

# 2015 Michigan State Wheat Performance Trials

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Weather played a significant role in the outcomes of 2015 wheat production in Michigan. Late-harvested soybeans and frequent rainfall delayed planting across much of the state. However, the cool and extended growing season provided optimal growing conditions, especially during grain fill. Although some areas experienced drier than normal conditions, an abundance of moisture was present throughout the season, particularly in southern and central Michigan. Ideal conditions allowed for most acres to be harvested during the week of July 20<sup>th</sup>. A shorter harvest window has led to sound grain and generally high falling numbers. In contrast to other states in the eastern soft wheat region, Michigan has experienced average to significantly higher test weights and yield.

Multiple diseases impacted Michigan wheat in 2015. Leaf blotch diseases caused by *Septoria* and *Stagonospora* pathogens were widespread across the state. Early in the season, powdery mildew was identified in many fields but in most cases did not develop to yield-limiting levels. Many southern Michigan fields showed symptoms of Soilborne Mosaic Virus. Both stripe rust and leaf rust pathogens were active across the state after flowering. High moisture and humidity favored the development of Fusarium head blight in most areas. Although, severe Fhb infections did occur in some areas, levels of DON reflected in tested grain was lower than anticipated given the disease-promoting conditions.

## **Choosing Varieties**

Variety selection is best made using at least three years of data. Varieties selected using data across all locations will likely perform well under a wide range of conditions. Although, performance of a given variety will vary based on testing location. In selecting varieties for a specific location, it is important to identify varieties that perform well near the location where the variety will be grown. Table 4 provides information on which varieties are top performers in each of the five trial locations in 2012 through 2015. Selection and planting of two or more varieties is recommended. As an example, planting varieties that differ in flowering date can allow for staggering of management applications, specifically, fungicides to control Fusarium head blight.

**Disclaimer: MSU makes no endorsement of any wheat variety or brand.**

## **Experimental**

The 2015 State Wheat Performance Trial entries were planted at seven sites in 6 counties: Huron, Ingham (3), Lenawee, Sanilac, and Tuscola. Appendix A (below) presents information on each of these sites. Each plot contained 6 rows with 7.5" row spacing and was planted to a length of 18 feet. Plots were trimmed to a length of 12 feet long in the spring for harvesting purposes. Sites were designed as Alpha Lattice with four replications. All seed was treated, but the chemicals and rates used varied according to the preferences of the originating organization. Seeding rates per linear foot of row were standardized to the rate that would equate with a stand of 2.0 million seeds per acre in a solid stand planted in 7.5" rows. Fall fertilizer application varied with cooperators practice. Spring nitrogen was applied as urea (90 lbs/acre actual N) at green-up and Affinity BroadSpec was used for weed control at all sites.

All sites were coordinated under high management with the exception of an additional conventionally managed trial at Ingham county. Under high management, an additional 30 pounds of nitrogen was applied using streamer bars and 28% N. Quilt was applied at Feekes 8.5 - 9 to control lower-canopy and early-season diseases. Prosaro was applied to control late season fungal diseases. The timing of the Prosaro application coincided with the average flowering date of the trial location.

All plots within a location were harvested on a single day. Yield was calculated using the entire area of the plot including the wheel tracks between plots leading to an underestimation of yield. For data reported on a 0-9 scale 0 is the best possible score.

Four of our experimental sites are on private farmland. We are extremely grateful to those growers for accommodating our work and all of the associated inconveniences. Funding for the high-management trial inputs was provided by the Michigan Wheat Program. Questions and comments regarding the research

reported here should be directed to Eric Olson at [eolson@msu.edu](mailto:eolson@msu.edu) or (517) 353-0142. This report and previous reports, may also be accessed through the Web at <http://www.varietrials.msu.edu/wheat>.

### **Multi-Year Performance Summary**

Tables 1 through 7 summarize performance of the trial. The full trial included 96 entries (32 of which were experimental lines) from 15 organizations, including Michigan State University, and data analyses were conducted using all of these entries. For ease of viewing, two versions of the report are available. The “commercial only” version (available online and in the “Michigan Farm News” publication) includes the data of 64 commercially available varieties from 13 organizations only. The “including experimentals” version (online only) includes all commercial and experimental lines. Attached to this narrative is a list of the names and contact information for those organizations. Each row in these tables has data for a single entry. The columns contain averages for a given trait and time period. Data for all of the entries in this trial are not presented here. However, the averages and statistical parameters in this report are based on the entire set of evaluated materials. **Comparisons among entries are only valid within a column.** Tables 1, 2, 3, 7 and 8 are sorted first by entry grain color, and then in descending order by yield for 2015. In some instances (e.g. yield), data columns to the right of the 2015 data columns are multi-year averages. Only data for entries included in all of the relevant years’ tests are found here. Not all entries have been tested in all years, so the tables have several blank cells. See the section titled ‘Experimental’ for details on how the trials were conducted and for more detail on what the data in each column represents.

At the bottom of most columns in the tables is the trial average (mean), LSD (least significant difference), and CV (coefficient of variation) for data in that column. LSD values vary among traits and data sets (combinations of sites and years). Differences between the means for two entries that are greater than the LSD for that column are very likely to reflect a genuine difference between the two varieties. If the difference between two means is smaller than the LSD for that column, one should conclude that there is **no evidence that those entries are different for that trait** in the years and sites considered.

