DS-4910AML	110 1L	G09Y24-3220A	109 1L						
DS-5018Q	110 1L								
DS-5319Q	113 1L								

BRAND / HYBRID	RM	TABLE	BRAND / HYBRID	RM	TABLE	BRAND / HYBRID	RM	TABLE
LG SEEDS			RENK			VIKING		
LG5370VT2RIB	84	4E	RK433VT2P	92	3E	O.84-95UP	95	5E
LG38C18VT2RIB	88	4E	RK561DGVT2P	95	3E	O.98-98P	98	5E
LG5410VT2RIB	91	3E,4L	RK568	95	5E	O.85-00P	100	5E
LG42C63VT2RIB	92	3E,4L	RK717SSTX	95	2E	O.46-02P	102	5L
LG44C27VT2RIB	94	2E,3E,4L	RK593VT2P	96	3E	O.55-02UP	102	5L
LG5465VT2RIB	97	2E,3E	9S-104-3010	97	3E	O.51-04P	104	5L
LG5470	98	5E	RK587VT2P	97	3E	O.18-06P	106	5L
LG5505	100	5E	RK579DGVT2P	98	3L			
LG5505VT2RIB	100	1E,2E,3L	RK710DGVT2P	98	2E	WELLMAN		
LG51C48VT2PRO	101	1E,2E,3L	RK621VT2P	102	2L	W2902	102	5L
LG54C04	104	5L	RK626SSTX	102	2L	W2903DP	103	1E
LG5525	105	5L	RK642	102	5L	W2906	106	5L
LG5525VT2RIB	105	1E,2L	RK642VT2P	103	2L	W2807DP	107	1E
LG57C33STX	107	1E,2L	RK724	104	5L	W2910	110	5L
LG58C77VT2RIB	108	1L,2L	RK765VT2P	108	1L	W2911DP	110	1L
LG59C46VT2RIB	109	1L	RK807SSTX	111	1L	W2012DP	112	1L
LG59C66VT2RIB	109	1L	RK842SSTX	112	1L			
LG5590VT2RIB	110	1L				WYCKOFF		
LG60C33VT2PRO	110	1L	RUPP			2175 SS	97	2E
			XRJ94-91	94	2E,3E	2187 VT2P	97	2E
			XRD96-13	96	2E,3E	2212 VT2P	100	1E
			XRA97-55	97	5E	2263 SS	101	2E
			XRD97-95	97	2E,3E	2250 VT2P	102	1E
			XRJ98-52	98	2E,3L	2335 SS	103	1E
			XRD01-90	101	1E,2E,3L	2390 VT2P	103	1E
			XRA02-20	102	5L	2400 SS	105	1E
			XRD03-07	103	1E	2433 SS	105	1E
			XRD06-53	106	1E,2L	2500 SS	106	1E
			XRD07-72	107	1E,2L	2585 VT2P	107	1E
			XRD09-42	109	1L			
			XRD09-63	109	1L			
			XRD10-16	110	1L			
			XRD12-49	112	1L			
			SEEDWAY					
			SW3569 5222	93	3E			
			SW3768 GENSS	95	3E			
			SW4000 GENSS	100	3L			
			SW4010 GENSS	100	3L			
			SPECIALTY					
			26A236	96	2E			
			27D728	97	2E			
			28D249	98	2E			
			32A886	102	1E,2L			
			34A007	104	1E,2L			
			36A537	106	1E,2L			
M&W SEEDS								
48R11	87	3E,4E						
47T16	90	2E,3E,4L						
47J64	94	5E						
47R22	94	5E						
46P76	97	2E,3E,4L						
46T29	99	2E						
45P33	100	5E						
45T56	100	2E						
45M43	103	5L						
45R67	103	5L						
45R69	103	1E,2L						
44P85	105	5L						
44P86	105	1E						
44R33	106	5L						
44D81	108	1L						
44M87	108	5L						
44R77	108	1L						

~ Denotes hybrids that were entered into the Grain and Silage Trials.

TABLE B.

AGRONOMIC TABLE FOR GRAIN TRIAL LOCATIONS

COUNTY		PLANTING DATES	HARVEST DATES	PREVIOUS CROP	100 % STAND	AVERAGE STAND	FERTILIZER N - P - K
Zone 1	WASHTENAW	DROPPED	2019	Extended rain	events,	too wet	to plant
	BRANCH (Irrigated)	May 16	Nov 3	Soybean	33,264	31,268	218-10-3
	CASS (Irrigated)	May 16	Dec 3	Soybeans	33,264	32,599	245-10-3
Zone 2	ALLEGAN	June 3	Nov 26 & 29	Corn with forage ryes	33,264	32,931	161-10-3 plus manure
	INGHAM	June 23	Dec 6	Wheat	33,264	31,601	161-10-3
	INGHAM CONV.	June 23	Dec 6	Wheat	33,264	28,607	161-10-3
	SAGINAW & CONV.	DROPPED	2019	Extended rain	Events,	too wet	to plant
Zone 3	HURON	June 9	Nov 25	Corn Silage	33,264	31,933	161-10-3 plus manure
	MONTCALM & CONV.	May 15	Nov 10	Soybeans	33,264	32,599	161-10-3
	MASON (Irrigated)	May 14	Nov 5	Carrots	33,264	32,931	161-10-3 plus manure
Zone 4	IOSCO	June 2	Nov 18	Corn	33,264	32,765	161-10-3 plus manure
	OSCEOLA	May 31	Nov 24	Black beans	33,264	31,601	161-10-3 plus manure
	PRESQUE ISLE	May 22	Nov 18	Corn	33,264	32,100	161-10-3 plus manure

COUNTY		SOIL TYPE	SOIL TEST ¹	FARM COOPERATOR	LOCATION
Zone 1	WASHTENAW	DROPPED		Talladay Farms Matthew Talladay	Milan
	BRANCH	Fox sandy loam, Oshtemo sandy loam	pH 6.9, P 48 K 122	Oak Prairie Brian Nunemaker	Coldwater
	CASS	Kalamazoo loam	pH 6.9, P 38 K 155	Brossman's Farm George Brossman	Vandalia
Zone 2	ALLEGAN	Glendora Loamy Sand	pH 6.1, P 172 K 194	Scenic View Dairy Bryan Geerlings	Fennville
	INGHAM	Conover loam	pH 6.3, P 69 K 134	Plant, Soil & Microbial Sciences Research Facility, MSU	East Lansing
	INGHAM CONV.	Conover loam	pH 6.3, P 69, K 134	Plant, Soil & Microbial Sciences Research Facility, MSU	East Lansing
	SAGINAW & CONV.	DROPPED		Fred Gross Farms Peggy Gross & Dick Birchmeier	New Lothrop
Zone 3	HURON	Kilmanagh loam	pH 7.5, P 61 K 118	Wil-Le Farms Ron, Ed and Chris McCrea	Bad Axe
	MONTCALM	McBride and Isabella sandy loams 100%	pH 5.8, P 88 K 135	Karnatz Farms Scott Karnatz	Greenville
	MASON	Wixom-Capac complex, Fern-Marlette Complex	pH 6.7, P 53 K 106	Robert Oshe Jacob Zwagerman	Scottville
Zone 4	IOSCO	Kawkawlin sandy loam	pH 7.0, P 65 K 144	Double B Dairy Jeremy, Tim and Roger Beebe	Hale
	OSCEOLA	Onkama loam, Saginaw Lobe	pH 6.6, P 42 K 103	Pine Crest Dairy Farm John Bode	Cadillac
	PRESQUE ISLE	Omena fine sandy loam	pH 7.5, P 83 K 285	Ponik Farms Paul Ponik	Posen

¹-P and K reported in m3-ppm

2019

SILAGE PERFORMANCE TRIALS

Introduction

The silage index (pg. 30) contains a list of all hybrids planted in the 2019 silage trials.

County results are reported in the following tables:

Tables 6E/6L Zone 1 - Branch, Lenawee, and Wood County, OH (Lenawee County dropped)

Tables 7E/7L Zone 2/3 – Ottawa, Huron (Zone 3), and Ingham (Ingham County dropped)

Tables 8E/8L Zone 4 – Iosco, Osceola, and Presque Isle

The map of Michigan (pg. 28) 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. 30).

Zones 1 and zone 2/3 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 County, OH location is managed in cooperation with The Ohio State University. Planting and in-season 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 Master™ 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 matter (%DM). Dry tons per acre (DT/A) is calculated 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 quality traits are:

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 the majority of the energy in corn silage. High starch content is desirable.

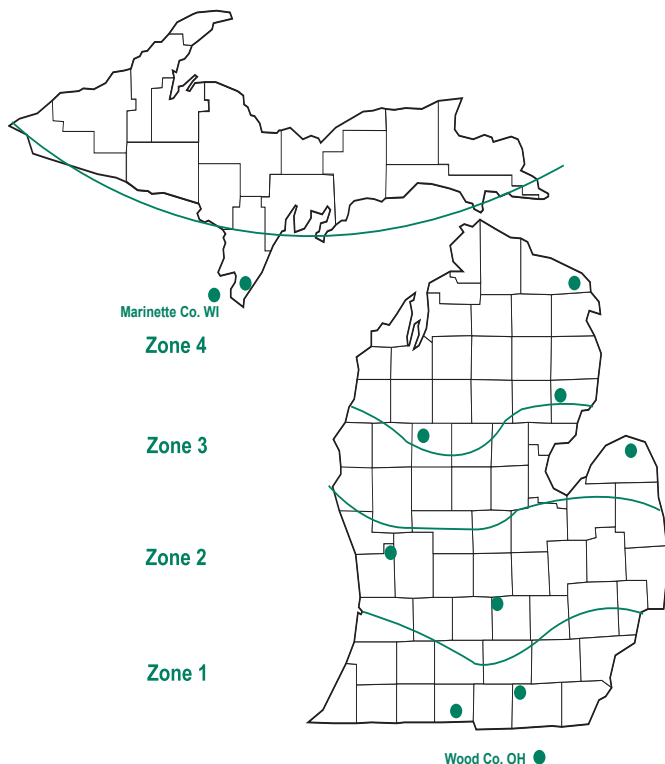
Silage quality traits are reported on a dry matter basis (100 percent DM). Quality traits in these tables are intended for use in hybrid selection only. Analysis for the balancing of feed rations should be analyzed from hybrids grown on each individual farm.

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

2019 Silage Trial Locations



2019 UPPER PENINSULA CORN PERFORMANCE TRIALS

*M.P. Singh, J. Lauer, J. DeDecker, C. Kapp,
and W. D. Widdicombe*

A collaboration was successfully established in 2018 between Michigan Corn Performance Trials (MCPT), Wisconsin Corn Performance Trials (WCPT), and the Upper Peninsula (UP) team to conduct corn hybrid evaluation trials on a grower farm (Charlie Meintz, Pleasant View Dairy Farm) in Menominee County with entries from WCPT's Marinette County, WI location. This collaboration was developed as part of efforts to improve relevancy of MCPT trials in the UP, and was supported for the second year (2019) by funding from MSU AgBioResearch and MSU Extension.

Methods and data presented for the Menominee location is similar to the grain and silage performance trials presented in this bulletin. Previous crop in the field (sandy loam soil) was corn. Planting was accomplished using Winterstieger Plot King Planter on June 4 at a target rate of 34,000 seeds/acre. Due to planter malfunction, we were unable to finish planting grain hybrids and no data is available on their performance from Menominee County. Corn silage plots were harvested on October 17. For details on performance of grain and silage hybrids at WCPT location in Marinette County, please refer to University of Wisconsin bulletin A3653 (available at <http://corn.agronomy.wisc.edu/HT/2019/2019Text.aspx>).

-Data Continued On Page 29.

UPPER PENINSULA SILAGE TRIAL

2019		Upper Peninsula - Silage												
BRAND / HYBRID	RM	YIELD				% QUALITY						MILK 2006		
		%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/T	MK/A	
Channel 185-30VT2PRIB	85	77.4	16.4	12.2	**	92	82.4	19.6	40.6	56.9	6.9	36.9	3349	39019
Channel 192-98STXRIB	92	42.7	21.8	9.3		93	82.7	20.6	40.3	57.2	7.2	33.8	3367	31367
Dairyland HiDF3197RA	97	44.1	24.7	11.2		94	81.4	20.4	38.9	56.3	7.1	36.0	3299	36892
Dairyland HiDF-3397RA	97	38.5	25.8	9.9		96	78.9	27.1	49.4	57.3	5.9	20.9	2872	31468
Dairyland DS-3519AM	96	45.5	21.0	9.5		87	81.4	25.7	46.8	56.4	6.7	28.2	3230	30591
Dairyland DS-3715AM	97	51.2	22.3	11.4	*	97	80.8	23.0	42.3	54.7	6.5	34.3	3243	36828
Dekalb DKC32-12RIB	82	54.0	16.6	9.0		91	83.2	20.1	39.4	57.5	7.2	38.0	3403	30614
Dekalb DKC37-50RIB	87	50.1	18.4	9.1		91	82.3	21.4	41.1	56.7	7.2	32.8	3281	28369
Federal Hybrids 4160VT2PRIB	91	42.3	21.4	9.2		91	82.4	21.4	41.7	57.8	6.5	33.2	3338	30690
Federal Hybrids 4240VT2PRIB	92	38.7	22.4	8.9		88	81.7	22.3	43.6	58.0	6.4	29.3	3267	29171
InVision FS 35SV1 RIB	85	50.4	16.5	8.2		91	82.5	21.4	40.6	57.0	7.2	36.2	3352	29466
InVision FS 37TV1 RIB	87	53.4	16.9	9.4		91	83.8	17.8	38.2	57.7	7.0	36.2	3449	32379
InVision FS 41TV1 RIB	91	38.9	19.8	8.3		89	81.4	23.7	45.4	58.9	6.6	27.5	3217	26700
InVision FS 45SV1 RIB	95	59.3	18.6	11.1		94	81.4	22.8	42.7	56.5	6.8	30.1	3185	37053
Jung 36DP310	86	59.5	16.1	9.0		92	85.3	18.0	35.5	58.6	7.2	42.9	3555	31836
Jung 46SS428	96	40.2	23.7	9.4		93	84.6	19.7	39.8	61.3	6.6	34.5	3470	32703
Jung 4D178RIB	84	39.7	23.5	9.7		87	81.4	20.2	40.4	59.7	6.0	34.9	3293	34267
Jung 7S378RIB	94	35.5	25.1	8.9		90	80.6	21.6	41.6	56.8	6.8	31.4	3237	28778
Latham 4242VT2PRO	92	42.5	23.6	10.0		96	81.5	22.3	43.0	56.8	6.5	27.9	3149	31487
Latham 4375VT2PRO	93	39.7	21.7	8.8		93	80.7	21.9	42.7	58.7	6.7	30.9	3234	28380
Latham 4517VT2PRO	95	56.1	19.7	10.4		94	77.9	26.7	48.2	54.2	6.3	30.2	3030	31625
Legacy Seeds L3517VT2P(RIB)	95	41.1	23.5	9.8		93	81.9	22.6	43.5	58.4	6.5	29.3	3292	32391
Legacy Seeds L3537-3220	95	40.1	21.8	8.8		87	79.6	24.9	46.6	56.1	6.6	26.5	3134	27461
LG SEEDS LG38C18VT2RIB	88	43.5	21.3	9.1		94	84.0	19.0	38.3	58.3	6.9	38.3	3459	33523
LG SEEDS LG42C63VT2RIB	92	40.6	21.1	8.6		98	82.4	20.1	39.3	58.4	6.5	35.3	3358	28788
LG SEEDS LG44C27VT2RIB	94	45.4	23.0	10.4		93	81.4	22.4	45.1	58.8	6.5	28.5	3217	33518
LG SEEDS LG5410VT2RIB	91	43.8	24.9	10.8		96	82.4	21.8	42.4	58.0	6.4	30.8	3318	35717
LG SEEDS LG5465VT2RIB	97	32.0	23.7	7.8		91	79.5	27.2	46.8	56.2	6.6	20.1	2710	21161
Masters Choice MCT2552-3110	75	86.5	13.1	11.2		92	84.8	17.0	36.9	58.8	7.5	42.7	3514	39248
Masters Choice MCT3393-3000GT	83	63.8	17.8	10.7		94	83.0	17.9	36.1	58.0	7.1	42.6	3417	36703
Masters Choice MCT3891GT	88	58.3	15.2	8.9		82	83.7	21.6	39.5	58.7	7.0	36.4	3427	28903
Masters Choice MCT4572-3010	95	40.1	22.6	9.1		93	79.6	25.5	47.4	56.9	6.1	27.3	3121	28315
NK Brand NK8519-3220-EZ1	85	63.1	19.3	12.1	*	92	82.1	19.9	40.6	56.0	7.4	37.9	3327	40108
NK Brand NK8881-3120A-EZ1	88	65.4	18.9	12.2	**	91	82.8	17.7	35.9	55.8	7.0	36.8	3314	40481
NK Brand NK9175-3110A	91	62.2	19.7	11.9	*	91	84.0	19.1	38.0	58.0	7.2	39.2	3458	39304
NK Brand NK9227-3220A-EZ1	92	43.7	24.7	10.5		97	81.0	22.9	42.4	55.3	7.1	32.3	3253	34245
Prairie Hybrids 418	97	46.7	21.5	10.0		94	80.6	21.5	41.5	57.6	6.8	32.6	3234	30022
RENK RK433VT2P	92	47.6	21.1	10.0		91	80.8	23.1	44.4	56.8	6.2	29.2	3224	30215
RENK RK561DGVT2P	95	34.6	21.7	7.5		90	82.8	22.3	43.5	60.4	6.2	29.1	3309	26333
RENK RK579DGVT2P	98	39.5	26.4	10.4		93	81.4	23.7	44.9	58.7	6.3	27.5	3230	33473
RENK RK593VT2P	96	33.8	29.3	9.8		96	80.4	23.0	44.3	61.5	6.0	25.3	3098	31170
Viking 42-92	92	53.3	21.5	11.2		89	83.1	20.4	40.8	58.6	6.7	35.1	3384	37988
VIKING 71-90GS	90	42.4	18.8	7.7		96	83.4	21.1	41.5	60.0	6.8	29.1	3250	25084
Viking O.82-95GS	95	46.4	21.4	10.0		87	80.5	20.6	39.9	59.5	7.1	33.7	3416	34950
AVERAGE		48.1	21.1	9.8		92	81.9	21.7	41.9	57.7	6.7	32.5	3279	32245
HIGHEST		86.5	29.3	12.2		98	85.3	27.2	49.4	61.5	7.5	42.9	3555	40481
LOWEST		32.0	13.1	7.5		82	77.9	17.0	35.5	54.2	5.9	20.1	2710	21161
CV (%)		6.6	6.6	6.2		5	2.7	5.9	5.8	3.1	5.5	6.6	4	5
LSD (5%)		4.3	1.9	0.8		6	3.0	1.7	3.3	2.4	0.5	2.9	167	2224