**Table 1** contains data for yield, and test weight. This data was acquired electronically on the plot combine at the time of harvest. Yield data is standardized to 13.5% moisture. The 2015 yield data contains the multi-site yield averages of only the high management sites and does not include the single site of conventionally managed yield data in Ingham County. The conventionally managed single site data can be found on table 5 under the “Ingham conventionally managed” columns. Table 1 also contains grain color, chaff color, and degree of awnedness. For degree of awnedness, “Awnless” indicates no awns or awns only present at the tip of the spike, “Awnletted” (short awns on the spike), or “Awned” (long awns on the entire spike).

Table 1 also contains data on resistance to Fusarium Head Blight (FHB, scab) and the associated mycotoxin, deoxynivalenol (DON, VOM). Scab data were obtained from heavy disease pressure in an inoculated scab screening nursery. FHB infected grain is spread to provide inoculum and artificial misting provides disease-promoting conditions throughout the entire flowering period.

### **FHB Resistance Traits**

Severity: The average percent of infected spikelets in each head.

Incidence: The percent of all spikes in a plot showing infection.

FHB index: The overall infection considering severity and incidence.

DON: Levels of mycotoxin (ppm) present in grain. DON data is from the 2014 and prior crop years.

Levels of DON Levels of DON mycotoxin and severity are the most reliable traits to be used in selecting FHB-resistant varieties.

**Table 2** contains data for flowering date, plant height, grain moisture at harvest, lodging, pre-harvest sprouting, and winter injury.

The flowering date indicates the average number of days past January 1st that a given entry reached the point where ½ of its heads were flowering. Plant height is reported as the distance in inches from the ground to the tip of average heads in a plot. Lodging is scored on 0 – 9 scale, where 0 represents all plants fully erect and 9 indicates the entire plot is lodged completely on the ground. Winter injury scores are from the 2014 growing season. The data on Pre-Harvest Sprouting (PHS) were generated experimentally. Spikes from two trial replicates were harvested at physiological maturity, after-ripened in the greenhouse

for five days, periodically misted for three days to simulate rainfall, and placed at 100% humidity for three days. Three spikes were rated for visual sprouting. PHS is reported as extent of visual sprouting on a 0 to 9 scale with 0 indicating no sprouting and 9 indicating extensive sprouting of all spikelets.

**Table 3** contains data for powdery mildew, leaf blotch, cephalosporium stripe, wheat streak mosaic virus, barley yellow dwarf virus, leaf rust, stripe rust, and percent black point (tip) on the grain.

Disease scores are recorded as “0 = no visual symptoms of disease present” and “9 = severe visual symptoms of the disease”. Powdery mildew scores are based on observations of the entire plant including the flag leaf. The causal organism(s) of the leaf blotching were not identified, but were likely a combination of *Septoria tritici* and *Stagonospora nodorum*. Cephalosporium stripe is caused by *Cephalosporium gramineum* and causes distinct yellow stripes that may contain thin, brown streaks on leaf blades, sheaths and stems. Cephalosporium scores are based on observations of the entire plant including the flag leaf. Wheat streak mosaic virus and barley yellow dwarf virus were not observed in the 2015 growing season and reported scores are from the 2014 and 2013 growing seasons respectively. Stripe rust and leaf rust scores are based primarily on infection observations on the flag leaf. Stripe rust scores are from 2013 growing season and earlier. Black point is reported on a percentage basis (percent of seeds with visible black point). Black point is the discoloration of the embryo (germ) end and surrounding areas of the wheat kernel. The embryo tip shows a black to brown discoloration that may extend into the crease of the kernel. Visual observations consisted of 500 seed lots from one rep at each location observed. The data presented is the average percent of kernels discolored from the 2014 harvest season and earlier.

### Single Site Yield Performance Summary

**Table 4** contains 2015 yield (adjusted to 13.5% moisture), as well as multi-year means, for entries in each of the five sites harvested for yield in 2015. Data on performance across multiple years is provided where available. Each row in the table represents a single entry in the test. It is recommended that multiple years of data in each location be used in variety selection decisions. Table 4 is sorted first by organization and then by variety.

### High Management vs. Conventional Management Performance

**Table 5** provides a comparison of variety performance under intensive management and conventional management practices. Data on yield, test weight, grain moisture at harvest and lodging are provided from conventional management and high management trials at Ingham County. The Conventional vs. High Management Differences portion of the table provides the difference between high management and conventional management.

### Milling and Baking Quality

**Tables 6 & 7** contains data for milling and baking quality. Quality data are from the 2014 harvest season and prior. Data were generated by the USDA Eastern Soft Wheat Quality Laboratory in Wooster, Ohio on grain harvested from the Michigan State Variety trial each year. Flour yield is the ratio of the weight of extractable flour to the weight of milled grain, expressed as a percentage. Percent protein in flour is adjusted at 14% moisture. Softness equivalent percent is the softness of the flour, with higher values indicating softer grained wheat. For cookie diameter, a larger diameter is better. Whole grain protein (%) and whole grain hardness are being reported with 0-100, and higher values indicating harder wheat. The quality lab test weight is not identical to the test weight at harvest due to grain drying and grain cleaning prior to quality laboratory test weight evaluation. Solvent Retention Capacity (SRC) can be conducted on flour using several different solvents and reflects different characteristics of flour quality. Water SRC is correlated to and intended to predict Farinograph water absorption. Sucrose SRC is a measure of pentosan content, which can strongly affect water absorption in baked products. Soft wheat flour for cookies typically have a target of 95% or less when used by the US baking industry for biscuits and crackers. Sodium carbonate SRC increases as starch damage due to milling increases. Normal values for good milling soft varieties are 68% or less. Lactic acid measures gluten strength with “weak” soft varieties having values below 85% and strong gluten soft varieties having values, typically, above 105% or 110%.

# 2015 Michigan State University Wheat Performance Trials

## Appendix A. Trial Site Descriptions for 2015 MSU Wheat Performance Trials.

	HURON COUNTY	INGHAM COUNTY			LENAWEE COUNTY	SANILAC COUNTY	TUSCOLA COUNTY
COOPERATOR	Darwin Sneller	Michigan State University			Woods Seed Farm	JGDM Farms	Stuart Bierlein
	HIGH MANAGEMENT	CONV. MANAGEMENT	HIGH MANAGEMENT	SCAB NURSERY	HIGH MANAGEMENT	HIGH MANAGEMENT	HIGH MANAGEMENT
NEAREST CITY	Sebewaing	Mason	Mason	Lansing	Britton	Deckerville	Richville
PLANTING DATE	Oct. 26, 2014	Sept. 26, 2014	Sept. 26, 2014	Oct. 17, 2014	Oct. 25, 2014	Oct. 8, 2014	Sept. 29, 2014
HARVEST DATE	July 23, 2015	July 22, 2015	July 22, 2015	N/A	July 20, 2015	July 24, 2015	July 21, 2015
SOIL TYPE	Kilmanagh loam, 0 to 1 percent slopes	Capac loam, 0 to 3 percent slopes	Capac loam, 0 to 3 percent slopes	Capac loam, 0 to 3 percent slopes and Colwood-Brookston loam, 0 to 2 percent slopes	Lenawee silty clay loam, 0 to 3 percent slopes	Parkhill loam, 0 to 1 percent slopes	Tappan-Londo loam, 0-2 percent slopes
PRE-PLANT FERTILIZER	250# 7-24-24 + S + B	150# 6-24-24	150# 6-24-24	50# 46-0-0	300# 9-23-30	225# 9-16-24 + 8.8%S	300# 13-8-24 +7% S + 0.83% Zn + 0.47% Mn + 0.13% Cu +0.13% B
COMMENTS		Slight Spring Water Damage. Heavy Cepholspore Stripe and Leaf Blotch Pressure. Moderate FHB. Light Leaf Rust Pressure.	Slight Spring Water Damage. Heavy Cepholspore Stripe and Leaf Blotch Pressure. Moderate FHB. Light Leaf Rust Pressure.	Inoculated / Misted Fusarium Head Blight Screening Nursery.	Moderate FHB. Moderate Lodging.	Slight Spring Water Damage.	
AVERAGE YIELD (BUSHELS / ACRE)	101.5	69.5	83.8	N / A	82.3	112.4	107.6
AVERAGE TEST WEIGHT (LBS. / BUSHEL)	59.4	54.8	56.4	N / A	56.1	58.9	60.0
AVERAGE PERCENT GRAIN MOISTURE AT HARVEST	15.8	13.6	12.9	N / A	16.4	16.2	13.8
2015 DATA RECORDED (NUMBER OF REPS)	LODGE (4)	FD (4); CEPH (4); LEAF_B (4); PM (4); L_RUST (3); LODGE (4)	FD (4); CEPH (4); LEAF_B (4); LODGE (4)	%INC.(4); %SEV. (4); INDEX (4)	PL_HT (4);		FD (4); PL_HT (4)

\*DATA: **FD** – Flowering Date (Days Past Jan. 01), **PL\_HT** - Plant Height in Inches, **LEAF\_B** - Leaf Blotch Score (0-9), **CEPH** - Cephalosporium Stripe Score (0-9), **LODGE** - Lodging Score (0-9), **LRUST** - Leaf Rust Score (0-9), **PM** - Powdery Mildew Score (0-9), **%INC** - Percent Incidence of FHB, **%SEV** - Percent of Severity of FHB, **INDEX** - Product of the Incidence X Severity / 100

\*\* SCORING INFORMATION: Score of 0 = Best Rating - Score of 9 = Poor Rating



### 2015 Michigan State University Wheat Performance Trials (Including Experimentals)

Multi-year data are the most informative.

**Table 1 : Multi-Year Performance Summary (Note: Tables sorted by 2015 Yield, red wheats grouped before white)**

MSU makes no endorsement of any variety or brand.