2 Year Averages 2019 - 2018		Upper Peninsula - Silage												
BRAND / HYBRID	RM	YIELD				% QUALITY						MILK 2006		
		%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/T	MK/A	
Channel 192-98STXRIB	92	38.7	22.8	8.8		89	82.5	18.5	38.6	54.6	7.4	36.6	3345	29441
Dairyland HiDF3197RA	97	40.3	25.0	10.2	**	91	82.7	17.7	36.4	54.5	7.3	39.2	3378	34490
Federal Hybrids 4160VT2PRIB	91	41.5	21.0	8.8		88	82.5	19.7	38.2	53.7	6.7	37.8	3351	29362
InVision FS 37TV1 RIB	87	48.9	16.9	8.6		88	83.9	16.8	35.1	53.7	7.1	41.5	3457	29772
InVision FS 41TV1 RIB	91	36.2	20.3	7.6		87	82.8	20.0	39.5	56.0	7.1	35.6	3346	25314
InVision FS 45SV1 RIB	95	49.8	19.5	9.7	*	92	82.0	20.4	39.0	53.4	7.1	35.9	3271	32215
Jung 46SS428	96	38.1	25.7	9.7	*	91	84.7	17.9	36.0	57.1	7.1	38.8	3496	34014
Jung 4D178RIB	84	41.0	21.9	9.0		88	82.6	18.5	36.7	55.3	6.6	39.2	3373	31475
Jung 7S378RIB	94	35.7	25.2	9.0		88	81.9	19.5	38.2	54.2	7.1	36.4	3319	29816
Latham 4242VT2PRO	92	40.0	23.5	9.4		91	82.1	20.1	39.2	54.0	6.6	34.6	3260	30409
LG SEEDS LG5410VT2RIB	91	39.2	24.1	9.4		91	82.6	20.1	39.2	55.3	6.9	35.4	3344	31494
Prairie Hybrids 418	97	44.1	21.9	9.6	*	94	82.8	18.6	36.7	55.4	6.9	39.5	3385	31343
Viking 42-92	92	44.5	22.1	9.7	*	89	82.7	19.7	38.7	55.0	6.9	37.7	3357	32512
VIKING 71-90GS	90	40.0	20.6	8.3		90	83.3	18.9	37.2	54.4	7.0	36.9	3331	27642
AVERAGE		41.3	22.2	9.1		90	82.8	19.0	37.8	54.8	7.0	37.5	3358	30664
HIGHEST		49.8	25.7	10.2		94	84.7	20.4	39.5	57.1	7.4	41.5	3496	34490
LOWEST		35.7	16.9	7.6		87	81.9	16.8	35.1	53.4	6.6	34.6	3260	25314
CV (%)		6.1	7.3	7.3		5	2.7	9.1	7.7	3.2	6.1	11.1	4	7
LSD (5%)		2.7	1.5	0.7		4	2.1	1.8	3.0	1.7	0.4	3.7	131	2174

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

SILAGE HYBRID INDEX

ZONE 1 - Tables 6E/6L

Branch
Lenawee
Wood (Ohio)
Trial Average

ZONE 2/3- Tables 7E/7L

Huron - Zone 3
Ingham
Ottawa
Trial Average

ZONE 4 - Tables 8E/8L

Iosco
Osceola
Presque Isle
Trial Average

BRAND / HYBRID	RM TABLE	BRAND / HYBRID	RM TABLE	BRAND / HYBRID	RM TABLE
AG ARMOUR		INTEGRA		MASTERS CHOICE	
AA10810	108 7L	4550 STP	95 7E	MCT-5454	104 6E,7E,8L
		4810 STP	98 7E	MCT-5663	106 6E,7L
AGRIGOLD		5209 STP	102 7E	MC-5790	107 7L
A628-16VT2PRO	98 6E	5500 STP	105 6E,7L	MCT-6153	111 6L
A636-43VT2PRO	106 6E	6010 STP	110 6L	MCT-6363	113 6L
A637-55VT2RIB	107 6E	6498 STP	114 6L		
				NK Brand	
DAIRYLAND SEED		KingFisher		NK8920-3120	89 7E
HiDF-3197RA	97 7E,8E	34C30	84 8E	NK9175-3110A	91 7E
HiDF-3397RA	97 7E,8E	43C40	93 8E	NK9227-3220A	92 7E
DS-3715AM	97 7E,8E	49C60	99 8L	NK9535-3220	95 7E
HiDF-3099RA	99 7E,8L	57T81	107 6E,7L	NK9610-3010	96 6E,7E
HiDF-3802Q	102 6E,7E			NK9738-3220	97 6E,7E
DS-4318AMXT	104 7E,8L	LEGACY SEEDS		NK9852-3120	98 6E,7E
HiDF-3407RA	107 6E,7L	L-5217 VT2P	102 7E	NK9930-3010	99 6E,7E
HiDF-3308AM	108 6E,7L,	L-5350 3122	104 7E	NK0199-3122A	101 6E,7E
HiDF-3808RA	108 6E	L-5438 3010	104 7E	NK0243-3120	102 6E
DS-4816AMXT	108 6E,7L	L-6047 SSX	105 7L	NK0440-3122	104 6E
DS-5018Q	110 6L,7L			NK0886-3120	108 6E
HiDF-3211RA	111 6L	LG SEEDS		NK0962-3220A	109 6E
DS-5329Q	114 6L	LG5410VT2RIB	91 8E		
		LG42C63VT2RIB	92 8E	RENK	
DYNAGRO		LG44C27VT2RIB	94 8E	RK717SSTX	95 7E
D43SS81	103 7E	LG5465VT2RIB	97 8E	9S-104-3010	97 7E
D47SS29	107 7L	LG5494VT2RIB	99 7E	RK710DGV2P	98 7E
D49SS70	109 6E,7L	LG5505VT2RIB	100 7E	RK724RR	98 7E
D52SS63	112 6L	LG51C48VT2PRO	101 7E,8L	RK771	100 7E
		LG54C04	104 8L	9S-109-3110	102 7E
FS InVision		LG5525VT2RIB	105 7L,	RK937VT2P	107 6E
FS55RL1 EZR	105 6E	LG58C77VT2RIB	108 6E,7L	RK945DGV2P	108 6E
FS58RL1 EZR	108 6E	LG59C66VT2RIB	109 6E,7L		
FS60UX1 RIB	110 6L	LG5590VT2RIB	110 6L	SEEDWAY	
FS62RL1 EZR	112 6L	LG60C33VT2PRO	110 6L	SW4000 GENSS	100 6E
FS62ZX1 RIB	112 6L	LG62C02VT2RIB	112 6L	SW6320	108 6E
FS63ZX1 RIB	113 6L			SW6540 VT2PRIB	108 6E
FS64SX1 RIB	114 6L	LOCAL SEED		SW6630 GENSS	110 6L
		ZS9598 5222EZ	95 8E		
GOLDEN HARVEST		ZS9796 3220EZ	97 8E	SPECIALTY	
G90Y04-3110A	92 8E	LC9888 VT2PRIB	98 8L	37A593	107 6E
G95D32-3220	95 8E	LC0488 SSXRIB	104 7E	38A836	108 6E
G03R40-3110	103 7E	LC0657 SSXRIB	106 6E,7L,8L	42A843	112 6L
G04S19-3122	104 7E	LC0877 VT2PRIB	108 6E,7L,8L		
G08M20-3120	108 6E,7L	ZS1098 330EZ	110 6L,7L,8L	VIKING	
G09A86-3110	109 6E,7L	LC1349 SSXRIB	113 6L,7L	O.82-95P	95 7E
G09Y24-3220A	109 6E,7L	LC1586 TC	115 6L	O.69-01P	101 7E
G10T63-3120	110 6L,7L			O.51-04PGS	104 6E,7E
G12J11-3220A	112 6L,7L			O.48-08PGS	108 6E,7L
G14N11-3110	114 6L			O.74-10PGS	110 6L,7L
G16K01-3111	116 6L			53-12PGS	112 6L
				O.82-14PGS	114 6L

~ Denotes hybrids that were entered into the Grain and Silage Trials.

TABLE C.

AGRONOMIC TABLE FOR SILAGE TRIAL LOCATIONS

	COUNTY	PLANTING DATES	HARVEST DATES	PREVIOUS CROP	100 % STAND	AVERAGE STAND	FERTILIZER N - P - K
Zone 1	BRANCH	May 16	Sept 17	Soybean	33,264	31,102	218-10-3
	LENAWEE	DROPPED	2019	Extended rain	Events,	to wet	to plant
	WOOD (OHIO)	June 12	Oct 7	Soybeans	33,264	27,110	222-26-0
Zone 2/3	OTTAWA	June 27	Oct 24	Corn/rye cover	33,264	32,599	161-10-3 plus manure
	INGHAM	June 7	Oct 1 & 9	Soybeans	33,264	32,099	161-10-3
	HURON	June 9	Oct 10	Corn Silage	33,264	32,100	161-10-3 plus manure
Zone 4	IOSCO	June 2	Oct 8	Corn	33,264	32,432	161-10-3 plus manure
	OSCEOLA	May 31	Oct 18	Black beans	33,264	31,434	161-10-3 plus manure
	PRESQUE ISLE	May 22	Oct 8	Corn	33,264	32,100	161-10-3 plus manure

	COUNTY	SOIL TYPE	SOIL TEST ¹	FARM COOPERATOR	LOCATION
Zone 1	BRANCH	Fox sandy loam, Oshtemo sandy loam	pH 6.9, P 48 K 122	Oak Prairie Brian Nunemaker	Coldwater
	LENAWEE	DROPPED		Baker-Ladd Farms Blaine Baker	Clayton
	WOOD (OHIO)	Hoytville clay loam	pH 6.9 , P 63 K 164	OARDC Matt Davis & Richard Minyo	Hoytville, Ohio
Zone 2/3	OTTAWA	Richter sandy loam	pH 6.3, P 125 K 152	J & J Dairy Tim, Dave and Daniel Van Dyke	Marne
	INGHAM	Conover loam	pH 6.1, P 49 K 104	Plant, Soil & Microbial Sciences Research Facility, MSU	East Lansing
	HURON	Kilmanagh loam	pH 7.5, P 61 K 118	Wil-Le Farms Ron, Ed and Chris McCrea	Bad Axe
Zone 4	IOSCO	Kawkawlin sandy	pH 7.0, P 65 K 144	Double B Dairy Jeremy, Tim and Roger Beebe	Hale
	OSCEOLA	Omena fine sandy loam	pH 6.6, P 42 K 103	Pine Crest Dairy Farm John Bode	Cadillac
	PRESQUE ISLE	Onekama loam, Saginaw Lobe	pH 6.6, P 42 K 103	Ponik Farms Paul Ponik	Posen

¹-P and K reported in m3-ppm

TABLE 6E.

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

ZONE 1

BRAND /HYBRID	RM	TRT	TRAIT	2019										Branch - Early																					
				Early - TRIAL AVERAGE					MILK 2006					YIELD					% QUALITY					MILK 2006											
				%DM	GT/A	DT/A	%STD	%ADP	ADF	NDF	NDFD	CP	STR	MK/A	MK/A	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/A	MK/A	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD
AGRIGOLD A628-16VT2PRO	98	P500	1,2	47.7	22.5	10.7	88	83.5	16.5	32.8	55.0	7.6	44.3	35.11	38067	47.2	26.2	12.4	90	83.3	17.0	33.2	54.1	8.0	44.5	34.22	42234								
AGRIGOLD A636-43VT2PRO	107	P500	1,2	44.7	23.3	10.2	89	84.7	16.5	32.8	54.7	7.1	45.1	35.25	36014	41.0	27.5	11.3	94	83.7	17.4	33.0	53.4	7.5	44.5	34.53	38920								
AGRIGOLD A637-55VT2RIB	106	P500	1,2	47.7	20.6	9.9	84	85.3	17.6	32.9	55.4	8.0	44.7	35.58	35091	45.5	22.4	10.3	87	84.2	19.1	34.7	54.4	8.7	42.7	34.60	35713								
DAIRYLAND SEED HIDF-3802Q	102	P500	1,2,3,4	45.0	23.1	10.2	79	86.6	16.2	32.1	58.3	8.0	45.3	36.46	35227	44.9	27.2	11.8	92	86.8	15.9	30.3	56.3	8.5	47.2	36.56	40650								
DAIRYLAND SEED HIDF-3407RA	107	P500	1,2,3,4	43.0	25.3	11.2	81	83.9	17.0	33.8	54.7	7.5	42.7	35.21	39523	45.7	29.1	13.6	90	82.8	17.8	33.3	53.4	7.9	41.6	34.96	48222								
DAIRYLAND SEED HIDF-3308AM	108	P500	1,2,4	39.7	27.0	10.7	86	84.6	18.7	35.2	58.5	7.4	42.7	35.00	35083	38.4	31.6	12.1	94	83.6	18.8	34.4	56.6	7.8	43.9	34.29	39488								
DAIRYLAND SEED HIDF-3808RA	108	P500	1,2,3,4	41.3	27.0	11.2	92	83.0	20.6	38.1	55.3	7.0	37.0	33.45	37424	39.7	30.8	12.2	90	81.6	21.6	39.7	53.5	7.4	36.5	32.66	39690								
DAIRYLAND SEED DS-4816AMXT	108	P500	1,2,3,4	39.2	27.0	10.2	83	84.9	19.6	35.5	57.6	7.9	41.8	35.11	35657	37.8	31.1	11.1	85	83.5	22.9	37.5	56.0	8.6	39.3	33.91	37793								
DYNAGRO D49SST0	109	P500	1,2,3,4	38.8	25.2	9.4	93	82.5	18.9	35.1	53.4	7.7	42.2	34.46	30053	37.8	29.3	10.8	96	80.7	19.1	34.9	51.1	8.3	41.9	33.93	32013								
FS InVision FS55RL1 EZR	105	C250	1,2,4,6	51.3	17.1	8.6	77	85.4	17.1	33.3	58.0	7.0	44.6	35.55	30673	53.2	19.8	10.5	84	84.9	17.4	32.9	57.8	6.6	44.4	35.13	36992								
FS InVision FS58RL1 EZR	108	C250	1,2,4,6	47.5	23.7	11.2	93	83.4	20.3	36.2	52.6	8.2	42.8	34.18	38104	45.7	28.5	13.0	99	82.1	21.1	36.6	51.0	8.8	40.9	33.20	40904								
GOLDEN HARVEST G08M20-3120	108	C500	1,2,4	47.9	22.6	10.4	86	83.8	18.7	34.7	54.5	8.2	42.4	34.55	35606	48.9	26.8	11.9	92	82.7	19.9	35.4	53.3	8.7	41.4	33.65	39912								
GOLDEN HARVEST G09A86-3110	109	C500	1,2,4,6	43.8	23.6	10.4	83	83.4	19.3	36.0	53.9	7.9	42.6	34.18	35512	44.9	26.6	11.9	92	82.8	19.7	36.6	52.8	8.1	42.4	33.62	40075								
GOLDEN HARVEST G09Y24-3220A	109	C500	1,2,4,6,16	44.4	24.3	10.9	82	82.6	19.2	36.0	54.5	7.4	41.7	33.76	36634	44.6	27.1	12.3	86	81.6	19.2	35.6	53.6	8.0	42.1	32.98	40456								
INTEGRA 5500 STP	105	P500	1,2,3,4	48.4	22.6	11.1	85	83.7	18.1	34.8	55.5	7.8	43.1	34.46	36745	49.2	26.2	13.1	94	83.9	18.7	34.9	53.9	8.5	43.3	34.44	45031								
KingFisher 57T81	107		1	44.9	24.1	10.8	82	86.3	17.2	32.5	58.0	7.3	46.1	36.26	38254	43.2	26.6	11.5	81	85.5	18.9	33.8	57.2	7.8	45.4	35.51	39377								
LG SEEDS LG58C7VT2RIB	108	P500	1,2	46.8	25.4	11.7	85	84.5	18.4	34.2	54.9	8.0	44.0	35.01	40973	42.6	30.3	12.9	90	83.3	18.7	36.0	55.5	7.9	43.3	33.96	43866								
LG SEEDS LG59C66VT2RIB	109	P500	1,2	45.6	21.6	10.0	93	84.3	18.2	34.3	54.4	7.8	44.1	34.90	34756	44.6	22.2	9.9	95	83.3	19.1	35.6	52.9	8.5	43.1	34.00	33741								
LOCAL SEED LC0657 SXXRIB	106	R500	1,2,3,4	48.7	22.0	10.6	86	85.2	16.8	31.8	55.8	8.2	46.8	35.60	36518	46.5	25.6	11.9	94	84.2	17.4	31.8	54.9	8.7	46.6	34.85	39242								
LOCAL SEED LC0877 VT2PRIB	108	R500	1,2	49.8	22.3	11.0	82	84.4	20.1	36.0	56.7	7.7	41.8	34.77	36880	48.4	26.7	12.7	93	83.1	20.8	37.0	54.3	8.2	40.7	33.77	40491								
MASTERS CHOICE MCT-5454	104	C250	1,2,3,4,6	48.8	19.7	9.5	74	85.1	16.8	31.9	55.2	8.1	45.0	35.42	34672	46.5	24.6	11.4	94	83.7	19.0	34.8	53.2	8.4	43.2	34.33	39119								
MASTERS CHOICE MCT-5663	106	C250	1	46.6	21.2	9.6	78	85.3	16.9	34.1	57.1	7.6	44.6	35.49	31734	40.9	26.5	10.9	95	83.9	18.7	36.0	55.5	7.9	43.3	34.37	33229								
NK Brand NK9610-3010	96	C250	1,2,4	59.8	17.4	10.2	89	86.0	17.2	32.4	55.4	7.6	46.2	36.03	36827	54.8	21.7	11.8	99	85.0	19.0	35.0	54.3	7.8	43.7	35.06	44857								
NK Brand NK9738-3220	97	C250	1,2,4,6	50.0	20.3	10.1	92	84.0	18.6	33.0	53.3	8.2	44.2	34.77	35542	49.9	24.9	12.4	97	85.7	16.1	28.0	53.5	8.7	50.5	36.07	44754								
NK Brand NK9852-3120	98	C250	1,2,4	56.3	19.0	10.4	93	85.1	16.6	31.5	55.0	7.6	46.9	35.60	37082	50.9	23.4	11.8	100	84.4	16.6	31.0	54.1	7.9	46.0	35.05	41475								
NK Brand NK9930-3010	99	C250	1,2,4	57.3	14.8	8.8	76	83.6	19.4	35.6	52.4	8.1	45.9	34.36	29599	56.3	15.6	9.2	81	81.8	20.9	37.0	50.8	8.5	41.0	33.01	29191								
NK Brand NK0199-3122A	101	C250	1,2,3,4,16	55.9	17.7	9.5	79	84.8	16.6	33.4	54.7	8.5	44.2	35.23	31309	51.7	21.8	11.0	99	83.7	18.3	34.8	53.2	8.7	44.2	34.32	35961								
NK Brand NK0243-3120	102	C250	1,2,4	50.0	21.2	10.5	87	86.5	16.0	31.3	57.0	7.5	46.9	36.46	37985	48.0	26.2	12.5	98	85.6	17.0	32.6	55.9	7.6	45.9	35.70	44699								
NK Brand NK0440-3122	104	C250	1,2,3,4	48.1	21.9	10.4	83	84.5	20.2	36.3	55.1	7.6	41.2	34.82	33236	46.2	26.1	12.1	92	83.4	20.5	36.0	53.7	8.0	41.9	34.03	37912								
NK Brand NK0886-3120	108	C250	1,2,4	57.1	22.7	13.3**	94	83.4	17.9	33.7	54.0	7.4	43.7	34.40	45458	65.8	25.4	16.8**	97	82.1	19.6	34.9	51.5	7.8	43.9	33.40	56084								
NK Brand NK0962-3220A	109	C250	1,2,4,6,16	41.7	26.5	10.9	90	85.3	18.0	34.5	57.4	7.6	44.5	35.47	40021	40.7	31.3	12.6	96	85.1	17.5	33.6	55.8	8.3	43.8	35.28	44392								
RENK RK937VT2P	107	P250	1,2	45.4	24.2	11.0	95	83.8	18.8	34.9	55.1	7.9	43.2	34.53	39219	43.6	27.8	12.2	96	83.3	19.8	35.8	53.4	8.4	42.1	34.00	44191								
RENK RK945DGV2P	108	P250	1,2,18	43.3	24.4	10.3	84	83.7	19.7	37.2	55.0	6.9	41.0	34.33	35172	46.2	27.8	12.2	92	82.1	21.2	38.6	53.6	6.8	39.0	33.11	40252								
SEEDWAY SW4000 GENSS	100	C250	1,2,3,4	50.7	19.3	10.1	84	85.2	17.0	31.8	53.5	8.5	45.0	35.59	35990	50.5	20.3	10.8	95	84.3	17.7	32.7	52.0	8.9	43.8	34.87	37490								
SEEDWAY SW6320	108	C250	Conv.	40.2	20.0	8.0	75	81.1	20.7	38.4	55.0	7.3	37.0	32.84	27259																				
SEEDWAY SW6540 VT2PRIB	108	P500	1,2	42.0	25.0	10.4	85	84.6	16.8	32.5	53.7	7.7	45.6	35.20	35302	41.1	29.4	12.1	88	83.2	17.2	32.8	50.9	8.0	45.6	34.22	38772								
SPECIALTY 37A593	107	P500	1,2,3,4	43.9	22.1	9.9	88	84.3	17.4	32.9	55.8	8.3	43.8	35.68	35370	42.7	24.0	10.6	90	83.3	17.0	31.9	54.6	9.1	44.3	35.70	38270								
SPECIALTY 38A836	108	P500	1,2,3,4	44.4	21.3	9.4	82	85.7	16.4	32.2	56.7	7.6	44.6	35.66	34556	43.3	24.8	10.8	94	85.7	16.2	30.9	56.2	7.7	45.7	35.80	39886								
VIKING O.51-04PGS	104	C250	Conv.	54.5	17.6	9.6	87	86.3	15.8	30.9	55.6	7.6	47.6	36.48	34916																				
VIKING O.48-08PGS	108	C250	Conv.	52.6	19.3	9.9	78	85.9	17.3	33.0	57.1	6.9	45.1	36.08	35719																				
AVERAGE				47.3	22.3	10.4	85	84.4	18.1	34.2	55.3	7.7	43.6	34.98	35814	46.2	26.0	11.8	93	83.6	18.7	34.4	53.9	8.1	43.3	34.41	40144								
HIGHEST				59.8	27.7	13.3	95	86.6	20.7	38.4	58.5	8.5	46.9	36.46	45458	65.8	31.6	16.8	100	86.8	22.9	39.7	57.8	9.1	50.5	36.66	56064								
LOWEST				38.8	14.8	8.0	74	81.1	16.0	31.3	52.4	6.9	37.0	32.84	27259	37.8	15.6	9.2	81	80.7	15.9	28.0	50.8	6.6	36.5	32.66	29191								
CV (%)				9.2	9.6	11.5	11	3.0	10.3	8.3	3.3	6.4	7.8	4	10	8.1	7.1	8.3	7	2.8	8.6	7.2	3.1	5.3	6.9	4	6								
LSD (5%)				3.6	1.8	1.0	8	2.0	1.5	2.3	1.5	0.4	2.8	1.4	2901	4.4	2.2	1.2	8	2.8	1.9	2.9	1.9	0.5	3.5	1.62	3.028								