Name	Grain Color	Chaff Color	Awns	Yield: Bushels/Acre (Adjusted to 13.5% Moisture) Multi-Year Averages				Test Weight: lbs/Bushel Multi-Year Averages				Incidence (% of spikes)			FHB (Scab) : Field Observation Severity (% within spikes)			Index (% overall infection)			DON (ppm) in grain Multi-Year Averages				Organization				
				2 YR	3 YR	4 YR	2015	2014-15	2013-15	2012-15	2015	2014-15	2013-15	2012-15	2 YR	3 YR	2015	2014-15	2013-15	2 YR	3 YR	2015	2014-15	2013-15		2014	2 YR	3 YR	4 YR
				2015	2014-15	2013-15	2012-15	2015	2014-15	2013-15	2012-15	2015	2014-15	2013-15	2015	2014-15	2013-15	2015	2014-15	2013-15	2015	2014-15	2013-15	2014		2013-14	2012-14	2011-14	
9522	Red	White	Awned	94.0	-----	-----	-----	56.9	-----	-----	-----	78.8	-----	-----	16.8	-----	-----	13.4	-----	-----	-----	-----	-----	-----	-----	-----	Dyna-Gro Seed		
L-241	Red	White	Awnless	94.0	92.0	-----	-----	59.9	60.6	-----	-----	65.0	62.5	-----	19.7	17.9	-----	12.7	11.8	-----	1.7	-----	-----	-----	-----	Irrer Seed Farm			
RS 9XP011	Red	White	Awned	93.9	-----	-----	-----	58.4	-----	-----	-----	96.3	-----	-----	16.0	-----	-----	15.3	-----	-----	-----	-----	-----	-----	-----	Rupp Seeds, Inc			
SY 007	Red	White	Awned	93.8	-----	-----	-----	58.1	-----	-----	-----	81.3	-----	-----	29.1	-----	-----	22.3	-----	-----	-----	-----	-----	-----	-----	Sygenta Cereals / AgriPro			
9223	Red	White	Awnless	93.8	95.0	93.3	93.5	56.0	57.3	57.3	57.7	81.3	83.2	64.3	26.2	22.7	30.5	20.7	18.4	16.5	5.2	10.5	7.1	-----	-----	Dyna-Gro Seed			
Diener 512	Red	White	Awnless	93.8	95.4	93.1	-----	56.0	57.1	57.1	-----	82.5	77.5	55.2	27.0	29.3	28.2	22.3	23.3	15.5	7.0	10.8	-----	-----	-----	Bio Town Seeds			
MCIA 7002012	Red	White	Awnless	93.6	91.9	89.9	-----	57.1	58.3	58.1	-----	83.8	78.2	52.1	21.3	20.2	21.8	18.1	16.1	10.7	6.9	7.9	-----	-----	-----	Michigan Crop Improvement Association			
Pioneer Brand 25R25	Red	White	Awned	93.5	-----	-----	-----	56.4	-----	-----	-----	83.8	-----	-----	13.9	-----	-----	12.0	-----	-----	-----	-----	-----	-----	-----	DuPont Pioneer			
L-334	Red	White	Awnless	93.3	93.5	-----	-----	58.0	59.4	-----	-----	70.0	58.2	-----	16.2	17.7	-----	11.5	10.3	-----	3.1	-----	-----	-----	-----	Irrer Seed Farm			
DF EX R J-1	Red	White	Awnless	93.1	-----	-----	-----	56.5	-----	-----	-----	85.0	-----	-----	24.1	-----	-----	20.3	-----	-----	-----	-----	-----	-----	-----	D.F. Seeds, Inc.			
DF EX R J-2	Red	White	Awned	93.1	-----	-----	-----	59.6	-----	-----	-----	77.5	-----	-----	12.3	-----	-----	9.6	-----	-----	-----	-----	-----	-----	-----	D.F. Seeds, Inc.			
MCIA EXP A	Red	White	Awnless	92.9	93.1	92.4	-----	56.6	57.9	57.8	-----	96.3	85.7	65.3	37.9	41.9	40.8	36.8	35.9	26.4	8.3	9.6	-----	-----	-----	Michigan Crop Improvement Association			
DF 109R	Red	White	Awnless	92.7	93.7	93.1	93.3	55.5	56.6	56.9	57.3	77.5	71.3	61.0	29.8	27.3	31.5	22.7	19.3	18.9	4.3	10.7	7.2	-----	-----	D.F. Seeds, Inc.			
DF 105R	Red	White	Awned	92.6	92.8	90.3	91.2	57.0	57.8	57.5	57.9	97.5	87.5	69.9	20.1	25.0	24.0	19.7	21.5	17.3	5.2	11.4	7.6	6.0	-----	D.F. Seeds, Inc.			
Hilliard	Red	White	Awned	92.6	-----	-----	-----	58.6	-----	-----	-----	80.0	-----	-----	28.0	-----	-----	22.4	-----	-----	-----	-----	-----	-----	-----	Virginia Crop Improvement Association / VA Tec			
Sienna	Red	White	Awnless	92.5	92.6	91.7	-----	56.7	57.9	57.7	-----	86.3	76.9	55.6	26.1	35.7	42.5	22.3	26.6	21.1	7.0	10.0	-----	-----	-----	D.F. Seeds, Inc.			
HS EX7	Red	White	Awnletted	92.4	-----	-----	-----	59.0	-----	-----	-----	75.0	-----	-----	16.0	-----	-----	12.3	-----	-----	-----	-----	-----	-----	-----	Harrington Seeds, Inc.			
MCIA EXP 02444	Red	White	Awnless	92.4	-----	-----	-----	57.3	-----	-----	-----	91.3	-----	-----	16.4	-----	-----	15.0	-----	-----	-----	-----	-----	-----	-----	Michigan Crop Improvement Association			
MCIA Red Devil	Red	White	Awned	92.4	90.7	88.8	89.0	59.4	60.0	59.4	59.7	85.0	88.8	64.7	30.3	30.4	30.6	26.1	27.0	20.7	8.3	12.2	8.2	6.3	-----	Michigan Crop Improvement Association			
HS 284R	Red	White	Awnless	92.3	92.5	92.0	-----	57.8	58.7	58.3	-----	76.3	74.4	52.9	33.4	30.5	32.4	25.5	22.7	16.7	6.6	9.3	-----	-----	-----	Harrington Seeds, Inc.			
MCIA Rocket	Red	White	Awnless	92.2	-----	-----	-----	56.5	-----	-----	-----	91.3	-----	-----	32.5	-----	-----	30.1	-----	-----	-----	-----	-----	-----	-----	Michigan Crop Improvement Association			
RS 907	Red	White	Awned	91.9	91.3	91.1	-----	58.3	59.4	59.3	-----	88.8	76.9	64.6	16.1	16.8	22.2	14.5	12.8	13.7	3.4	5.7	-----	-----	-----	Rupp Seeds, Inc			
L-232	Red	White	Awnletted	91.8	-----	-----	-----	60.5	-----	-----	-----	83.8	-----	-----	21.5	-----	-----	18.3	-----	-----	-----	-----	-----	-----	-----	Irrer Seed Farm			
SY 547	Red	White	Awnletted	91.3	-----	-----	-----	58.0	-----	-----	-----	82.5	-----	-----	32.8	-----	-----	27.6	-----	-----	-----	-----	-----	-----	-----	Sygenta Cereals / AgriPro			
MCIA 2014034	Red	White	Awnless	91.2	-----	-----	-----	56.3	-----	-----	-----	96.3	-----	-----	34.6	-----	-----	33.4	-----	-----	-----	-----	-----	-----	-----	Michigan Crop Improvement Association			
LCS News	Red	White	Awnletted	91.1	90.6	90.0	-----	58.0	59.0	58.9	-----	92.5	80.0	63.4	31.2	38.8	40.6	29.1	30.6	25.1	6.5	8.7	-----	-----	-----	Irrer Seed Farm			
F0036R	Red	White	Awnless	90.9	85.8	85.1	-----	55.3	57.1	57.0	-----	86.3	79.4	64.0	35.5	32.3	37.6	30.8	25.8	22.2	8.6	12.7	-----	-----	-----	Michigan State University			
L-264	Red	White	Awnletted	90.9	-----	-----	-----	58.1	-----	-----	-----	80.0	-----	-----	22.7	-----	-----	18.4	-----	-----	-----	-----	-----	-----	-----	Irrer Seed Farm			
VA11W-106	Red	White	Awned	90.7	-----	-----	-----	59.0	-----	-----	-----	88.8	-----	-----	28.1	-----	-----	25.3	-----	-----	-----	-----	-----	-----	-----	Virginia Crop Improvement Association / VA Tec			
Hopewell	Red	Bronze	Awnletted	89.8	88.1	86.6	86.8	57.3	58.4	58.4	58.8	90.0	81.3	63.5	39.2	40.7	40.8	34.6	33.2	25.7	6.5	13.0	8.8	6.9	-----	Michigan Crop Improvement Association			
DF 113R	Red	White	Awnless	89.0	92.8	-----	-----	59.0	59.8	-----	-----	93.8	83.2	-----	34.3	40.2	-----	31.6	33.1	-----	5.6	-----	-----	-----	-----	D.F. Seeds, Inc.			

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**Table 1 : Multi-Year Performance Summary** (Note: Tables sorted by 2015 Yield, red wheats grouped before white)

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				2 YR	3 YR	4 YR	2015	2014-15	2013-15	2012-15	2 YR	3 YR	4 YR	2015	2014-15	2013-15	2 YR	3 YR	2 YR	3 YR	2014	2013-14	2012-14	2011-14	
				2015	2014-15	2013-15	2012-15	2015	2014-15	2013-15	2012-15	2015	2014-15	2013-15	2015	2014-15	2013-15	2015	2014-15	2013-15	2014	2013-14	2012-14	2011-14	
MCIA Flame	Red	White	Awnletted	88.7	-----	-----	-----	58.4	-----	-----	-----	87.5	-----	-----	22.8	-----	-----	20.4	-----	-----	-----	-----	-----	-----	Michigan Crop Improvement Association
Shirley	Red	White	Awnletted	88.0	83.7	83.1	85.6	54.7	56.2	56.3	56.9	96.3	83.2	70.6	40.3	36.6	38.6	39.1	31.6	27.6	10.0	15.3	10.3	8.2	Dyna-Gro Seed
MCIA EXP 05247	Red	White	Awnletted	87.9	-----	-----	-----	57.5	-----	-----	-----	86.3	-----	-----	26.5	-----	-----	22.9	-----	-----	-----	-----	-----	-----	Michigan Crop Improvement Association
L-347	Red	White	Awnletted	87.3	-----	-----	-----	60.2	-----	-----	-----	80.0	-----	-----	15.8	-----	-----	12.7	-----	-----	-----	-----	-----	-----	Irrer Seed Farm
Red Ruby	Red	White	Awned	86.5	86.4	84.2	84.7	57.7	58.7	58.4	58.9	98.8	94.4	78.6	32.9	36.3	41.1	32.6	34.4	30.9	9.8	16.5	11.0	8.5	Michigan Crop Improvement Association
F2014R	Red	White	Awnletted	85.8	-----	-----	-----	57.2	-----	-----	-----	97.5	-----	-----	31.2	-----	-----	30.4	-----	-----	-----	-----	-----	-----	Michigan State University
9242W	White	White	Awnless	98.6	93.6	89.2	89.2	58.0	58.7	58.2	58.7	92.5	85.0	56.7	21.9	27.0	22.6	20.7	22.5	15.0	9.0	9.9	6.7	5.1	Dyna-Gro Seed
Jupiter	White	Bronze	Awnletted	97.0	92.3	89.5	88.7	57.0	57.7	57.3	57.5	97.5	81.3	66.3	33.5	34.5	34.7	32.7	27.8	21.9	7.2	9.3	6.5	5.4	Michigan Crop Improvement Association
Ambassador	White	White	Awnletted	95.1	92.3	89.4	89.3	55.3	56.2	55.9	56.5	96.3	94.4	75.1	50.4	54.7	56.7	48.2	51.6	42.3	13.8	24.0	16.3	12.8	D.F. Seeds, Inc.
F2016	White	White	Awnletted	93.2	-----	-----	-----	55.7	-----	-----	-----	91.3	-----	-----	32.1	-----	-----	28.5	-----	-----	-----	-----	-----	-----	Michigan State University
DF EX W B-1	White	White	Awnletted	93.0	-----	-----	-----	56.8	-----	-----	-----	83.8	-----	-----	47.4	-----	-----	39.5	-----	-----	-----	-----	-----	-----	D.F. Seeds, Inc.
Aubrey	White	White	Awnletted	93.0	88.5	85.0	84.7	59.5	59.7	59.2	59.4	78.8	73.2	58.5	26.3	31.1	36.8	21.0	22.5	18.9	8.2	11.1	7.4	5.9	D.F. Seeds, Inc.
DF EX R C	White	White	Awnless	92.4	-----	-----	-----	55.9	-----	-----	-----	97.5	-----	-----	34.0	-----	-----	33.4	-----	-----	-----	-----	-----	-----	D.F. Seeds, Inc.
MSU E6012	White	White	Awned	91.9	88.2	86.8	86.4	57.0	57.8	57.7	58.4	86.3	84.4	63.5	40.4	38.9	38.5	35.1	33.0	24.1	9.0	9.4	6.3	5.0	Michigan Crop Improvement Association
AC Mountain	White	White	Awnletted	91.5	91.2	89.5	89.1	56.3	57.7	57.2	57.3	96.3	90.7	67.1	48.9	48.4	46.8	47.1	43.3	32.3	13.1	14.0	9.5	7.6	Michigan Crop Improvement Association