2019	Lenawee - Early										Wood - Early														
	YIELD					% QUALITY					YIELD					% QUALITY									
	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MILK 2006	MK/A	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MILK 2006	MK/A	
BRAND / HYBRID	RM	TRT	TRAIT																						
AGRIGOLD A628-16V2PPO	98	P500	1,2										48.2	18.8	9.1	87	83.7	16.0	32.4	55.9	7.2	44.2	3601	33901	
AGRIGOLD A636-43V2PPO	106	P500	1,2										48.3	19.1	9.2	83	85.6	15.6	32.6	56.0	6.7	45.7	3596	33108	
AGRIGOLD A637-55V2RIB	107	P500	1,2										49.8	18.9	9.4	80	86.4	16.0	31.1	56.4	7.3	46.7	3655	34468	
DAIRYLAND SEED HIDF-3802Q	102	P500	1,2,3,4										45.1	19.0	8.6	67	86.5	16.5	33.9	60.2	7.4	43.4	3637	29804	
DAIRYLAND SEED HIDF-3407RA	107	P500	1,2,3,4										40.3	21.5	8.7	72	85.0	16.2	34.2	56.1	7.2	43.7	3545	30824	
DAIRYLAND SEED HIDF-3308AM	108	P500	1,2,4										41.0	22.5	9.2	79	85.7	18.6	36.1	60.4	7.0	41.5	3572	30678	
DAIRYLAND SEED HIDF-3808RA	108	P500	1,2,3,4										42.9	24.6	10.3*	93	84.4	19.7	36.5	57.2	6.5	37.5	3424	35158	
DAIRYLAND SEED DS-4816AMXT	108	P500	1,2,3,4										40.6	22.9	9.3	80	86.3	16.3	33.4	59.2	7.3	44.3	3631	33600	
DYNAGRO D49SS70	109	P500	1,2,3,4										39.9	21.0	8.0	89	84.3	18.6	35.2	55.6	7.1	42.6	3500	28013	
FS InVision FS58RL1 EZR	105	C250	1,2,4,6										49.5	14.3	6.8	69	85.8	16.7	33.8	58.1	7.5	44.7	3598	24355	
FS InVision FS58RL1 EZR	108	C250	1,2,4,6										49.3	18.9	9.3	87	84.8	19.5	35.8	54.2	7.6	44.8	3517	35304	
GOLDEN HARVEST G08M20-3120	108	C500	1,2,4										46.8	18.3	8.8	79	85.0	17.5	33.9	55.7	7.7	43.5	3545	31301	
GOLDEN HARVEST G09A86-3110	109	C500	1,2,4,6										42.7	20.5	8.8	73	84.0	18.9	35.5	55.0	7.8	42.9	3474	30548	
GOLDEN HARVEST G09Y24-3220A	109	C500	1,2,4,6,16										44.2	21.5	9.5	79	83.7	19.2	36.5	55.3	6.7	41.3	3454	32813	
INTEGRA 5500 STP	105	P500	1,2,3,4										47.6	18.9	9.0	76	83.4	17.5	34.8	57.0	7.1	43.0	3448	28458	
KingFisher 57781	107		1										46.6	21.6	10.0*	82	87.2	15.6	31.1	58.8	6.9	48.8	3701	37130	
LG SEEDS LG58C7V2RIB	108	P500	1,2										50.9	20.5	10.6**	81	85.8	16.8	32.5	56.4	7.6	45.2	3606	38080	
LG SEEDS LG59C66V2RIB	109	P500	1,2										46.6	21.1	10.0*	90	85.4	17.3	33.0	55.8	7.0	45.1	3580	35772	
LOCAL SEED LC0657 SXRIB	106	R500	1,2,3,4										50.9	18.4	9.3	77	86.2	16.2	31.8	56.8	7.7	48.9	3636	33793	
LOCAL SEED LC0877 V2PRIB	108	R500	1,2										51.3	18.0	9.2	71	85.6	19.4	35.1	59.1	7.2	43.0	3576	32689	
MASTERS CHOICE MCT-5454	104	C250	1,2,3,4,6										51.1	14.9	7.6	53	86.5	14.5	29.1	57.3	7.9	46.7	3651	30224	
MASTERS CHOICE MCT-5663	106	C250	1										52.2	15.9	8.3	61	86.7	15.0	32.2	58.7	7.3	45.9	3661	30239	
NK Brand NK9610-3010	96	C250	1,2,4										64.8	13.1	8.5	80	87.0	15.4	29.8	56.6	7.4	48.7	3700	28797	
NK Brand NK9738-3220	97	C250	1,2,4,6										50.2	15.6	7.9	87	82.2	21.1	38.1	53.2	7.7	37.9	3348	26330	
NK Brand NK9852-3120	98	C250	1,2,4										61.8	14.6	9.0	86	85.9	16.6	32.0	55.8	7.3	47.7	3615	32690	
NK Brand NK9930-3010	99	C250	1,2,4										58.3	14.0	8.4	71	85.5	17.9	34.3	54.1	7.8	50.9	3571	30007	
NK Brand NK0199-3122A	101	C250	1,2,3,4,16										60.0	13.5	8.1	60	85.9	14.9	32.1	56.1	8.3	44.3	3614	26657	
NK Brand NK0243-3120	102	C250	1,2,4										52.1	16.1	8.4	76	87.4	15.0	30.0	58.1	7.5	47.9	3721	31270	
NK Brand NK0440-3122	104	C250	1,2,3,4										49.9	17.7	8.8	74	85.6	19.9	36.5	56.5	7.2	40.5	3560	28560	
NK Brand NK0886-3120	108	C250	1,2,4										48.4	20.0	9.8*	92	84.7	16.3	32.5	56.4	7.0	43.4	3540	34852	
NK Brand NK0962-3220A	109	C250	1,2,4,6,16										42.6	21.7	9.2	84	85.5	18.5	35.3	58.9	7.0	45.3	3565	35649	
RENK RK937VT2P	107	P250	1,2										47.3	20.7	9.8*	93	84.3	17.8	33.9	56.8	7.3	44.3	3506	34247	
RENK RK945DGV2P	108	P250	1,2,18										40.5	20.9	8.5	76	85.4	18.2	35.8	56.4	7.1	43.0	3554	30082	
SEEDWAY SW4000 GENSS	100	C250	1,2,3,4										51.0	18.2	9.5	73	86.1	16.3	31.0	55.0	8.1	46.3	3631	34490	
SEEDWAY SW6320	108	C250	Conv.										40.2	20.0	8.0	75	81.1	20.7	38.4	55.0	7.3	37.0	3284	27259	
SEEDWAY SW6540 V2PRIB	108	P500	1,2										42.8	20.5	8.8	83	86.0	16.3	32.3	56.6	7.3	45.5	3618	31831	
SPECIALTY 37A593	107	P500	1,2,3,4										45.2	20.2	9.1	86	85.3	17.7	34.0	56.9	7.6	43.3	3566	32470	
SPECIALTY 38A836	108	P500	1,2,3,4										45.6	17.9	8.1	70	85.7	16.7	33.5	57.3	7.5	43.4	3592	29226	
VIKING O.51-04PGS	104	C250	Conv.										54.5	17.6	9.6	87	86.3	15.8	30.9	55.6	7.6	47.6	3648	34916	
VIKING O.48-08PGS	108	C250	Conv.										52.6	19.3	9.9*	87	85.9	17.3	33.0	57.1	6.9	45.1	3608	35719	
AVERAGE													48.3	18.8	9.0	78	85.4	17.3	33.6	56.7	7.3	44.3	3571	31887	
HIGHEST													64.8	24.6	10.6	93	87.4	21.1	38.4	60.4	8.3	50.9	3721	38080	
LOWEST													39.9	13.1	6.8	53	81.1	14.5	29.1	53.2	6.5	37.0	3284	24355	
CV (%)													5.6	6.1	7.7	13	1.9	6.7	6.1	2.1	5.5	5.6	3	6	
LSD (5%)													3.7	1.6	0.9	14	2.2	1.6	2.8	1.6	0.6	3.4	138	2606	

-2 Year Averages Continued On Page 45.

TABLE 6L.

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

ZONE 1

			Late - TRIAL AVERAGE												Branch - Late													
BRAND /HYBRID	RM	TRT	TRAIT	YIELD				% QUALITY				MILK 2006				YIELD				% QUALITY				MILK 2006				
				%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFF	CP	STR	MK/A	MKT	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFF	CP	STR	MK/A	MKT	
DAIRYLAND SEED DS-5018Q	110	P500	1,2,3,4	40.1	27.3	11.0	95	86.7	16.3	31.6	58.0	8.1	45.5	3650	40937	36.5	29.2	10.6	99	85.3	17.5	32.8	55.3	8.6	43.7	3548	39199	
DAIRYLAND SEED HIDF-3211RA	111	P500	1,2,3,4	40.3	25.6	10.5	87	84.5	18.0	34.7	55.5	7.8	42.3	3497	35815	36.1	26.6	10.1	94	84.4	17.9	34.3	54.5	8.0	43.0	3483	33301	
DAIRYLAND SEED DS-5329Q	114	P500	1,2,3,4	44.3	23.4	10.2	84	84.2	18.9	35.8	55.8	7.9	41.2	3464	35154	40.2	26.4	10.7	92	83.7	19.1	35.7	54.3	8.3	41.4	3427	36485	
DYNAGRO D52S63	112	P500	1,2,3,4	45.0	25.1	11.2	87	84.1	17.7	35.3	54.9	7.9	42.0	3463	38142	43.5	29.2	12.7	96	84.5	16.7	33.7	54.1	8.1	44.2	3492	42855	
FS InVision FS60UX1 RIB	110	P500	1,2,3,4	43.9	26.3	11.7	98	83.7	17.5	33.6	53.9	7.9	44.2	3452	38706	42.3	29.3	12.6	100	82.2	18.3	35.4	54.3	7.9	42.4	3338	39394	
FS InVision FS62RL1 EZR	112	C250	1,2,4,6	41.6	24.7	10.2	91	84.2	18.9	34.4	54.1	7.9	43.6	3476	35395	38.8	26.3	10.1	88	82.3	21.2	37.2	52.4	8.3	40.6	3332	33724	
FS InVision FS62ZX1 RIB	112	P500	1,2,3,4	47.1	24.8	11.3	94	82.6	20.5	38.7	54.9	7.7	39.6	3346	37770	46.2	29.1	12.8	99	81.8	21.4	39.8	54.1	7.8	39.2	3276	41979	
FS InVision FS63ZX1 RIB	113	P500	1,2,3,4	44.6	24.7	10.9	92	84.5	16.6	32.9	52.9	7.8	45.5	3508	40159	41.5	28.3	11.7	96	83.8	17.3	33.3	51.3	8.3	45.2	3453	40466	
FS InVision FS64SX1 RIB	114	P500	1,2,3,4	43.4	24.2	10.4	91	83.7	18.1	35.4	54.0	8.0	41.1	3439	35740	41.0	25.7	10.5	93	82.8	18.4	36.0	52.2	8.6	39.3	3370	35349	
GOLDEN HARVEST G10T63-3120	110	C500	1,2,4	42.2	26.4	11.1	91	84.0	19.5	35.6	53.4	7.9	43.1	3455	38307	41.7	28.0	11.6	99	83.4	19.6	35.0	52.4	8.1	43.1	3414	39691	
GOLDEN HARVEST G12J11-3220A	112	C500	1,2,4,6,16	42.6	24.1	10.2	91	82.0	20.2	37.2	53.1	7.9	40.0	3329	32934	41.4	26.0	10.7	96	81.2	20.6	37.1	52.1	8.1	40.7	3268	32964	
GOLDEN HARVEST G14N11-3110	114	C500	1,2,4,6	45.9	24.6	11.4	89	85.0	18.3	34.5	55.5	7.2	44.6	3528	40039	44.3	26.9	12.2	91	84.0	19.8	36.3	53.6	7.3	42.8	3440	42013	
GOLDEN HARVEST G16K01-3111	116	C500	1,2,3,4,6	46.4	25.7	11.5	87	83.7	19.7	35.7	54.4	7.6	41.5	3438	37510	43.4	27.2	11.8	97	81.9	22.8	38.6	53.0	7.8	39.1	3296	37126	
INTEGRA 6010 STP	110	P500	1,2,3,4	44.1	22.9	10.1	86	83.3	19.2	35.6	54.7	8.0	41.2	3414	34659	43.7	23.1	10.1	96	84.0	18.0	33.0	55.0	8.6	44.5	3467	37548	
INTEGRA 6498 STP	114	P250	1	49.8	15.3	8.4	78	79.7	23.5	42.7	52.7	8.4	29.6	3108	26470	46.5	14.9	6.9	91	77.8	25.7	45.7	51.3	8.8	25.1	2916	20062	
LG SEEDS LG5590VT2RIB	110	P500	1,2	45.8	24.4	11.9	97	85.4	15.8	30.7	55.0	7.9	47.3	3580	42331	42.4	26.8	12.9	99	84.0	16.5	31.8	54.3	8.3	45.7	3472	44816	
LG SEEDS LG60C33VT2PRO	110	P500	1,2	45.5	23.7	10.6	89	84.9	17.7	32.7	54.0	8.2	44.2	3535	38797	40.0	26.7	10.7	93	84.6	18.4	33.5	53.9	8.7	43.0	3497	37212	
LG SEEDS LG62C02VT2RIB	112	P500	1,2	43.8	24.4	10.4	91	84.6	18.0	34.2	54.9	8.0	42.9	3504	37785	44.1	26.0	11.5	98	85.8	16.1	31.0	54.1	8.5	46.6	3593	43474	
LOCAL SEED ZS1098 3330EZ	110	R500	1,2,4,6	43.1	23.8	10.2	85	83.0	19.3	35.9	53.9	7.9	41.1	3396	34334	41.0	27.2	11.2	92	82.0	20.0	36.0	52.3	8.3	40.6	3322	34507	
LOCAL SEED LC1349 SSXRIB	113	R500	1,2,3,4	42.4	25.7	10.8	94	84.3	17.6	33.0	52.6	8.3	40.8	3341	34915	40.2	29.4	11.8	98	83.8	18.2	33.6	51.9	9.0	44.6	3451	40858	
LOCAL SEED LC1586 TC	115	P500	1,2,6	46.5	24.8	11.6	84	84.8	17.2	32.0	54.5	8.3	45.6	3533	40804	42.7	26.5	11.3	89	84.0	18.4	32.9	54.7	8.7	44.6	3464	39224	
MASTERS CHOICE MCT-6153	111	C250	1,2,3,4	40.1	24.3	9.8	81	83.6	18.9	35.6	54.1	7.7	41.8	3437	34630	39.9	26.7	10.8	88	83.8	18.3	34.5	52.9	8.1	42.9	3442	39057	
MASTERS CHOICE MCT-6363	113	C250	1,2,3,4	43.5	23.1	10.1	80	83.7	18.4	34.7	53.0	8.1	41.5	3446	32807	43.3	24.6	10.6	85	82.9	19.2	36.0	52.4	8.3	39.9	3377	34099	
SEEDWAY SW6630 GENSS	110	C250	1,2,3,4	43.4	25.2	10.9	90	86.3	15.7	31.3	56.3	7.5	46.4	3633	40449	41.6	28.6	11.9	95	85.6	16.5	32.2	55.3	7.5	45.9	3575	44612	
SPECIALTY 42A843	112	P500	1,2,3,4	42.3	25.0	11.2	92	83.1	19.3	36.8	54.0	7.7	40.4	3393	37941	43.1	28.9	13.2	**	82.5	19.6	37.4	53.1	8.2	39.7	3342	44197	
VIKING O.74-10PGS	110	C250	Conv.	44.4	19.9	8.8	75	85.8	16.0	31.8	55.3	7.5	45.6	3603	29900													
VIKING 53-12PGS	112	C250	Conv.	49.1	22.2	10.4	79	86.0	16.6	32.1	56.4	7.5	45.8	3613	37579													
VIKING O.82-14PGS	114	C250	Conv.	42.0	23.6	9.9	88	84.0	17.3	33.6	58.1	6.5	44.1	3486	36403													
AVERAGE				44.0	24.1	10.6	88	84.1	18.2	34.6	54.6	7.8	42.6	3467	36657	41.8	26.7	11.2	94	83.3	19.0	35.3	53.4	8.2	41.9	3402	38163	
HIGHEST				49.8	27.3	11.9	98	86.7	23.5	42.7	58.1	8.4	47.3	3650	42331	46.5	29.4	13.2	100	85.8	25.7	45.7	55.3	9.0	46.6	3593	44816	
LOWEST				40.1	15.3	8.4	75	79.7	15.7	30.7	52.6	6.5	29.6	3108	26470	36.1	14.9	6.9	85	77.8	16.1	31.0	51.3	7.3	25.1	2916	20062	
CV (%)				8.0	9.5	10.8	7	2.9	10.8	8.5	3.4	6.3	8.6	4	10	7.3	7.7	7.3	5	2.3	9.2	7.3	2.4	6.2	7.2	4	6	
LSD (5%)				2.8	1.9	0.9	5	2.0	1.6	2.4	1.5	0.4	3.0	1.19	3.133	3.6	2.4	1.0	6	2.2	2.1	3.1	1.5	0.6	3.6	1.51	2630	

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

2019			Lenawee - Late							Wood - Late															
BRAND /HYBRID	RM	TRT	TRAIT	YIELD			% QUALITY				MILK 2006			YIELD			% QUALITY				MILK 2006				
				%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/MT	MK/A	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR
DAIRYLAND SEED DS-5018Q	110	P500	1,2,3,4											43.7	25.4	11.4	91	88.1	15.1	30.3	60.7	7.7	47.3	3753	42675
DAIRYLAND SEED HIDF-3211RA	111	P500	1,2,3,4											44.6	24.6	10.9	79	84.7	18.0	35.1	56.4	7.7	41.6	3510	38328
DAIRYLAND SEED DS-5329Q	114	P500	1,2,3,4											48.4	20.5	9.7	77	84.6	18.7	36.0	57.2	7.5	40.9	3500	33822
DYNAGRO D52S63	112	P500	1,2,3,4											46.6	21.0	9.7	78	83.6	18.8	37.0	55.8	7.7	39.9	3434	33450
FS InVision FS60UX1 RIB	110	P500	1,2,3,4											45.6	23.3	10.7	97	85.2	16.6	31.9	53.4	7.9	46.0	3565	36028
FS InVision FS62RL1 EZR	112	C250	1,2,4,6											44.4	23.0	10.2	91	86.0	16.5	31.7	55.9	7.6	46.6	3620	37066
FS InVision FS62ZX1 RIB	112	P500	1,2,3,4											48.0	20.6	9.8	88	83.4	19.6	37.5	55.7	7.5	39.9	3415	33562
FS InVision FS63ZX1 RIB	113	P500	1,2,3,4											47.7	21.1	10.1	88	85.2	15.8	32.5	54.4	7.2	45.8	3563	39852
FS InVision FS64SX1 RIB	114	P500	1,2,3,4											45.7	22.7	10.3	90	84.6	17.9	34.9	55.7	7.4	42.8	3508	36131
GOLDEN HARVEST G10T63-3120	110	C500	1,2,4											42.7	24.9	10.6	82	84.6	19.3	36.3	54.4	7.7	43.1	3496	36924
GOLDEN HARVEST G12J11-3220A	112	C500	1,2,4,6,16											43.9	22.2	9.7	85	82.9	19.8	37.2	54.1	7.7	39.2	3390	32913
GOLDEN HARVEST G14N11-3110	114	C500	1,2,4,6											47.4	22.3	10.5	87	86.1	16.9	32.7	57.4	7.1	46.4	3616	38065
GOLDEN HARVEST G16K01-3111	116	C500	1,2,3,4,6											49.4	24.2	11.3	77	85.5	16.6	32.8	55.7	7.3	44.0	3580	37894
INTEGRA 6010 STP	110	P500	1,2,3,4											44.5	22.8	10.1	76	82.5	20.4	38.3	54.4	7.5	37.9	3360	31770
INTEGRA 6498 STP	114	P250	1											53.0	15.8	10.0	66	81.7	21.3	39.7	54.0	8.0	34.2	3299	32878
LG SEEDS LG5590V2RIB	110	P500	1,2											49.2	22.0	10.8	96	86.9	15.1	29.6	55.7	7.4	49.0	3688	39846
LG SEEDS LG60C33V2PRO	110	P500	1,2											51.0	20.8	10.6	85	85.3	16.9	32.0	54.1	7.7	45.4	3573	40381
LG SEEDS LG62C02V2RIB	112	P500	1,2											43.5	22.9	9.4	84	83.4	19.9	37.5	55.7	7.5	39.2	3415	32095
LOCAL SEED ZS1098 3330EZ	110	R500	1,2,4,6											45.1	20.3	9.2	78	84.1	18.6	35.8	55.5	7.5	41.6	3470	34161
LOCAL SEED LC1349 S5XRIB	113	R500	1,2,3,4											44.6	22.0	9.8	89	84.8	17.1	32.5	53.3	7.7	37.0	3232	28972
LOCAL SEED LC1586 TC	115	P500	1,2,6											50.3	23.1	11.8	78	85.7	16.0	31.2	54.2	7.9	46.5	3602	42383
MASTERS CHOICE MCT-6153	111	C250	1,2,3,4											40.4	21.9	8.8	74	83.5	19.5	36.7	55.2	7.3	40.8	3433	30203
MASTERS CHOICE MCT-6363	113	C250	1,2,3,4											43.7	21.6	9.5	75	84.5	17.6	33.3	53.6	7.8	43.1	3515	31515
SEEDWAY SW6630 GENSS	110	C250	1,2,3,4											45.1	21.8	9.8	85	87.0	15.0	30.4	57.4	7.4	47.0	3691	36287
SPECIALTY 42A843	112	P500	1,2,3,4											41.6	21.1	9.2	92	83.7	19.1	36.2	54.8	7.3	41.2	3444	31784
VIKING O.74-10PGS	110	C250	Conv.											44.4	19.9	8.8	75	85.8	16.0	31.8	55.3	7.5	45.6	3603	29900
VIKING 53-12PGS	112	C250	Conv.											49.1	22.2	10.4	79	86.0	16.6	32.1	56.4	7.5	45.8	3613	37579
VIKING O.82-14PGS	114	C250	Conv.											42.0	23.6	9.9	88	84.0	17.3	33.6	58.1	6.5	44.1	3486	36403
AVERAGE														45.9	22.1	10.1	83	84.8	17.7	34.2	55.5	7.5	42.9	3513	35531
HIGHEST														53.0	25.4	11.8	97	88.1	21.3	39.7	60.7	8.0	49.0	3753	42675
LOWEST														40.4	15.8	8.8	66	81.7	15.0	29.6	53.3	6.5	34.2	3232	28972
CV (%)														6.0	6.0	7.6	8	1.5	7.7	6.1	2.4	4.6	6.3	3	5
LSD (5%)														3.7	1.8	1.1	9	1.7	1.9	2.9	1.8	0.5	3.7	128	2443

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

TABLE 7E.

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

ZONE 2 - 3

2019			Early - TRIAL AVERAGE										Huron - Early															
BRAND / HYBRID	RM	TRT	TRAIT	YIELD			% QUALITY				MILK 2006			YIELD			% QUALITY				MILK 2006							
				%DM	G/T/A	D/T/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/MT	MK/A	%DM	G/T/A	D/T/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/MT	MK/A	
DAIRYLAND SEED HIDF-3197RA	97	P500	1,2,3,4	56.8	22.0	12.5	96	81.2	22.0	40.8	54.9	8.0	37.8	3245	40110	51.7	21.8	11.1	95	82.5	21.6	39.1	52.5	8.2	38.1	3328	36924	
DAIRYLAND SEED HIDF-3397RA	97	P500	1,2,3,4	43.7	23.8	10.4	97	77.0	27.0	48.9	53.0	7.1	26.3	2908	29402	42.3	23.3	9.8	95	80.2	22.0	42.6	53.5	7.5	34.0	3168	29357	
DAIRYLAND SEED DS-3715AM	97	P500	1,2,4	62.6	21.3	13.2	96	81.4	21.3	39.6	54.7	7.2	38.8	3264	46120	47.6	21.9	10.8	95	81.2	19.8	36.8	52.6	7.3	39.1	3261	39812	
DAIRYLAND SEED HIDF-3099RA	99	P500	1,2,3,4	42.2	25.0	10.5	95	80.1	22.9	41.5	54.0	7.5	35.5	3143	33918	39.7	24.9	9.8	93	79.0	23.5	40.5	52.3	7.4	33.6	3047	31490	
DAIRYLAND SEED HIDF-3802Q	102	P500	1,2,3,4	37.7	28.3	10.6	95	81.0	23.1	43.2	57.6	7.3	31.8	3187	32857	36.1	28.4	10.2	96	81.2	19.6	40.1	56.6	7.2	36.8	3250	34480	
DAIRYLAND SEED DS-4318AMXT	104	P500	1,2,3,4	36.9	27.3	10.1	99	80.7	23.3	43.2	56.8	7.1	31.7	3188	32447	34.2	27.2	9.3	99	81.0	21.2	39.7	55.5	6.8	35.8	3239	32357	
DYNAGRO D43SS81	103	P500	1,2,3,4	44.6	23.5	10.3	97	81.4	23.6	44.2	55.8	7.3	34.0	3308	34828	38.4	24.3	9.2	97	82.5	20.4	39.0	55.0	7.4	36.0	3330	30461	
GOLDEN HARVEST G03R40-3110	103	C250	1,2,4,6	54.2	21.7	11.7	98	78.2	24.8	45.5	52.1	7.6	29.4	3001	34235	50.2	24.2	11.2	97	79.1	22.2	42.9	51.2	7.3	31.1	3035	32178	
GOLDEN HARVEST G04S19-3122	104	C250	1,2,3,4	39.3	27.3	10.5	96	79.1	25.8	46.5	53.6	7.3	27.4	3026	31236	35.1	27.4	9.1	93	80.6	23.1	42.3	54.1	6.9	33.6	3191	30730	
INTEGRA 4550 STP	95	P250	1	45.1	23.3	10.8	99	78.8	24.2	45.4	53.2	7.6	31.4	3062	33407	44.2	22.6	10.4	98	79.1	24.2	43.5	51.9	7.7	30.8	3079	31937	
INTEGRA 4810 STP	98	P250	1	47.6	23.8	11.5	96	79.5	23.5	44.5	54.0	8.1	33.9	3117	33489	46.6	23.5	11.1	94	82.9	17.9	37.5	54.4	8.4	41.1	3368	34774	
INTEGRA 5209 STP	102	P500	1,2,3,4	48.0	22.8	11.0	96	81.4	22.1	41.5	56.7	7.5	35.3	3252	36057	39.7	24.4	9.7	98	82.1	20.4	38.6	56.8	7.2	37.4	3313	30813	
LEGACY SEEDS L-5217 VT2P	102	1,2		46.1	25.0	11.8	97	81.2	20.5	39.5	55.6	7.1	38.3	3265	35385	41.0	24.9	10.3	98	83.0	18.9	36.1	54.4	7.4	40.8	3387	34356	
LEGACY SEEDS L-5350 3122	104	CM250	1,2,3,4,6	37.6	26.1	9.7	93	81.3	21.9	41.6	55.3	7.3	34.7	3246	31638	33.1	26.4	8.7	91	81.2	24.3	44.3	53.1	7.1	30.1	3201	25629	
LEGACY SEEDS L-5438 3010	104	CM250	1,2,4	39.9	26.9	10.7	98	80.2	24.0	44.1	55.0	6.9	31.1	3159	33912	35.3	26.3	9.3	96	79.8	24.1	43.5	53.4	6.9	31.0	3135	28971	
LG SEEDS LG5494VT2RIB	99	P500	1,2	50.5	22.7	11.6	96	80.4	19.9	39.7	55.8	7.2	37.4	3213	35874	42.4	22.2	9.7	94	82.1	16.4	34.8	55.5	7.1	41.9	3344	32435	
LG SEEDS LG5505VT2RIB	100	P500	1,2	47.1	26.0	12.1	97	81.7	20.9	39.7	55.3	7.6	35.6	3175	35842	41.5	27.2	11.3	97	82.7	19.6	35.6	54.6	7.6	35.4	3150	32819	
LG SEEDS LG51C48VT2PRO	101	P500	1,2	38.6	29.8	11.4	97	79.0	24.2	45.2	53.6	7.5	31.7	3083	34232	35.2	30.1	10.5	96	81.9	20.9	39.7	54.4	7.6	35.3	3291	34651	
LOCAL SEED LC0488 SSXRIB	104	R500	1,2,3,4	49.4	25.5	12.6	97	81.5	22.3	42.0	55.9	7.2	35.5	3257	39845	44.2	26.0	11.4	95	82.7	20.0	37.9	54.4	7.5	38.5	3357	36293	
MASTERS CHOICE MCT-5454	104	C250	1,2,3,4,6	44.0	24.2	10.6	97	81.1	20.6	42.1	53.4	7.3	37.2	3231	34166	41.4	23.4	9.7	95	82.6	19.8	38.0	54.2	7.2	38.6	3348	32393	
NK Brand NK9820-3120	89	C250	1,2,4	57.1	20.1	11.3	98	81.7	19.4	39.6	55.5	7.9	36.4	3274	38554	52.8	19.2	9.8	97	83.0	18.6	35.6	54.5	7.3	44.6	3395	33106	
NK Brand NK9175-3110A	91	C250	1,2,4,6,16	69.1	20.3	13.5	**	100	79.8	23.4	43.6	53.9	7.1	33.5	3134	43263	63.9	20.9	11.9	**	81.9	18.2	36.4	53.9	6.8	42.3	3322	39534
NK Brand NK9227-3220A	92	C250	1,2,4,6,16	47.7	22.6	10.7	97	80.3	23.0	42.2	55.2	7.8	32.2	3138	33947	45.5	23.0	10.3	98	81.3	20.4	39.0	55.7	7.6	34.1	3179	32744	
NK Brand NK9535-3220	95	C250	1,2,4,6	53.0	22.8	12.1	98	79.3	22.7	41.4	54.3	7.5	34.1	3105	37514	44.1	22.9	10.1	97	81.6	20.8	37.2	53.9	7.3	34.8	3102	33735	
NK Brand NK9610-3010	96	C250	1,2,4	62.4	19.5	11.8	98	81.6	21.3	41.7	55.9	7.6	36.7	3261	38262	46.4	21.6	10.0	97	82.1	19.6	39.7	54.9	7.2	39.3	3302	33125	
NK Brand NK9738-3220	97	C250	1,2,4,6	49.3	23.2	11.3	98	81.7	19.4	39.6	55.5	7.9	36.4	3274	38554	49.0	23.3	11.4	96	84.4	15.0	30.6	56.3	7.7	48.0	3510	42900	
NK Brand NK9852-3120	98	C250	1,2,4	49.6	23.0	11.4	98	80.8	22.4	41.7	53.9	7.1	36.3	3218	35608	46.8	23.4	11.0	98	82.6	21.3	39.6	52.5	7.2	37.4	3329	36484	
NK Brand NK9830-3010	99	C250	1,2,4	51.3	20.4	10.6	94	78.4	25.4	47.1	52.4	7.7	31.3	3032	33738	44.8	20.4	9.4	89	79.8	22.0	42.3	52.3	7.8	35.9	3148	30888	
NK Brand NK0199-3122A	101	C250	1,2,3,4,16	45.1	21.8	9.6	97	81.8	20.0	40.3	55.1	7.7	37.7	3292	32074	39.7	22.9	9.1	94	84.0	17.9	35.9	55.4	7.8	40.1	3448	31154	
RENK RK717SSTX	95	P500	1,2,3,4	44.5	24.9	11.0	97	79.7	23.6	42.4	53.8	7.7	32.8	3123	35777	39.1	25.4	9.9	96	82.1	23.2	39.8	52.8	7.8	33.2	3253	32091	
RENK 9S-104-3010	97		1,2,4	50.0	23.1	11.6	95	80.6	24.6	45.3	55.3	7.4	33.2	3169	35474	43.0	24.0	10.5	93	81.9	21.2	39.6	54.2	7.6	36.9	3289	34630	
RENK RK710DGV2P	98	P250	1,2,18	41.5	26.5	11.2	96	82.2	21.4	41.0	56.5	7.0	34.7	3305	36260	37.7	26.4	10.0	95	82.6	20.0	38.5	54.8	7.0	36.5	3342	33224	
RENK RK724RR	98	P250	1	45.7	24.3	11.0	90	81.0	22.1	41.9	54.5	7.6	33.5	3223	35124	38.9	25.7	10.0	88	83.5	18.2	35.8	54.1	7.8	39.5	3421	34028	
RENK RK771	100	P250	CONV.	42.7	25.3	10.8	96	81.1	22.4	41.9	55.9	7.4	33.8	3232	33736	42.1	25.8	10.8	93	84.0	17.7	34.7	56.3	7.6	41.2	3458	35235	
RENK 9S-109-3110	102		1,2,4,6	38.9	25.1	9.7	97	79.1	23.7	44.2	54.5	8.2	33.0	3098	29423	35.7	25.3	8.9	95	81.9	18.2	37.6	55.5	8.5	36.5	3304	28697	
VIKING O.82-95P	95	C250	Conv.	52.1	20.0	10.5	94	82.3	19.3	38.6	57.1	7.9	39.0	3330	34755	44.6	19.6	8.7	89	83.2	18.6	38.1	55.8	7.6	39.4	3379	32929	
VIKING O.89-01P	101	C250	Conv.	43.0	25.8	11.1	96	80.9	21.0	40.0	56.9	7.3	37.2	3240	34359	42.7	24.7	10.5	94	82.6	18.7	36.4	56.7	7.5	40.0	3363	35419	
VIKING O.51-04PGS	104	C250	Conv.	46.0	24.2	11.1	97	82.1	19.8	39.6	54.8	7.5	36.2	3306	36404	45.1	26.1	11.7	96	84.0	17.4	35.3	54.8	7.7	40.9	3455	42102	
AVERAGE				47.4	24.0	11.2	97	80.4	22.7	42.7	54.8	7.5	34.1	3178	35280	42.7	24.2	10.2	95	81.9	20.2	38.5	54.3	7.5	37.4	3285	33357	
HIGHEST				69.1	29.8	13.5	100	82.2	27.0	48.9	57.6	8.2	38.8	3308	46120	63.9	30.1	11.9	99	84.4	24.3	44.3	56.8	8.5	48.0	3510	42900	
LOWEST				36.9	19.5	9.6	90	77.0	19.4	39.5	52.1	6.9	26.2	2908	29402	33.1	19.2	8.7	88	79.0	15.0	30.6	51.2	6.8	30.1	3035	25629	
CV (%)				8.8	7.5	11.1	3	3.7	9.3	8.1	3.8	5.8	8.3	5	7	7.9	8.0	9.5	3	3.3	7.3	7.6	3.1	5.8	6.6	5	7	
LSD (5%)				3.5	1.5	1.0	2	2.5	1.7	2.8	1.7	0.4	2.3	1.44	2072	4.0	2.3	1.1	4	3.2	1.7	3.4	2.0	0.5	2.9	1.93	2581	