F1027	White	White	Awnletted	91.3	-----	-----	-----	58.4	-----	-----	-----	90.0	-----	-----	28.8	-----	-----	26.2	-----	-----	-----	-----	-----	-----	Michigan State University
TW528-003	White	White	Awnletted	90.8	88.4	-----	-----	57.3	58.6	-----	-----	88.8	76.9	-----	24.5	32.0	-----	22.2	25.2	-----	2.9	-----	-----	-----	Harrington Seeds, Inc.
DF 110W	White	White	Awned	90.7	87.2	86.2	87.3	56.3	56.9	57.1	58.0	91.3	86.9	65.4	22.2	25.5	25.4	20.1	21.7	16.0	10.8	19.8	13.3	-----	D.F. Seeds, Inc.
Pioneer Brand 25W31	White	White	Awned	90.0	86.6	-----	-----	57.9	59.0	-----	-----	90.0	81.3	-----	15.7	14.9	-----	14.1	12.1	-----	5.1	-----	-----	-----	DuPont Pioneer
9491W	White	White	Awned	90.0	84.3	-----	-----	56.1	57.3	-----	-----	96.3	93.2	-----	25.1	28.6	-----	24.1	27.3	-----	15.6	-----	-----	-----	Dyna-Gro Seed
DF EX W B-2	White	White	Awnletted	89.7	-----	-----	-----	59.3	-----	-----	-----	78.8	-----	-----	30.5	-----	-----	23.9	-----	-----	-----	-----	-----	-----	D.F. Seeds, Inc.
MCIA Venus	White	White	Awned	89.3	85.9	84.7	86.2	56.3	57.4	57.2	57.6	88.8	85.7	73.0	35.4	35.6	39.4	31.5	30.5	27.1	12.0	17.1	11.5	-----	Michigan Crop Improvement Association
Ava	White	White	Awnletted	88.7	87.6	85.8	84.6	56.5	57.5	57.5	57.3	88.8	84.4	56.3	27.5	35.2	26.8	24.7	29.4	19.6	4.7	6.0	4.0	3.2	Hyland Seeds
9362W	White	White	Awnless	88.5	87.1	84.3	-----	58.0	59.3	58.9	-----	86.3	80.7	56.3	30.8	27.7	24.2	26.4	22.8	15.7	6.4	9.6	-----	-----	Dyna-Gro Seed
F1014	White	White	Awnletted	87.8	-----	-----	-----	55.3	-----	-----	-----	91.3	-----	-----	28.5	-----	-----	26.3	-----	-----	-----	-----	-----	-----	Michigan State University
F2038	White	White	Awnletted	87.0	-----	-----	-----	56.8	-----	-----	-----	87.5	-----	-----	31.2	-----	-----	27.4	-----	-----	-----	-----	-----	-----	Michigan State University
MSU 5024	White	White	Awned	86.3	81.6	-----	-----	56.0	56.7	-----	-----	92.5	91.3	-----	26.4	30.3	-----	24.5	27.4	-----	10.8	-----	-----	-----	Michigan Crop Improvement Association
F2019	White	White	Awnletted	86.2	-----	-----	-----	54.9	-----	-----	-----	83.8	-----	-----	34.9	-----	-----	29.7	-----	-----	-----	-----	-----	-----	Michigan State University
<b>MEAN (2015 96 Entries)</b>				<b>92.9</b>	<b>91.2</b>	<b>90.1</b>	<b>89.3</b>	<b>57.6</b>	<b>58.3</b>	<b>58.1</b>	<b>58.3</b>	<b>87.1</b>	<b>81.9</b>	<b>64.2</b>	<b>27.1</b>	<b>31.3</b>	<b>33.6</b>	<b>23.9</b>	<b>26.1</b>	<b>21.5</b>	<b>7.7</b>	<b>11.6</b>	<b>8.3</b>	<b>6.4</b>	
<b>LSD (0.05)</b>				<b>4.1</b>	<b>6.5</b>	<b>4.4</b>	<b>4.0</b>	<b>1.3</b>	<b>1.2</b>	<b>0.9</b>	<b>1.0</b>	<b>11.7</b>	<b>11.9</b>	<b>17.9</b>	<b>9.0</b>	<b>14.4</b>	<b>12.7</b>	<b>9.0</b>	<b>12.1</b>	<b>11.4</b>	<b>4.6</b>	<b>6.5</b>	<b>5.7</b>	<b>4.8</b>	
<b>CV (%)</b>				<b>7.8</b>	<b>3.5</b>	<b>3.0</b>	<b>3.2</b>	<b>4.0</b>	<b>1.0</b>	<b>0.9</b>	<b>1.2</b>	<b>11.5</b>	<b>7.2</b>	<b>17.2</b>	<b>28.5</b>	<b>22.8</b>	<b>23.3</b>	<b>32.3</b>	<b>23.0</b>	<b>32.4</b>	<b>50.9</b>	<b>27.6</b>	<b>41.7</b>	<b>52.2</b>	