2019 BRAND / HYBRID	RM	TRT	TRAIT	Ingham - Early						Ottawa - Early														
				YIELD			% QUALITY			MILK 2006			YIELD			% QUALITY			MILK 2006					
				%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/T	MK/A	%ADM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP
DAIRYLAND SEED HIDF-3197RA	97	P500	1,2,3,4										61.8	22.1	13.8	97	79.8	22.3	42.5	57.3	7.8	37.6	3162	43296
DAIRYLAND SEED HIDF-3397RA	97	P500	1,2,3,4										45.1	24.2	11.0	99	73.8	32.1	55.3	52.5	6.8	18.6	2647	29446
DAIRYLAND SEED DS-3715AM	97	P500	1,2,4										77.7	20.4	15.6 **	97	81.7	22.7	42.5	56.8	7.1	38.5	3268	54028
DAIRYLAND SEED HIDF-3099RA	99	P500	1,2,3,4										44.8	25.1	11.2	96	81.2	22.3	42.5	55.8	7.7	37.5	3239	36346
DAIRYLAND SEED HIDF-3802Q	102	P500	1,2,3,4										39.2	28.2	11.1	95	80.7	26.7	46.3	58.5	7.5	26.8	3125	31234
DAIRYLAND SEED DS-4318AMXT	104	P500	1,2,3,4										39.6	27.3	10.8	99	80.5	25.4	46.6	58.2	7.4	27.5	3137	32557
DYNAGRO D43SS81	103	P500	1,2,3,4										50.9	22.7	11.5	98	80.4	26.8	49.5	56.6	7.2	32.0	3286	39194
GOLDEN HARVEST G03R40-3110	103	C250	1,2,4,6										58.2	21.1	12.2	99	77.4	27.3	48.2	53.1	7.8	27.7	2967	36292
GOLDEN HARVEST G04S19-3122	104	C250	1,2,3,4										43.6	27.2	11.9	99	77.6	28.5	50.7	53.1	7.6	21.2	2861	31743
INTEGRA 4550 STP	95	P250	1										46.0	24.0	11.2	100	78.5	24.2	47.3	54.6	7.5	32.0	3045	34878
INTEGRA 4810 STP	98	P250	1										48.7	24.1	11.8	97	76.1	29.1	51.6	53.7	7.9	26.6	2866	32203
INTEGRA 5209 STP	102	P500	1,2,3,4										56.3	21.2	12.3	95	80.7	23.9	44.5	56.6	7.7	33.2	3191	41301
LEGACY SEEDS L-5217 VT2P	102	1,2	1,2										51.2	25.1	13.4	95	79.5	22.2	42.9	56.8	6.9	35.8	3142	36415
LEGACY SEEDS L-5350 3122	104	CM250	1,2,3,4,6										42.1	25.8	10.7	95	81.5	19.6	38.9	57.5	7.5	39.2	3290	37648
LEGACY SEEDS L-5438 3010	104	CM250	1,2,4										44.5	27.6	12.2	99	80.6	24.0	44.7	56.5	6.9	31.2	3183	38852
LG SEEDS LG5494VT2RIB	99	P500	1,2										58.7	23.3	13.4	97	78.7	23.4	44.6	56.1	7.2	33.0	3083	39313
LG SEEDS LG5505VT2RIB	100	P500	1,2										52.6	24.7	12.8	98	80.7	22.1	43.8	56.0	7.6	35.7	3200	38865
LG SEEDS LG510C48VT2PRO	101	P500	1,2										42.1	29.5	12.4	98	76.0	27.6	50.7	52.8	7.4	28.1	2874	33813
LOCAL SEED LC0488 SSXRIB	104	R500	1,2,3,4										54.7	25.1	13.8	98	80.4	24.6	46.2	57.5	6.9	32.6	3158	43396
MASTERS CHOICE MCT-5454	104	C250	1,2,3,4,6										46.7	25.0	11.6	98	79.6	21.4	46.2	52.7	7.5	35.8	3114	35940
NK Brand NK920-3120	89	C250	1,2,4										61.5	21.1	12.9	99	80.5	22.9	44.4	56.0	8.1	33.0	3179	41002
NK Brand NK9175-3110A	91	C250	1,2,4,6,16										74.3	19.7	15.1 *	100	77.7	28.5	50.8	53.8	7.3	24.6	2946	46993
NK Brand NK9227-3220A	92	C250	1,2,4,6,16										49.9	22.2	11.1	97	79.4	25.6	45.5	54.6	8.1	30.3	3096	35151
NK Brand NK9535-3220	95	C250	1,2,4,6										61.9	22.7	14.1 *	99	76.9	24.6	45.5	54.8	7.7	33.4	3108	41293
NK Brand NK9610-3010	96	C250	1,2,4										78.3	17.3	13.5	99	81.1	23.0	43.8	56.9	8.0	34.1	3221	43399
NK Brand NK9738-3220	97	C250	1,2,4,6										49.6	23.2	11.3	100	79.0	23.8	48.7	54.7	8.0	24.9	3038	34208
NK Brand NK9852-3120	98	C250	1,2,4										52.3	22.6	11.9	99	79.0	23.6	43.8	55.4	7.1	35.3	3107	34731
NK Brand NK9930-3010	99	C250	1,2,4										57.9	20.4	11.8	99	77.1	28.7	51.9	52.5	7.6	26.8	2916	36588
NK Brand NK0199-3122A	101	C250	1,2,3,4,16										50.6	20.6	10.1	99	79.7	22.1	44.8	54.8	7.6	35.3	3135	32994
RENK RK717SSTX	95	P500	1,2,3,4										50.0	24.3	12.2	99	77.3	24.1	44.9	54.9	7.5	32.4	2994	39463
RENK 9S-104-3010	97	1,2,4	1,2,4										57.0	22.3	12.7	96	79.4	27.9	51.0	56.3	7.3	29.4	3049	36319
RENK RK710DGV2P	98	P250	1,2,18										45.4	26.6	12.4	98	81.8	22.8	43.5	58.3	7.1	32.9	3288	39297
RENK RK724RR	98	P250	1										52.6	22.8	12.0	92	78.4	26.1	47.9	55.0	7.4	27.4	3025	36220
RENK RK771	100	P250	CONV.										43.4	24.7	10.7	99	78.2	27.0	49.0	55.6	7.3	26.4	3006	32237
RENK 9S-109-3110	102	1,2,4,6	1,2,4,6										42.1	24.9	10.5	99	76.4	29.2	50.8	53.5	7.9	29.4	2892	32149
VIKING O.82-99P	95	C250	Conv.										59.7	20.5	12.3	99	81.5	20.0	39.2	58.4	8.1	38.6	3281	40282
VIKING O.69-01P	101	C250	Conv.										43.2	27.0	11.6	98	79.2	23.3	43.7	57.1	7.2	34.4	3118	33299
VIKING O.51-04PGS	104	C250	Conv.										47.0	22.4	10.6	99	80.2	22.2	43.8	54.7	7.3	31.6	3156	30706
AVERAGE													52.1	23.6	12.1	98	79.2	24.8	46.3	55.5	7.5	31.3	3089	37186
HIGHEST													78.3	29.5	15.6	100	81.8	32.1	55.3	58.5	8.1	39.2	3290	54028
LOWEST													39.2	17.3	10.1	92	73.8	19.6	38.9	52.5	6.8	18.6	2647	29446
CV (%)													8.4	6.3	10.4	3	4.1	8.4	7.2	4.3	5.7	7.0	6	7
LSD (5%)													5.1	1.7	1.5	3	3.8	2.4	3.9	2.8	0.5	2.6	214	3264

TABLE 7L.

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

ZONE 2 - 3

2019			Late - TRIAL AVERAGE										Huron - Late																
			YIELD					% QUALITY					MILK 2006					YIELD					% QUALITY					MILK 2006	
BRAND /HYBRID	RM	TRT	TRAIT	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/T	MK/A	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/T	MK/A		
AG ARMOUR AA10810	108	C250	1,2,4	43.4	26.6	11.5	99	80.4	23.1	43.3	54.8	7.8	30.5	3127	33423	38.6	28.4	11.0	101	82.5	20.0	38.4	54.5	7.8	37.4	3344	32362		
DAIRYLAND SEED HIDF-3407RA	107	P500	1,2,3,4	39.3	28.5	11.2	100	77.6	24.9	46.0	54.6	6.6	29.7	3012	33278	37.2	30.0	11.1	100	81.7	19.8	38.8	55.6	6.8	35.5	3295	36581		
DAIRYLAND SEED HIDF-3308AM	108	P500	1,2,4	33.2	30.5	10.2	98	79.4	26.8	46.6	57.3	7.6	27.9	3171	31084	32.4	30.2	9.9	98	80.8	24.4	44.9	54.3	7.5	28.2	3181	26883		
DAIRYLAND SEED DS-4816AMXT	108	P500	1,2,3,4	36.5	30.3	11.0	100	79.2	26.9	46.0	54.9	8.1	28.4	3042	33016	32.9	32.4	10.6	100	79.6	24.1	43.4	53.1	8.2	32.7	3131	31172		
DAIRYLAND SEED DS-5018Q	110	P500	1,2,3,4	38.0	28.3	10.6	99	81.4	22.3	44.3	56.5	7.6	34.1	3232	35990	36.4	30.1	10.8	99	80.1	23.9	43.7	54.5	7.5	31.5	3155	35619		
DYNAGRO D47SS29	107	P500	1,2,3,4	46.4	28.1	12.6**	101	79.7	23.6	42.7	55.4	7.7	31.6	3112	40528	44.9	29.1	12.6**	106	83.3	17.3	36.3	53.8	7.8	41.2	3406	45234		
DYNAGRO D49SS70	109	P500	1,2,3,4	38.6	28.7	11.0	100	80.7	22.3	42.9	54.7	7.5	34.0	3209	35645	33.9	30.2	10.3	101	81.9	19.8	38.6	53.0	7.4	36.6	3305	35941		
GOLDEN HARVEST G08M20-3120	108	C500	1,2,4	43.5	27.2	11.8*	99	81.1	21.5	41.4	55.8	7.9	35.1	3240	37295	38.6	29.2	11.2	100	81.0	19.7	38.2	54.0	7.7	37.8	3258	34551		
GOLDEN HARVEST G09A86-3110	109	C500	1,2,4,6	40.0	27.5	10.9	97	78.1	25.4	46.5	53.0	7.6	30.1	3020	32078	38.1	29.0	11.0	98	79.0	22.2	43.8	52.1	7.4	33.3	3096	34065		
GOLDEN HARVEST G09Y24-3220A	109	C500	1,2,4,6,16	36.8	31.1	11.5	97	81.0	23.6	44.6	55.7	7.3	30.7	3206	38524	34.4	32.2	11.1	98	81.3	20.4	40.9	54.2	7.1	35.3	3251	36108		
GOLDEN HARVEST G10T63-3120	110	C500	1,2,4	37.8	32.0	11.8*	99	78.0	26.1	47.2	53.4	7.8	28.3	3017	35409	36.2	32.3	11.7*	99	79.4	23.5	43.7	52.8	7.8	30.1	3117	36476		
GOLDEN HARVEST G12J11-3220A	112	C500	1,2,4,6,16	35.3	30.4	10.6	100	76.3	25.2	49.3	50.3	7.9	31.7	2903	30954	31.8	32.3	10.2	100	76.1	24.8	47.1	49.3	7.9	30.3	2899	29595		
INTEGRA 5500 STP	105	P500	1,2,3,4	43.8	24.4	10.6	96	80.0	23.4	43.5	54.0	7.7	32.1	3166	32274	40.2	26.2	10.5	97	81.1	21.6	40.6	53.4	7.7	35.0	3240	33909		
KingFisher 57T81	107	1	1	41.9	27.8	11.3	97	80.1	24.9	45.4	56.3	7.5	30.3	3155	34417	34.4	29.0	10.0	98	83.1	20.1	38.8	56.5	7.1	36.4	3377	31655		
LEGACY SEEDS L-6047 SXX	105	A500	1,2,3,4	42.8	29.0	12.4*	96	81.0	23.7	44.1	53.3	7.5	31.6	3212	38851	40.3	29.5	11.8*	95	81.4	22.6	42.9	54.1	7.4	31.6	3237	38328		
LG SEEDS LG5525VT2RIB	105	P500	1,2	46.3	26.8	12.3*	98	82.0	20.4	41.3	56.2	7.3	37.1	3297	40461	39.9	28.0	11.2	97	82.9	19.0	37.5	54.4	7.5	38.5	3376	37676		
LG SEEDS LG58C77VT2RIB	108	P500	1,2	39.6	26.9	10.6	94	80.0	22.5	42.5	53.4	7.7	33.6	3192	33799	38.0	29.3	11.1	95	80.9	20.2	37.1	50.3	7.7	36.3	3302	37050		
LG SEEDS LG59C66VT2RIB	109	P500	1,2	41.9	29.6	12.4*	100	77.6	26.3	48.1	53.4	7.7	27.6	2988	36911	36.6	31.2	11.4	100	78.8	24.2	44.1	51.9	7.5	31.6	3079	34986		
LOCAL SEED LC0657 SXXRIB	106	R500	1,2,3,4	43.1	27.5	11.8*	97	80.9	22.2	43.1	55.6	7.9	33.3	3218	38731	38.0	30.2	11.5*	98	80.3	21.0	41.6	52.6	7.7	35.5	3186	38822		
LOCAL SEED LC0877 VT2PRIB	108	R500	1,2	44.1	27.7	12.2*	95	81.3	23.5	44.0	55.6	7.8	33.9	3230	40457	41.3	29.3	12.1*	94	81.5	21.2	40.5	54.5	7.9	35.0	3267	39388		
LOCAL SEED ZS1098 3330EZ	110	R500	1,2,4,6	42.9	28.1	11.8*	97	79.4	25.1	47.1	55.7	7.5	30.3	3094	35486	39.4	27.6	10.8	99	80.4	24.2	46.2	56.5	7.4	30.8	3144	31960		
LOCAL SEED LC1349 SXXRIB	113	R500	1,2,3,4	38.9	29.2	11.5	99	78.7	22.7	45.0	52.8	8.0	31.9	3079	36810	36.8	29.7	11.2	97	80.3	20.6	41.5	52.7	8.0	33.1	3190	36528		
MASTERS CHOICE MCT-5663	106	C250	1	40.7	28.1	11.2	96	79.6	25.7	46.2	53.7	7.4	29.6	3114	35589	38.6	29.4	10.9	94	79.5	24.0	43.8	53.3	7.4	30.5	3123	33858		
MASTERS CHOICE MC-5790	107	C250	CONV.	42.8	27.3	11.6	99	81.6	23.0	42.6	55.1	7.9	29.4	3178	36028	38.2	28.3	10.8	99	81.9	21.8	39.9	54.8	7.8	31.4	3187	34315		
VIKING O.48-08PGS	108	C250	Conv.	43.6	26.4	11.4	95	82.5	21.1	40.4	56.6	7.2	37.1	3337	37313	45.2	26.5	11.7*	92	85.4	16.7	33.9	56.9	7.5	43.1	3553	41666		
VIKING O.74-10PGS	110	C250	Conv.	40.8	26.7	10.9	97	80.7	21.1	42.6	55.9	7.9	34.2	3210	35594	39.4	27.4	10.8	96	82.1	19.0	41.3	54.5	7.7	37.3	3293	36806		
AVERAGE				40.8	28.3	11.4	98	79.9	23.7	44.5	54.8	7.6	31.7	3145	35767	37.7	29.5	11.0	98	81.0	21.4	41.1	53.7	7.6	34.5	3230	35482		
HIGHEST				46.4	32.0	12.6	101	82.5	26.9	49.3	57.3	8.1	37.1	3337	40528	45.2	32.4	12.6	106	85.4	24.8	47.1	56.9	8.2	43.1	3553	45234		
LOWEST				33.2	24.4	10.2	94	76.3	20.4	40.4	50.3	6.6	27.6	2903	30954	31.8	26.2	9.9	92	76.1	16.7	33.9	49.3	6.8	28.2	2899	26883		
CV (%)				8.3	6.6	9.7	4	3.6	8.9	7.8	4.4	5.3	9.7	5	6	8.0	6.4	8.2	4	2.7	7.9	6.8	4.4	5.5	7.7	4	6		
LSD (5%)				2.8	1.6	0.9	3	2.4	1.7	2.9	2.0	0.3	2.5	133	1823	3.6	2.2	1.1	5	2.6	2.0	3.3	2.8	0.5	3.1	167	2569		

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

2019		Ingham - Late										Ottawa - Late																	
		YIELD					% QUALITY					MILK 2006					YIELD					% QUALITY					MILK 2006		
BRAND /HYBRID	RM	TRT	TRAIT	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/A	MKA	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/A	MKA		
AG ARMOUR AA10810	108	C250	1,2,4													48.3	24.8	11.9	97	78.3	26.3	48.2	55.1	7.8	23.5	2910	34485		
DAIRYLAND SEED HIDF-3407RA	107	P500	1,2,3,4													41.5	26.9	11.3	100	73.5	30.0	53.2	53.7	6.4	24.0	2730	29975		
DAIRYLAND SEED HIDF-3308AM	108	P500	1,2,4													34.0	30.8	10.4	98	77.9	29.3	48.4	60.3	7.7	27.7	3162	33285		
DAIRYLAND SEED DS-4816AMXT	108	P500	1,2,3,4													40.1	28.3	11.4	101	78.8	29.7	48.7	56.8	8.1	24.2	2954	34860		
DAIRYLAND SEED DS-5018Q	110	P500	1,2,3,4													39.6	26.6	10.4	98	82.7	20.7	44.8	58.5	7.7	36.7	3308	36361		
DYNAGRO D47SS29	107	P500	1,2,3,4													47.9	27.1	12.5*	96	76.1	30.0	49.2	57.1	7.5	22.0	2819	35822		
DYNAGRO D49SS70	109	P500	1,2,3,4													43.3	27.3	11.8	99	79.5	24.9	47.1	56.4	7.5	31.3	3113	35348		
GOLDEN HARVEST G08M20-3120	108	C500	1,2,4													48.5	25.2	12.4*	99	81.1	23.3	44.5	57.5	8.1	32.4	3223	40038		
GOLDEN HARVEST G09A86-3110	109	C500	1,2,4,6													41.9	26.0	10.9	95	77.1	28.6	49.3	53.8	7.8	26.9	2943	30091		
GOLDEN HARVEST G09Y24-3220A	109	C500	1,2,4,6,16													39.3	30.0	12.0	96	80.7	26.7	48.2	57.1	7.6	26.2	3162	40939		
GOLDEN HARVEST G10T63-3120	110	C500	1,2,4													39.4	31.7	11.8	99	76.6	28.8	50.7	53.9	7.9	26.5	2916	34342		
GOLDEN HARVEST G12J11-3220A	112	C500	1,2,4,6,16													38.8	28.5	11.1	100	76.6	25.6	51.5	51.3	7.9	33.1	2906	32313		
INTEGRA 5500 STP	105	P500	1,2,3,4													47.4	22.6	10.8	95	79.0	25.2	46.3	54.7	7.8	29.1	3092	30640		
KingFisher 57T81	107		1													49.4	26.6	12.7*	96	77.2	29.8	52.1	56.2	8.0	24.2	2932	37180		
LEGACY SEEDS L-6047 SXX	105	A500	1,2,3,4													45.4	28.5	12.9*	97	80.6	24.8	45.3	52.5	7.6	31.7	3186	39374		
LG SEEDS LG5525VT2RIB	105	P500	1,2													52.6	25.7	13.5**	100	81.0	21.9	45.1	57.9	7.1	35.6	3218	43247		
LG SEEDS LG58C7VT2RIB	108	P500	1,2													41.2	24.5	10.1	93	79.1	24.7	48.0	56.6	7.7	31.0	3082	30548		
LG SEEDS LG59C66VT2RIB	109	P500	1,2													47.3	28.1	13.5**	100	76.5	28.4	52.0	54.9	7.9	23.6	2897	38836		
LOCAL SEED LC0657 SXXRIB	106	R500	1,2,3,4													48.2	24.9	12.0	97	81.6	23.4	44.5	58.7	8.0	31.2	3251	38639		
LOCAL SEED LC0877 VT2PRIB	108	R500	1,2													46.9	26.2	12.4*	96	81.1	25.7	47.4	56.8	7.7	32.7	3194	41525		
LOCAL SEED ZS1098 3330EZ	110	R500	1,2,4,6													46.3	28.7	12.8*	96	78.4	26.0	47.9	55.0	7.6	29.9	3045	39012		
LOCAL SEED LC1349 SXXRIB	113	R500	1,2,3,4													41.1	28.8	11.9	101	77.2	24.9	48.4	52.8	8.0	30.7	2969	38092		
MASTERS CHOICE MCT-5663	106	C250	1													42.9	26.8	11.6	97	79.7	27.4	48.5	54.1	7.4	28.8	3105	37321		
MASTERS CHOICE MC-5790	107	C250	CONV.													47.4	26.4	12.5*	100	81.2	24.2	45.2	55.4	7.9	27.4	3169	37741		
VIKING O.48-08PGS	108	C250	Conv.													42.0	26.3	11.0	98	79.6	25.4	46.9	56.4	6.9	31.2	3121	32960		
VIKING O.74-10PGS	110	C250	Conv.													42.2	26.1	11.0	99	79.3	23.1	43.9	57.2	8.1	31.1	3128	34392		
AVERAGE																44.0	27.0	11.8	98	78.9	26.1	47.9	55.8	7.7	29.0	3059	36052		
HIGHEST																52.6	31.7	13.5	101	82.7	30.0	53.2	60.3	8.1	36.7	3308	43247		
LOWEST																34.0	22.6	10.1	93	73.5	20.7	43.9	51.3	6.4	22.0	2730	29975		
CV (%)																7.1	6.4	8.9	3	4.4	7.6	7.7	4.4	4.9	8.7	6	6		
LSD (5%)																3.7	2.1	1.2	4	4.1	2.3	4.3	2.9	0.5	3.0	210	2636		

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

TABLE 7E - Continued from page 37. HURON, INGHAM & OTTAWA COUNTY SILAGE TRIALS - EARLY (104 Day and Earlier) ZONE 2 - 3

2 Year Averages 2019 - 2018																													
BRAND / HYBRID	RM	TRT	TRAIT	YIELD				% QUALITY				MILK 2006																	
				%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFFD	CP	STR	MK/T	MK/A														
DAIRYLAND SEED HIDF-3197RA	97	P500	1,2,3,4	49.0	21.3	10.5	**	94	81.7	20.1	39.4	54.2	8.1	39.4	3281	34401	46.3	20.3	9.4	*	97	83.8	18.7	36.3	54.0	8.3	40.3	3429	32612
DAIRYLAND SEED HIDF-3099RA	99	P500	1,2,3,4	40.2	25.0	10.0	*	95	80.9	20.5	39.0	52.8	7.9	38.0	3218	32257	39.1	23.2	9.1	*	96	81.4	20.2	37.9	53.0	8.2	36.4	3240	29946
LEGACY SEEDS L-5350 3122	104	CM250	1,2,3,4,6	36.7	25.0	9.2		93	81.8	20.6	39.9	53.5	7.4	37.9	3280	30110	32.9	23.8	7.8		94	81.8	22.4	42.2	53.1	7.3	35.7	3260	24317
MASTERS CHOICE MCT-5454	104	C250	1,2,3,4,6	42.3	23.6	10.0	*	94	81.8	19.5	39.5	52.6	7.5	39.0	3286	32790	40.9	22.2	9.2	*	94	83.0	17.9	35.3	52.9	7.5	41.5	3395	31089
NK Brand NK9227-3220A	92	C250	1,2,4,6,16	43.9	22.2	9.7		96	81.6	19.5	38.1	53.2	8.1	37.2	3265	31766	41.6	21.7	9.0	*	98	82.6	17.9	36.4	53.9	8.1	37.6	3314	29658
RENK RK724RR	98	P250	1	41.9	24.6	10.3	*	92	81.6	20.7	40.3	53.7	7.5	34.9	3258	33321	38.2	24.9	9.6	**	92	83.8	17.5	35.4	54.2	7.7	39.0	3427	32852
AVERAGE				42.3	23.6	9.9		94	81.6	20.1	39.4	53.4	7.8	37.7	3265	32441	39.8	22.7	9.0		95	82.7	19.1	37.3	53.5	7.9	38.4	3344	30079
HIGHEST				49.0	25.0	10.5		96	81.8	20.7	40.3	54.2	8.1	39.4	3286	34401	46.3	24.9	9.6		98	83.8	22.4	42.2	54.2	8.3	41.5	3429	32852
LOWEST				36.7	21.3	9.2		92	80.9	19.5	38.1	52.6	7.4	34.9	3218	30110	32.9	20.3	7.8		92	81.4	17.5	35.3	52.9	7.3	35.7	3240	24317
CV (%)				7.5	8.0	9.5	4	3.1	10.0	8.4	4.3	5.9	10.4	5	8		7.0	7.4	8.8	3	2.7	7.0	7.1	3.2	5.4	7.0	4	7	
LSD (5%)				1.8	1.0	0.6	2	1.3	1.2	1.9	1.2	0.2	1.9	84	1530		2.4	1.5	0.7	2	1.8	1.1	2.2	1.4	0.3	2.2	117	1829	

2 Year Averages 2019 - 2018																													
BRAND / HYBRID	RM	TRT	TRAIT	YIELD				% QUALITY				MILK 2006																	
				%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFFD	CP	STR	MK/T	MK/A														
DAIRYLAND SEED HIDF-3197RA	97	P500	1,2,3,4	51.7	22.3	11.6	**	91	79.6	21.5	42.4	54.4	7.9	38.6	3134	36191	41.2	26.8	11.0	*	94	80.4	20.7	40.2	52.7	7.7	39.6	3197	34567
DAIRYLAND SEED HIDF-3099RA	99	P500	1,2,3,4	40.5	26.2	10.5		92	81.7	18.8	37.7	54.0	7.5	40.1	3299	35903	40.5	26.2	10.5		92	81.7	18.8	37.7	54.0	7.5	40.1	3299	35903
LEGACY SEEDS L-5350 3122	104	CM250	1,2,3,4,6	43.6	25.0	10.9	*	95	80.6	21.1	43.7	52.4	7.6	36.6	3177	34490	46.2	22.6	10.4		94	80.7	21.2	39.8	52.5	8.1	36.9	3215	33873
MASTERS CHOICE MCT-5454	104	C250	1,2,3,4,6	45.7	24.3	11.0	*	91	79.3	23.9	45.2	53.2	7.2	30.7	3088	33790	44.8	24.6	10.9		93	80.4	21.2	41.5	53.2	7.7	37.1	3185	34802
NK Brand NK9227-3220A	92	C250	1,2,4,6,16	51.7	26.8	11.6		95	81.7	23.9	45.2	54.4	8.1	40.1	3299	36191	40.5	22.3	10.4		91	79.3	18.8	37.7	52.4	7.2	30.7	3088	33790
RENK RK724RR	98	P250	1	7.0	6.9	8.6	4	3.5	7.8	7.1	3.7	5.4	8.3	5	7		2.9	1.4	0.8	3	2.3	1.6	2.6	1.7	0.3	2.2	135	2044	
AVERAGE				44.8	24.6	10.9		93	80.4	21.2	41.5	53.2	7.7	37.1	3185	34802	44.8	24.6	10.9		93	80.4	21.2	41.5	53.2	7.7	37.1	3185	34802
HIGHEST				51.7	26.8	11.6		95	81.7	23.9	45.2	54.4	8.1	40.1	3299	36191	51.7	26.8	11.6		95	81.7	23.9	45.2	54.4	8.1	40.1	3299	36191
LOWEST				40.5	22.3	10.4		91	79.3	18.8	37.7	52.4	7.2	30.7	3088	33790	40.5	22.3	10.4		91	79.3	18.8	37.7	52.4	7.2	30.7	3088	33790
CV (%)				7.0	6.9	8.6	4	3.5	7.8	7.1	3.7	5.4	8.3	5	7		2.9	1.4	0.8	3	2.3	1.6	2.6	1.7	0.3	2.2	135	2044	
LSD (5%)				2.9	1.4	0.8	3	2.3	1.6	2.6	1.7	0.3	2.2	135	2044		2.9	1.4	0.8	3	2.3	1.6	2.6	1.7	0.3	2.2	135	2044	

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

2 Year Averages 2019 - 2018		Late - TRIAL AVERAGE										Huron - Late																								
BRAND / HYBRID	RM	TRT	TRAIT	YIELD					% QUALITY					MILK 2006					YIELD					% QUALITY					MILK 2006							
				%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/T	MK/A	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/T	MK/A	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP
DAIRYLAND SEED HIDF-3407RA	107	P500	1,2,3,4	36.8	27.6	10.2	97	79.2	22.3	42.3	53.4	7.0	33.6	3126	30927	36.3	26.1	9.5	99	82.5	18.4	37.0	55.5	7.2	37.4	3358	30897	83.1	16.8	36.3	53.4	7.8	40.9	3399	36293	
DYNAGRO D47SS29	107	P500	1,2,3,4	41.6	26.4	10.8	96	80.7	20.6	39.7	53.2	7.8	36.4	3213	35360	41.1	25.3	10.3	**	99	83.1	16.8	36.3	53.4	7.8	40.9	3399	36293	81.3	20.3	40.8	54.4	7.8	34.9	3256	30710
GOLDEN HARVEST G09A86-3110	109	C500	1,2,4,6	37.9	26.3	9.9	96	80.1	22.0	42.5	53.5	7.9	34.0	3168	30416	37.4	25.4	9.5	99	82.1	19.1	39.0	55.7	7.4	33.6	3303	30457	81.1	21.6	41.2	54.1	7.8	33.4	3238	31518	
GOLDEN HARVEST G09Y24-3220A	109	C500	1,2,4,6,16	35.0	28.6	10.1	94	81.3	21.2	41.4	55.3	7.6	33.0	3241	33076	33.8	27.0	9.2	98	82.9	19.1	39.0	54.9	7.4	39.4	3362	35365	83.5	18.4	37.2	54.9	7.5	39.7	3417	33097	
GOLDEN HARVEST G10T63-3120	110	C500	1,2,4	36.5	29.1	10.4	96	79.3	23.3	43.5	52.8	7.9	32.5	3113	31919	36.8	26.7	9.8	**	99	81.9	20.9	39.7	54.4	7.5	34.5	3298	31524	82.2	19.4	38.7	54.6	7.6	36.3	3324	32071
LG SEEDS LG5525VT2RIB	105	P500	1,2	44.1	24.2	10.7	98	82.9	19.1	39.0	54.9	7.4	39.4	3362	35365	40.7	24.0	9.7	**	99	83.5	18.4	37.2	54.9	7.5	39.7	3417	33097	81.9	20.9	39.7	54.4	7.5	34.5	3298	31524
MASTERS CHOICE MCT-5663	106	C250	1	38.4	26.6	10.1	94	81.3	22.3	41.7	54.0	7.6	34.2	3244	33612	38.1	25.3	9.4	99	82.2	19.4	38.7	54.6	7.6	36.3	3324	32071	83.5	18.4	37.2	54.9	7.5	39.7	3417	33097	
AVERAGE				38.6	27.0	10.3	96	80.7	21.5	41.4	53.9	7.6	34.7	3210	32954	37.7	25.7	9.6	98	82.2	19.4	38.7	54.6	7.6	36.3	3324	32071	83.5	18.4	37.2	54.9	7.5	39.7	3417	33097	
HIGHEST				44.1	29.1	10.8	98	82.9	23.3	43.5	55.3	7.9	39.4	3362	35365	41.1	27.0	10.3	99	83.5	18.4	37.2	54.9	7.5	39.7	3417	33097	81.1	16.8	36.3	53.4	7.2	33.4	3238	30457	
LOWEST				35.0	24.2	9.9	94	79.2	19.1	39.0	52.8	7.0	32.5	3113	30416	33.8	24.0	9.2	93	81.1	16.8	36.3	53.4	7.2	33.4	3238	30457	2.4	7.5	6.7	3.8	5.3	7.8	4	6	
CV (%)				6.8	6.0	8.2	4	2.8	7.8	7.0	3.9	5.2	9.6	4	6	7.0	6.0	7.8	4	2.4	7.5	6.7	3.8	5.3	7.8	4	6	1.6	1.3	2.2	1.7	0.3	2.3	103	1758	
LSD (5%)				1.5	0.9	0.5	2	1.2	0.9	1.6	1.1	0.2	1.7	73	1172	2.2	1.4	0.7	3	1.6	1.3	2.2	1.7	0.3	2.3	103	1758	1.6	1.3	2.2	1.7	0.3	2.3	103	1758	

2 Year Averages 2019 - 2018		Ingham - Late										Ottawa - Late																										
BRAND / HYBRID	RM	TRT	TRAIT	YIELD					% QUALITY					MILK 2006					YIELD					% QUALITY					MILK 2006									
				%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/T	MK/A	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/T	MK/A	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/T
DAIRYLAND SEED HIDF-3407RA	107	P500	1,2,3,4																																			
DYNAGRO D47SS29	107	P500	1,2,3,4																																			
GOLDEN HARVEST G09A86-3110	109	C500	1,2,4,6																																			
GOLDEN HARVEST G09Y24-3220A	109	C500	1,2,4,6,16																																			
GOLDEN HARVEST G10T63-3120	110	C500	1,2,4																																			
LG SEEDS LG5525VT2RIB	105	P500	1,2																																			
MASTERS CHOICE MCT-5663	106	C250	1																																			
AVERAGE																																						
HIGHEST																																						
LOWEST																																						
CV (%)																																						
LSD (5%)																																						