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Table 2 : Multi-Year Performance Summary (Note: Tables sorted by 2015 Yield, red wheats grouped before white)

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Name	Grain Color	Flowering Date (Days Past Jan. 1)				Plant Height (Inches)				Percent Grain Moisture at Harvest				Lodging Score (0-9) (0=none)			Visual Sprout Score (0-9)		Winter Injury Score (1-5) 2014
		Multi-Year Averages				Multi-Year Averages				Multi-Year Averages				Multi-Year Averages			Multi-Year		
		2 YR	3 YR	4 YR	2015	2 YR	3 YR	4 YR	2015	2 YR	3 YR	4 YR	2015	2 YR	3 YR	2015	2 YR		
AgriMAXX 447	Red	151.7	154.0	-----	-----	32.2	33.7	-----	-----	16.0	17.0	-----	-----	2.9	2.5	-----	2.5	2.8	1.0
W 206	Red	149.2	152.0	152.5	-----	32.3	33.5	34.1	-----	14.7	15.1	14.4	-----	2.7	2.4	2.1	2.5	3.0	1.0
DF 112R	Red	149.0	151.9	152.4	-----	29.8	31.3	31.6	-----	14.1	14.4	13.8	-----	3.7	3.4	3.3	6.0	5.3	1.6
MCIA Whale	Red	151.2	153.8	154.7	-----	32.6	34.0	34.3	-----	15.6	16.5	15.7	-----	2.9	2.5	2.0	1.0	2.5	1.1
Sunburst	Red	150.4	153.1	154.1	151.3	28.6	29.2	30.0	29.3	16.0	16.4	15.4	15.2	1.8	1.4	1.6	0.0	0.8	1.4
HS EX3	Red	152.3	-----	-----	-----	32.1	-----	-----	-----	14.3	-----	-----	-----	4.4	-----	-----	1.0	-----	-----
Diener 491W	Red	148.7	151.3	-----	-----	30.3	31.6	-----	-----	14.2	14.6	-----	-----	2.0	1.5	-----	6.0	5.0	1.1
AgriMAXX 444	Red	149.9	-----	-----	-----	31.7	-----	-----	-----	15.0	-----	-----	-----	3.1	-----	-----	3.0	-----	-----
HS EX6	Red	149.2	-----	-----	-----	31.8	-----	-----	-----	15.1	-----	-----	-----	5.1	-----	-----	4.0	-----	-----
SY 483	Red	151.0	154.1	154.7	-----	32.5	33.4	33.8	-----	15.3	16.1	15.1	-----	4.9	3.5	3.3	0.0	1.5	1.3
AgriMAXX EXP 1555	Red	149.1	-----	-----	-----	32.4	-----	-----	-----	15.2	-----	-----	-----	3.6	-----	-----	3.5	-----	-----
MCIA EXP 0762	Red	149.2	-----	-----	-----	29.9	-----	-----	-----	14.0	-----	-----	-----	2.3	-----	-----	1.5	-----	-----
MCIA Red Dragon	Red	149.2	151.7	152.4	149.9	34.6	36.0	36.7	36.0	13.8	14.0	13.7	13.5	5.4	4.6	3.7	1.5	2.0	1.0
L-214	Red	148.3	-----	-----	-----	30.2	-----	-----	-----	14.2	-----	-----	-----	5.1	-----	-----	1.5	-----	-----
Steyer Morrin	Red	151.7	-----	-----	-----	31.9	-----	-----	-----	16.1	-----	-----	-----	2.4	-----	-----	1.0	-----	-----
AgriMAXX 413	Red	148.8	151.4	151.9	149.2	29.8	31.1	31.4	31.1	13.8	13.9	13.3	13.3	3.1	2.9	2.9	0.5	-----	1.0
9552	Red	149.8	-----	-----	-----	30.4	-----	-----	-----	14.4	-----	-----	-----	2.3	-----	-----	1.0	-----	-----
AgriMAXX 446	Red	149.9	-----	-----	-----	29.8	-----	-----	-----	14.4	-----	-----	-----	2.7	-----	-----	0.5	-----	-----
AgriMAXX 438	Red	149.4	152.3	152.9	-----	33.3	34.2	34.4	-----	15.9	16.3	15.3	-----	5.5	7.3	6.1	1.0	0.5	1.4
L-377	Red	148.5	-----	-----	-----	30.7	-----	-----	-----	14.3	-----	-----	-----	3.6	-----	-----	1.5	-----	-----
Pioneer Brand 25R40	Red	149.4	152.3	153.1	150.5	28.6	29.9	30.4	30.1	14.3	14.5	13.9	13.8	2.9	2.1	2.0	4.0	3.5	1.4
WX15712	Red	149.3	-----	-----	-----	32.4	-----	-----	-----	14.8	-----	-----	-----	4.7	-----	-----	5.0	-----	-----
Steyer STex141	Red	149.0	-----	-----	-----	32.0	-----	-----	-----	15.4	-----	-----	-----	3.7	-----	-----	2.5	-----	-----
DF EX R J-3	Red	149.0	-----	-----	-----	32.3	-----	-----	-----	14.9	-----	-----	-----	4.4	-----	-----	2.0	-----	-----
MCIA Blazer	Red	148.0	150.7	151.5	148.8	30.6	32.1	32.5	32.3	14.3	14.7	14.2	14.0	4.9	4.0	3.6	1.0	1.3	1.1
SY 474	Red	150.3	152.8	-----	-----	34.5	34.6	-----	-----	14.7	15.3	-----	-----	5.1	4.1	-----	0.5	1.5	1.0
DF 111R	Red	149.4	152.2	152.9	-----	33.0	34.4	34.7	-----	14.6	15.1	14.5	-----	2.9	2.5	2.1	4.5	-----	1.4
RS 972	Red	149.6	152.5	153.2	150.7	32.8	33.7	33.8	33.1	16.1	16.5	15.5	15.1	6.0	5.9	4.9	1.5	2.0	1.0
RS 910	Red	149.3	-----	-----	-----	32.3	-----	-----	-----	14.7	-----	-----	-----	3.5	-----	-----	2.5	-----	-----
F1026R	Red	151.0	-----	-----	-----	30.1	-----	-----	-----	14.7	-----	-----	-----	4.2	-----	-----	2.5	-----	-----
MCIA 9109	Red	148.1	-----	-----	-----	31.2	-----	-----	-----	14.9	-----	-----	-----	5.9	-----	-----	0.5	-----	-----
Pioneer Brand 25R50	Red	150.3	-----	-----	-----	29.5	-----	-----	-----	13.9	-----	-----	-----	2.1	-----	-----	1.0	-----	-----