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

2019			TRIAL AVERAGE											Iosco - Early ¹																	
			YIELD					% QUALITY						YIELD					% QUALITY												
BRAND / HYBRID	RM	TRT	TRAIT	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MILK	2006	MKT	MK/A	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MILK	2006	MKT	MK/A
DAIRYLAND SEED HIDF-3197RA	97	P500	1,2,3,4	56.7	25.2	14.9 *	95	81.7	21.5	40.4	54.5	8.5	34.9	3296	49026			28.9			95	80.6	21.2	39.5	51.0	8.2	37.3				
DAIRYLAND SEED HIDF-3397RA	97	P500	1,2,3,4	55.4	25.8	13.0	93	80.7	21.5	42.3	55.3	8.0	33.0	3198	42938			30.6			91	80.2	21.5	40.2	50.6	8.0	36.6				
DAIRYLAND SEED DS-3715AM	97	P500	1,2,4	58.7	25.7	12.9	94	83.1	18.7	36.6	56.3	7.9	40.4	3439	43391			30.3			97	82.1	19.8	37.3	52.1	7.8	40.5				
GOLDEN HARVEST G90Y04-3110A	92	C250	1,2,4,6,16	54.2	26.1	13.1	97	82.4	20.4	39.7	55.4	8.2	36.6	3289	42960			29.9			99	83.4	17.5	34.3	51.6	8.7	43.2				
GOLDEN HARVEST G95D32-3220	95	C250	1,2,4,6	52.5	23.2	11.6	98	83.1	17.5	35.8	55.0	8.2	41.5	3352	39622			27.1			100	84.7	15.4	31.1	50.7	8.4	46.9				
KingFisher 34C30	84	Conv.		59.2	23.0	13.4	88	83.5	18.3	35.4	54.2	8.8	39.6	3434	43511			24.7			88	83.0	17.7	33.4	50.0	8.9	43.5				
KingFisher 43C40	93	Conv.		63.8	22.4	12.4	95	81.6	20.7	39.8	53.6	8.7	34.7	3225	39565			28.1			99	82.0	18.9	36.3	50.3	8.7	40.4				
LG SEEDS LG6410V72RIB	91	P500	1,2	51.7	27.6	13.2	99	82.2	19.9	40.0	55.4	7.8	35.9	3325	45143			31.8			101	81.8	19.1	36.8	51.0	8.0	41.0				
LG SEEDS LG42C63VT2RIB	92	P500	1,2	54.4	24.3	12.2	95	84.6	17.6	35.1	55.8	8.5	40.5	3469	42408			27.4			96	85.2	16.4	31.4	52.7	8.3	48.2				
LG SEEDS LG44C27V72RIB	94	P500	1,2	63.9	25.7	15.9**	97	83.6	19.3	38.1	56.0	8.0	39.0	3415	54453			27.9			99	83.7	19.0	36.7	52.7	7.9	40.8				
LG SEEDS LG6465V72RIB	97	P500	1,2	53.8	26.8	13.4	99	84.4	16.8	34.3	56.3	8.4	41.9	3475	46513			30.2			101	84.7	14.1	30.0	53.1	8.5	47.8				
LOCAL SEED ZS9598 5222EZ	95	R500	1,2,4,6	60.9	25.9	14.1	97	82.0	18.5	39.3	54.2	8.2	36.4	3364	46245			31.0			99	80.3	17.7	37.3	49.8	8.3	39.5				
LOCAL SEED ZS9796 3220EZ	97	R500	1,2,4,6	64.1	24.0	15.0 *	99	82.4	17.7	36.8	54.7	7.8	40.0	3355	50129			26.3			98	83.0	14.7	32.5	51.6	7.9	45.8				
AVERAGE				57.6	25.1	13.5	96	82.7	19.1	38.0	55.1	8.2	38.0	3355	45070			28.8			97	82.7	17.9	35.1	51.3	8.3	42.4				
HIGHEST				64.1	27.6	15.9	99	84.6	21.5	42.3	56.3	8.8	41.9	3475	54453			31.8			101	85.2	21.5	40.2	53.1	8.9	48.2				
LOWEST				51.7	22.4	11.6	88	80.7	16.8	34.3	53.6	7.8	33.0	3198	39565			24.7			88	80.2	14.1	30.0	49.8	7.8	36.6				
CV (%)				10.2	5.6	11.7	4	2.8	9.5	8.3	3.2	4.7	8.5	4	6			3.7			3	2.4	9.8	8.0	3.1	4.1	8.2				
LSD (5%)				4.9	1.0	1.3	3	1.6	1.2	2.1	1.2	0.3	2.2	125	2280			1.3			4	2.4	2.1	3.4	1.9	0.4	4.2				

2 Year Averages 2019 - 2018			TRIAL AVERAGE											Iosco - Early																	
YIELD					% QUALITY						YIELD					% QUALITY															
BRAND / HYBRID	RM	TRT	TRAIT	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MILK	2006	MKT	MK/A	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MILK	2006	MKT	MK/A
DAIRYLAND SEED HIDF-3197RA	97	P500	1,2,3,4	45.2	22.6	10.9**	96	82.3	20.3	39.3	55.1	8.5	35.6	3287	35652			23.6			97	82.9	18.0	35.5	53.8	7.9	41.2				
DAIRYLAND SEED DS-3715AM	97	P500	1,2,4	47.4	21.9	9.6	95	83.6	17.3	34.8	55.1	8.2	41.5	3428	32293			25.4			97	83.8	15.7	31.9	51.8	7.6	46.3				
GOLDEN HARVEST G95D32-3220	95	C250	1,2,4,6	44.6	21.2	9.2	98	83.3	17.2	35.1	53.4	8.5	40.7	3401	31448			23.8			99	83.8	16.6	32.7	50.5	8.0	44.7				
KingFisher 43C40	93	Conv.		50.0	20.8	9.7	95	82.3	18.7	37.6	52.6	8.8	35.0	3298	31634			24.0			99	82.4	16.9	34.1	49.2	8.6	38.6				
LG SEEDS LG6465V72RIB	97	P500	1,2	44.4	23.3	10.1	98	84.1	17.3	35.7	56.2	8.5	40.0	3440	34813			25.7			99	84.8	15.5	32.8	53.9	8.1	45.9				
AVERAGE				46.3	22.0	9.9	96	83.1	18.1	36.5	54.5	8.5	38.6	3371	33168			24.5			98	83.5	16.5	33.4	51.9	8.0	43.3				
HIGHEST				50.0	23.3	10.9	98	84.1	20.3	39.3	56.2	8.8	41.5	3440	35652			25.7			99	84.8	18.0	35.5	53.9	8.6	46.3				
LOWEST				44.4	20.8	9.2	95	82.3	17.2	34.8	52.6	8.2	35.0	3287	31448			23.6			97	82.4	15.5	31.9	49.2	7.6	38.6				
CV (%)				8.8	6.1	10.3	4	2.7	9.1	7.8	4.2	5.5	8.6	4	6			4.3			3	2.6	8.7	7.8	5.3	4.5	8.9				
LSD (5%)				2.7	0.8	0.7	2	1.2	0.9	1.5	1.2	0.2	1.8	87	1438			0.9			2	1.8	1.3	2.2	2.3	0.3	3.2				

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

¹ Missing data due to equipment malfunction

2019		Osceola - Early										Presque Isle - Early																
		YIELD					% QUALITY					YIELD					% QUALITY											
		%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MILK 2006	MK/MT	MK/A	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MILK 2006	MK/MT	MK/A	
BRAND / HYBRID	RM	TRT	TRAIT	55.5	20.4	14.1	96	82.3	21.4	41.9	57.7	8.6	34.9	3330	47059	57.9	26.3	15.6	**	94	82.1	22.0	39.7	54.9	8.7	32.5	3261	50994
DAIRYLAND SEED HIDF-3197RA	97	P500	1,2,3,4	69.3	20.0	14.0	93	81.4	21.3	42.7	59.5	7.7	34.1	3278	48113	41.5	27.0	11.9	95	80.5	21.8	44.1	55.7	8.2	28.2	3118	37764	
DAIRYLAND SEED DS-3715AM	97	P500	1,2,4	71.7	22.1	14.3	91	83.8	19.2	38.4	60.4	7.6	39.2	3446	49382	45.6	24.8	11.5	95	83.4	17.0	34.1	56.4	8.2	41.5	3433	37400	
GOLDEN HARVEST G90Y04-3110A	92	C250	1,2,4,6,16	59.6	22.5	13.4	94	82.7	20.0	40.8	60.0	8.0	36.9	3365	44908	48.9	25.9	12.8	98	81.2	23.6	44.1	54.6	8.0	29.7	3213	41012	
GOLDEN HARVEST G95D32-3220	95	C250	1,2,4,6	49.2	19.6	10.0	95	82.4	18.7	38.3	60.4	8.0	40.0	3361	35393	55.8	22.9	13.1	99	82.4	18.5	38.1	53.8	8.3	37.8	3343	43852	
KingFisher 34C30	84		Conv.	59.3	21.3	12.6	89	83.1	20.9	40.3	58.0	8.7	32.0	3389	42703	59.1	22.9	14.3	86	84.0	16.3	32.5	54.5	9.0	43.3	3478	44319	
KingFisher 43C40	93		Conv.	74.4	20.6	15.1	92	80.3	24.7	44.8	56.2	8.3	27.8	3103	46785	53.3	18.5	9.7	94	82.6	18.5	38.2	54.3	9.1	35.9	3348	32345	
LG SEEDS LG5410VT2RIB	91	P500	1,2	58.1	24.4	14.2	98	82.0	20.8	43.2	58.4	7.5	33.6	3307	46711	45.3	26.7	12.2	99	82.7	19.7	40.1	57.0	8.1	33.0	3343	43375	
LG SEEDS LG42C63VT2RIB	92	P500	1,2	59.3	21.7	12.2	93	85.2	17.0	36.7	59.8	8.4	38.1	3542	43280	49.6	23.7	12.2	95	83.2	19.4	37.3	55.1	8.8	35.4	3395	41535	
LG SEEDS LG44C27VT2RIB	94	P500	1,2	71.6	24.8	17.7	**	85.0	18.8	38.3	60.9	7.8	39.9	3519	62380	56.2	24.5	14.1	99	82.1	20.0	39.4	54.5	8.3	36.3	3310	46526	
LG SEEDS LG5465VT2RIB	97	P500	1,2	60.1	23.3	14.6	97	83.7	20.5	39.8	59.0	8.1	36.9	3428	50122	47.6	27.0	12.2	100	84.8	15.8	33.1	56.8	8.6	41.1	3522	42903	
LOCAL SEED ZS9598 5222EZ	95	R500	1,2,4,6	78.6	22.1	17.3	*	83.4	18.8	39.8	58.2	8.2	37.4	3412	56869	43.3	24.8	10.8	99	82.4	19.0	40.9	54.6	8.0	32.3	3316	35622	
LOCAL SEED ZS9796 3220EZ	97	R500	1,2,4,6	66.7	21.6	15.1	99	82.3	20.0	41.1	57.2	7.5	34.9	3344	50593	61.5	24.1	15.0	*	99	81.9	18.5	36.7	55.5	8.0	39.2	3326	49666
AVERAGE				64.1	21.9	14.2	94	82.9	20.2	40.5	58.9	8.0	35.8	3371	48023	51.2	24.5	12.7	96	82.6	19.2	38.3	55.2	8.4	35.9	3339	42116	
HIGHEST				78.6	24.8	17.7	99	85.2	24.7	44.8	60.9	8.7	40.0	3542	62380	61.5	27.0	15.6	100	84.8	23.6	44.1	57.0	9.1	43.3	3522	50994	
LOWEST				49.2	19.6	10.0	89	80.3	17.0	36.7	56.2	7.5	27.8	3103	35393	41.5	18.5	9.7	86	80.5	15.8	32.5	53.8	8.0	28.2	3118	32345	
CV (%)				8.1	6.1	5.8	5	2.9	7.6	7.4	3.4	4.5	7.9	4	6	6.3	5.6	7.7	3	2.9	7.2	7.8	2.5	5.2	6.3	5	6	
LSD (5%)				6.2	1.6	1.0	6	2.8	1.8	3.6	2.4	0.4	3.4	176	3272	3.8	1.6	1.2	4	2.8	1.7	3.6	1.7	0.5	2.7	183	3261	

2 Year Averages 2019 - 2018		Osceola - Early										Presque Isle - Early																
		YIELD					% QUALITY					YIELD					% QUALITY											
		%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MILK 2006	MK/MT	MK/A	%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MILK 2006	MK/MT	MK/A	
DAIRYLAND SEED HIDF-3197RA	97	P500	1,2,3,4	44.3	22.6	11.1	*	81.8	21.9	42.3	56.0	8.7	33.2	3285	35669	46.1	21.7	10.8	**	96	82.2	21.1	40.0	55.4	8.9	32.5	3289	35634
DAIRYLAND SEED DS-3715AM	97	P500	1,2,4	55.2	21.7	11.3	*	83.6	18.3	36.5	57.5	8.3	39.3	3440	38790	39.5	18.6	7.8	96	83.3	17.9	36.0	56.1	8.8	39.0	3415	25796	
GOLDEN HARVEST G95D32-3220	95	C250	1,2,4,6	43.5	21.6	9.3	97	83.2	17.2	35.7	55.9	8.6	40.5	3417	32699	45.6	18.3	9.0	97	82.9	17.9	37.0	53.9	8.8	37.0	3385	30196	
KingFisher 43C40	93		Conv.	54.9	22.3	11.8	**	82.0	20.9	40.2	54.9	8.6	33.1	3268	38638	45.1	16.2	7.5	96	82.5	18.3	38.7	53.7	9.3	33.3	3328	24630	
LG SEEDS LG5465VT2RIB	97	P500	1,2	47.8	23.4	11.5	*	83.3	19.4	39.1	57.9	8.5	35.9	3397	39117	40.9	20.9	8.6	98	84.4	16.9	35.2	56.8	9.1	38.1	3482	30508	
AVERAGE				49.1	22.3	11.0	95	82.8	19.5	38.8	56.5	8.5	36.4	3361	36983	43.5	19.1	8.7	96	83.1	18.4	37.4	55.2	9.0	36.0	3380	29353	
HIGHEST				55.2	23.4	11.8	97	83.6	21.9	42.3	57.9	8.7	40.5	3440	39117	46.1	21.7	10.8	98	84.4	21.1	40.0	56.8	9.3	39.0	3482	35634	
LOWEST				43.5	21.6	9.3	92	81.8	17.2	35.7	54.9	8.3	33.1	3268	32699	39.5	16.2	7.5	96	82.2	16.9	35.2	53.7	8.8	32.5	3289	24630	
CV (%)				7.2	7.5	6.7	5	2.5	8.0	6.8	3.3	6.6	7.5	4	6	5.6	5.8	7.3	3	2.5	7.9	7.7	3.9	5.8	7.2	4	6	
LSD (5%)				3.4	1.4	0.7	4	1.7	1.3	2.2	1.6	0.5	2.3	108	1979	2.2	1.0	0.7	2	1.7	1.3	2.5	1.8	0.4	2.1	112	1771	

** Highest Yielding Hybrid

* Not Significantly Different from Highest Yielding Hybrid

2019			TRIAL AVERAGE										Iosco - Late ¹												
BRAND /HYBRID	RM TRT	TRAIT	YIELD			% QUALITY					MILK 2006			YIELD			% QUALITY					MILK 2006			
			%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/IT	MK/A	DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/IT
DAIRYLAND SEED HIDF-3099RA	99 P500	1,2,3,4	43.8	28.4	11.5	93	81.9	20.6	39.6	54.2	8.3	36.7	3333	38370	32.6	96	81.5	19.3	37.1	50.1	8.3	40.6			
DAIRYLAND SEED DS-4318AMXT	104 P500	1,2,3,4	46.7	28.9	12.0	99	83.7	19.3	38.0	58.4	7.9	37.0	3555	42545	35.2	101	80.5	22.1	40.4	51.7	8.0	35.3			
DAIRYLAND SEED DS-4318AMXT	99 Conv.	1,2,3,4	61.4	22.9	12.3	97	84.7	18.9	36.2	58.7	8.1	39.5	3534	43403	27.8	97	84.1	18.8	34.9	54.5	8.1	40.8			
LG SEEDS LG51C48V72PRO	101 P500	1,2	43.6	30.4	12.6	100	83.3	19.4	38.8	56.9	7.9	35.7	3452	43660	33.5	102	82.1	19.8	38.3	53.3	7.9	36.9			
LG SEEDS LG54C04	104 P500	Conv.	50.7	24.0	10.5	96	83.9	18.5	37.5	58.3	8.2	37.3	3418	35120	29.8	99	83.7	17.7	35.1	53.6	8.4	41.2			
LOCAL SEED LC9888 VT2PRIB	98 R500	1,2	62.1	22.2	12.6	97	82.8	18.5	37.6	54.2	8.7	38.6	3391	42078	25.5	98	82.5	16.5	33.7	51.4	8.8	42.8			
LOCAL SEED LC0657 SSXRIB	106 R500	1,2,3,4	54.0	27.8	13.8**	98	81.4	21.5	41.8	55.4	8.2	31.6	3256	43502	32.5	98	81.4	19.6	39.2	52.6	8.4	36.5			
LOCAL SEED LC0877 VT2PRIB	108 R500	1,2	46.3	28.7	12.4	96	82.6	21.5	42.2	57.3	8.0	32.3	3335	40033	31.2	97	82.2	21.2	39.1	54.5	8.2	35.7			
LOCAL SEED ZS1098 3330EZ	110 R500	1,2,4,6	45.2	28.6	11.9	96	80.2	23.0	44.3	55.3	8.2	28.7	3146	36800	33.8	96	78.0	24.1	44.6	50.7	8.4	29.8			
MASTERS CHOICE MCT-5454	104 C250	1,2,3,4,6	46.1	27.7	12.0	94	82.1	21.0	41.3	55.4	7.9	32.3	3209	40146	30.9	96	82.9	18.2	35.8	52.2	8.1	39.1			
AVERAGE			50.0	27.0	12.2	97	82.7	20.2	39.7	56.4	8.1	35.0	3363	40566	31.3	98	81.9	19.7	37.8	52.5	8.3	37.9			
HIGHEST			62.1	30.4	13.8	100	84.7	23.0	44.3	58.7	8.7	39.5	3555	43660	35.2	102	84.1	24.1	44.6	54.5	8.8	42.8			
LOWEST			43.6	22.2	10.5	93	80.2	18.5	36.2	54.2	7.9	28.7	3146	35120	25.5	96	78.0	16.5	33.7	50.1	7.9	29.8			
CV (%)			9.6	7.1	11.1	3	2.3	8.1	6.6	3.0	4.1	8.3	4	7	5.5	2	2.1	8.5	7.0	3.0	3.7	7.7			
LSD (5%)			4.0	1.3	1.1	2	1.3	1.1	1.8	1.2	0.2	2.0	112	2256	2.1	3	2.1	2.0	3.2	1.9	0.4	3.5			

2 Year Averages 2019 - 2018			TRIAL AVERAGE										Iosco - Late												
BRAND /HYBRID	RM TRT	TRAIT	YIELD			% QUALITY					MILK 2006			YIELD			% QUALITY					MILK 2006			
			%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/IT	MK/A	DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/IT
DAIRYLAND SEED HIDF-3099RA	99 P500	1,2,3,4	38.6	24.7	9.2	95	82.6	19.1	37.8	53.9	8.5	37.9	2239	20704	27.4	96	82.9	17.8	35.0	51.1	8.0	42.6			

¹ Missing data due to equipment malfunction

2019			TRIAL AVERAGE										Osceola - Late										Presque Isle - Late													
BRAND /HYBRID	RM TRT	TRAIT	YIELD			% QUALITY					MILK 2006			YIELD			% QUALITY					MILK 2006			YIELD			% QUALITY					MILK 2006			
			%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/IT	MK/A	DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/IT	MK/A	DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR
DAIRYLAND SEED HIDF-3099RA	99 P500	1,2,3,4	48.3	26.5	12.8	92	82.7	19.7	41.1	57.9	7.9	36.8	3378	43192	39.3	92	81.5	22.9	40.8	54.5	8.8	32.6	3287	33548	34.7	26.4	9.5	98	85.7	18.1	36.8	61.0	8.3	35.1	3563	33856
DAIRYLAND SEED DS-4318AMXT	104 P500	1,2,3,4	58.7	25.3	14.4 *	97	85.1	17.7	36.9	62.6	7.6	40.5	3547	51235	34.7	98	85.2	19.2	33.8	59.5	8.4	41.3	3557	34674	57.1	18.5	9.8	99	85.2	19.2	33.8	59.5	8.4	41.3	3557	34674
DAIRYLAND SEED DS-4318AMXT	99 Conv.	1,2,3,4	65.8	22.5	14.9**	96	84.8	18.7	39.9	62.0	7.7	36.3	3510	52132	39.4	98	84.9	17.5	37.7	59.9	7.8	38.7	3531	49991	39.4	28.4	11.3	100	82.9	20.8	40.3	57.5	8.0	31.6	3373	37930
LG SEEDS LG51C48V72PRO	101 P500	1,2	47.9	29.5	14.0 *	98	84.9	17.5	37.7	59.9	7.8	38.7	3531	49991	39.4	98	84.9	17.5	37.7	59.9	7.8	38.7	3531	49991	41.9	20.6	8.1	98	83.4	20.7	40.7	59.1	8.3	29.4	3314	26901
LG SEEDS LG54C04	104 P500	Conv.	59.4	21.5	12.8	92	84.7	17.3	36.8	62.2	8.1	41.2	3522	43338	41.9	98	83.4	20.7	40.7	59.1	8.3	29.4	3314	26901	46.9	23.1	10.7	98	82.3	18.9	38.4	54.0	9.0	36.1	3354	37519
LOCAL SEED LC9888 VT2PRIB	98 R500	1,2	77.2	18.0	14.6 *	97	83.6	20.3	40.7	57.3	8.4	36.9	3429	46637	46.9	98	83.6	20.3	40.7	57.3	8.4	36.9	3429	46637	49.2	25.5	12.6**	98	81.0	23.1	43.1	55.9	8.3	27.3	3229	38039
LOCAL SEED LC0657 SSXRIB	106 R500	1,2,3,4	58.9	25.4	14.9**	96	81.8	21.9	43.0	57.7	7.9	31.1	3282	48965	49.2	98	81.0	23.1	43.1	55.9	8.3	27.3	3229	38039	40.8	28.9	11.9 *	97	81.5	21.2	43.5	57.5	8.1	28.5	3247	35693
LOCAL SEED LC0877 VT2PRIB	108 R500	1,2	51.8	26.1	13.0	93	84.1	22.1	44.1	60.1	7.7	32.8	3423	44372	40.8	97	81.5	21.2	43.5	57.5	8.1	28.5	3247	35693	38.8	26.5	10.3	98	81.1	23.2	44.9	57.9	8.4	22.6	2995	29159
LOCAL SEED ZS1098 3330EZ	110 R500	1,2,4,6	51.6	25.6	13.5 *	95	81.6	21.8	43.4	57.5	7.9	33.8	3297	44441	38.8	98	81.1	23.2	44.9	57.9	8.4	22.6	2995	29159	42.6	26.1	11.1	91	80.9	23.9	45.8	55.3	7.8	23.4	3063	35569
MASTERS CHOICE MCT-5454	104 C250	1,2,3,4,6	49.7	26.0	12.9	96	82.5	21.1	42.4	58.7	7.9	34.2	3356	44723	42.6	91	80.9	23.9	45.8	55.3	7.8	23.4	3063	35569	43.1	25.0	10.5	97	82.5	21.2	40.8	57.2	8.3	30.8	3298	34289
AVERAGE			56.9	24.6	13.8	95	83.6	19.8	40.6	59.6	7.9	36.2	3428	46843	43.1	97	82.5	21.2	40.8	57.2	8.3	30.8	3298	34289	47.1	28.9	12.6	100	85.7	23.9	45.8	61.0	9.0	41.3	3563	38039
HIGHEST			77.2	29.5	14.9	98	85.1	22.1	44.1	62.6	8.4	41.2	3547	52132	57.1	100	85.7	23.9	45.8	61.0	9.0	41.3	3563	38039	34.7	18.5	8.1	91	80.9	18.1	33.8	54.0	7.8	22.6	2995	26901
LOWEST			47.9	26.0	12.8	92	81.6	17.3	36.8	57.3	7.6	31.1	3282	48965	34.7	91	80.9	18.1	33.8	54.0	7.8	22.6	2995	26901	7.8	8.4	9.8	3	2.2	6.5	6.1	2.7	4.5	8.3	4	6
CV (%)			8.3	7.1	8.7	4	2.6	7.4	5.9	3.2	4.1	6.5	4	7	7.8	4	2.2	6.5	6.1	2.7	4.5	8.3	4	6												
LSD (5%)			5.7	2.1	1.5	5	2.7	1.8	2.9	2.3	0.4	2.8	160	3845	4.0	4	2.1	1.7	3.0	1.9	0.5	3.1	163	2512												

2 Year Averages 2019 - 2018			TRIAL AVERAGE										Osceola - Late										Presque Isle - Late												
BRAND /HYBRID	RM TRT	TRAIT	YIELD			% QUALITY					MILK 2006			YIELD			% QUALITY					MILK 2006			YIELD			% QUALITY					MILK 2006		
			%DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/IT	MK/A	DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP	STR	MK/IT	MK/A	DM	GT/A	DT/A	%STD	IVD	ADF	NDF	NDFD	CP
DAIRYLAND SEED HIDF-3099RA	99 P500	1,2,3,4	41.3	26.7	11.0	94	83.5	17.9	37.3	55.6	8.0	39.6	3439	37692	36.0	96	81.5	21.7	41.1	54.9	9.5	31.5	3279	24422											

TABLE 6E - Continued from page 33. BRANCH, LENAWEE & WOOD (OHIO) COUNTY SILAGE TRIALS - EARLY (110 Day and Earlier) ZONE 1

2 Year Averages 2019 - 2018										Early - TRIAL AVERAGE										Branch - Early									
BRAND / HYBRID	RM	TRT	TRAIT	YIELD			% QUALITY			MILK 2006	YIELD			% QUALITY			MILK 2006	YIELD			% QUALITY			MILK 2006					
				%DM	GT/A	DT/A	%STD	IVD	ADF		NDF	NDFD	CP	STR	MK/IT	MK/A		%DM	GT/A	DT/A	%STD	IVD	ADF		NDF	NDFD	CP	STR	MK/IT
DAIRYLAND SEED HIDF-3407RA	107	P500	1,2,3,4	41.9	24.7	10.4*	88	82.0	18.9	37.5	52.7	7.1	40.2	3341	35096	44.8	25.9	11.8**	94	81.6	18.6	37.2	51.8	7.3	40.8	3338	39906		
DAIRYLAND SEED HIDF-3808RA	108	P500	1,2,3,4	39.3	27.8	10.9**	95	81.6	21.7	39.6	52.8	6.9	37.0	3255	35765	39.9	29.5	11.7*	94	81.9	20.1	37.9	52.1	7.4	39.4	3294	38575		
DYNAGRO D49SS70	109	P500	1,2,3,4	39.9	24.8	9.7	94	82.1	18.4	35.4	51.2	7.4	42.7	3376	31844	41.3	26.5	10.7	96	81.5	17.4	34.4	49.5	7.8	43.9	3375	33800		
GOLDEN HARVEST G09A86-3110	109	C500	1,2,4,6	44.0	23.1	10.2	89	82.2	18.7	36.4	52.4	7.5	42.2	3336	33961	44.8	24.3	10.9	93	82.6	18.1	36.1	51.8	7.8	43.2	3356	36505		
GOLDEN HARVEST G09Y24-3220A	109	C500	1,2,4,6,16	43.5	23.2	10.2	88	82.2	19.0	36.9	53.8	7.2	41.1	3330	34195	45.4	23.5	10.8	89	81.6	18.8	36.2	53.4	7.8	41.6	3290	36294		
MASTERS CHOICE MCT-5454	104	C250	1,2,3,4,6	46.6	20.0	9.3	82	83.5	18.6	35.2	53.1	7.8	44.8	3414	32243	46.8	21.9	10.2	91	83.7	18.0	33.8	51.7	8.1	45.6	3438	35079		
MASTERS CHOICE MCT-5663	106	C250	1	44.3	22.0	9.4	85	83.9	17.7	35.0	54.3	7.3	43.7	3450	31504	43.1	24.3	10.2	93	83.5	18.5	36.1	53.6	7.6	43.3	3406	32738		
AVERAGE				42.8	23.7	10.0	89	82.5	19.0	36.6	52.9	7.3	41.7	3357	33515	43.7	25.1	10.9	93	82.3	18.5	35.9	52.0	7.7	42.6	3357	36128		
HIGHEST				46.6	27.8	10.9	95	83.9	21.7	39.6	54.3	7.8	44.8	3450	35765	46.8	29.5	11.8	96	83.7	20.1	37.9	53.6	8.1	45.6	3438	39906		
LOWEST				39.3	20.0	9.3	82	81.6	17.7	35.0	51.2	6.9	37.0	3255	31504	39.9	21.9	10.2	89	81.5	17.4	33.8	49.5	7.3	39.4	3290	32738		
CV (%)				7.7	7.8	9.3	8	2.7	9.5	8.0	3.7	5.5	7.6	4	8	6.9	6.6	6.9	6	2.6	7.7	6.7	4.1	4.6	6.9	4	6		
LSD (5%)				2.1	1.0	0.6	4	1.3	1.0	1.6	1.2	0.2	1.9	78	1681	2.6	1.4	0.7	4	1.8	1.2	1.9	1.8	0.3	2.5	106	1935		

2 Year Averages 2019 - 2018										Lenawee - Early										Wood - Early									
BRAND / HYBRID	RM	TRT	TRAIT	YIELD			% QUALITY			MILK 2006	YIELD			% QUALITY			MILK 2006	YIELD			% QUALITY			MILK 2006					
				%DM	GT/A	DT/A	%STD	IVD	ADF		NDF	NDFD	CP	STR	MK/IT	MK/A		%DM	GT/A	DT/A	%STD	IVD	ADF		NDF	NDFD	CP	STR	MK/IT
DAIRYLAND SEED HIDF-3407RA	107	P500	1,2,3,4	39.0	23.6	9.1	83	82.4	19.3	37.9	53.7	6.9	39.5	3343	30287	38.8	26.2	10.0**	96	81.4	23.3	41.4	53.6	6.4	34.7	3215	32954		
DAIRYLAND SEED HIDF-3808RA	108	P500	1,2,3,4	38.5	23.1	8.7	92	82.8	19.5	36.5	52.9	7.0	41.5	3377	29889	43.1	21.9	9.5*	85	81.8	19.2	36.7	53.0	7.3	41.3	3317	31417		
DYNAGRO D49SS70	109	P500	1,2,3,4	41.5	23.0	9.5*	87	82.8	19.2	37.6	54.2	6.7	40.6	3370	32096	46.5	18.2	8.4	74	83.4	19.3	36.5	54.6	7.6	44.0	3390	29406		
GOLDEN HARVEST G09A86-3110	109	C500	1,2,4,6,16	45.5	19.7	8.7	78	84.4	16.8	33.9	55.0	7.1	44.1	3494	30271	41.8	22.2	9.1	85	82.7	19.5	37.2	53.8	7.0	40.8	3358	30903		
GOLDEN HARVEST G09Y24-3220A	109	C500	1,2,4,6,16	46.5	26.2	10.0	96	84.4	23.3	41.4	55.0	7.6	44.1	3494	32954	46.5	26.2	10.0	96	84.4	23.3	41.4	55.0	7.6	44.1	3494	32954		
MASTERS CHOICE MCT-5454	104	C250	1,2,3,4,6	5.4	5.3	7.3	9	2.3	8.5	7.7	2.5	5.2	6.4	4	6	2.3	0.9	0.6	6	1.7	1.4	2.4	1.2	0.3	2.5	110	1810		
MASTERS CHOICE MCT-5663	106	C250	1	2.3	0.9	0.6	6	1.7	1.4	2.4	1.2	0.3	2.5	110	1810	2.3	0.9	0.6	6	1.7	1.4	2.4	1.2	0.3	2.5	110	1810		
AVERAGE																													
HIGHEST																													
LOWEST																													
CV (%)																													
LSD (5%)																													

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

TAR SPOT OF CORN

*Martin Chilvers, Associate Professor,
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Tar spot of corn is native to Central and South America and was first described back in 1904. Tar spot was first found in the U.S. in Indiana and Illinois in 2015, and was confirmed in Allegan County, Michigan in 2016. 2018 saw a widespread epidemic of corn tar spot across the western side of the state with losses of 50 bu/A in particular fields. The fungus (*Phyllachora maydis*) responsible for disease is able to overwinter on corn residue and release spores to initiate new infections. The 2019 season saw a late onset of disease as compared to 2018. However, there was continued rapid spread of the disease to a number of new counties across the Midwest. In Michigan, disease was confirmed late in the season across many counties in the thumb. Surprisingly, tar spot was also confirmed in a large number of counties in Iowa all the way to the west side of that state. The spread of inoculum sets up the potential for significant yield losses if conditions for disease are favorable in the future, as the fungus that causes the disease can survive on infested corn residue.

In terms of identifying tar spot, it is relatively distinct with a hard black raised spot (1/16 – 3/4 inch) that will not rub off the leaf surface. Tar spot lesions form on the top side of the leaf but will often protrude through the bottom side of the leaf. There was some confusion of insect frass (bug poop) for tar spot, however these are easy to distinguish as frass will dissolve and wipe off the leaf with some water, and tar spot will not. Late season rust pustules can also take on a dark color and look similar to tar spot, but upon close inspection rust pustules erupt through the leaf leaving a torn margin, and rust spores will wipe off the leaf onto your finger. If in doubt send a sample into the MSU Plant and Pest Diagnostic Services <https://pestid.msu.edu/>.

Tar spot has the ability to progress rapidly within a field. It appears that once a plant is infected it takes about 10 days to 2 weeks for the tar spot structure to develop and new spores to be released. Conditions that favor disease include moderate temperatures and leaf moisture. Irrigated fields are at particular risk to disease due to increased number of leaf wetness events. We have noted higher levels of disease development in fields frequently irrigated vs those irrigated less frequently, and in fields irrigated at night vs during the day, presumably due to a longer leaf wetness period. Tillage and crop rotation offers little protection from the disease, as inoculum can move in from surrounding fields.

Managing disease should start with selection of the most resistant hybrids available; however, no hybrid is completely resistant, so it will be important to talk with your seed dealer in selecting the most resistant hybrids available. It should also be understood that even using a partially resistant hybrid it is still possible to incur losses if conditions favor the disease. The same is true of fungicide use. A fungicide applied at the most optimal timing will reduce disease and protect leaves for a couple of weeks, but it is not a silver bullet. To date the best fungicide timings appear to be those at reproductive stages, and some producers have reported positive results. We are working with colleagues to screen fungicides for efficacy, develop disease prediction models and optimize fungicide application timing.

This work was supported in part by the Corn Marketing Program of Michigan, Project GREEN, and the Foundation for Food and Agriculture Research.

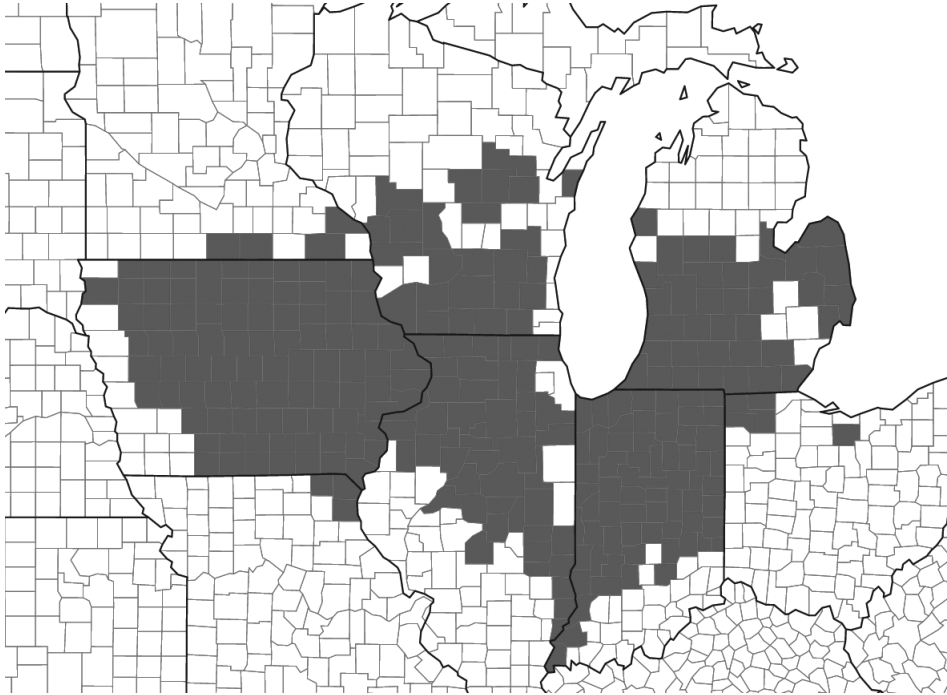


Figure: Tar spot confirmations in 2019. <https://corn.ipmpipe.org/tarspot/>

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THANK YOU TO OUR FARM COOPERATORS:

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