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		Multi-Year Averages				Multi-Year Averages				Multi-Year Averages				Multi-Year Averages			Multi-Year		
		2015	2 YR 2014-15	3 YR 2013-15	4 YR 2012-15	2015	2 YR 2014-15	3 YR 2013-15	4 YR 2012-15	2015	2 YR 2014-15	3 YR 2013-15	4 YR 2012-15	2015	2 YR 2014-15	3 YR 2013-15	2015	2 YR 2014-15	
9522	Red	150.4	-----	-----	-----	31.6	-----	-----	-----	15.1	-----	-----	-----	3.2	-----	-----	2.0	-----	-----
L-241	Red	148.7	150.9	-----	-----	32.0	33.4	-----	-----	14.4	14.9	-----	-----	6.9	5.8	-----	0.0	2.0	1.0
RS 9XP011	Red	149.2	-----	-----	-----	32.2	-----	-----	-----	15.1	-----	-----	-----	3.9	-----	-----	3.0	-----	-----
SY 007	Red	148.7	-----	-----	-----	30.5	-----	-----	-----	14.1	-----	-----	-----	3.9	-----	-----	2.5	-----	-----
9223	Red	149.6	152.4	153.2	150.8	33.1	33.8	33.9	33.4	16.4	16.4	15.4	15.0	5.8	6.1	4.9	1.5	2.0	1.0
Diener 512	Red	149.7	152.4	153.2	-----	32.7	33.8	33.9	-----	16.3	16.5	15.6	-----	5.6	6.5	5.2	2.0	2.8	1.3
MCIA 7002012	Red	149.6	152.1	152.7	-----	34.1	33.5	34.1	-----	16.9	16.8	15.7	-----	3.4	3.6	3.6	3.0	3.0	1.3
Pioneer Brand 25R25	Red	149.9	-----	-----	-----	31.2	-----	-----	-----	15.9	-----	-----	-----	3.6	-----	-----	2.0	-----	-----
L-334	Red	149.3	151.8	-----	-----	32.7	33.4	-----	-----	15.2	15.4	-----	-----	7.4	5.4	-----	3.0	2.3	1.4
DF EX R J-1	Red	149.8	-----	-----	-----	30.1	-----	-----	-----	14.1	-----	-----	-----	5.4	-----	-----	0.5	-----	-----
DF EX R J-2	Red	149.6	-----	-----	-----	31.8	-----	-----	-----	14.4	-----	-----	-----	4.8	-----	-----	1.5	-----	-----
MCIA EXP A	Red	148.5	151.1	151.8	-----	32.2	32.7	33.2	-----	13.4	13.8	13.5	-----	6.1	5.1	4.8	1.0	1.0	1.1
DF 109R	Red	149.3	152.3	153.2	150.9	33.5	33.9	33.9	33.3	15.6	16.3	15.2	14.9	6.3	5.8	4.9	1.0	1.5	1.6
DF 105R	Red	148.7	151.2	151.8	149.1	29.3	30.9	31.4	30.7	14.1	14.1	13.5	13.4	3.1	2.9	2.6	5.0	5.5	1.0
Hilliard	Red	149.3	-----	-----	-----	31.8	-----	-----	-----	14.5	-----	-----	-----	2.2	-----	-----	3.5	-----	-----
Sienna	Red	149.2	151.8	152.4	-----	35.0	36.2	37.2	-----	14.0	14.5	14.0	-----	5.4	4.9	3.8	1.0	1.8	1.4
HS EX7	Red	148.6	-----	-----	-----	31.7	-----	-----	-----	14.3	-----	-----	-----	6.9	-----	-----	1.0	-----	-----
MCIA EXP 02444	Red	148.6	-----	-----	-----	29.3	-----	-----	-----	14.1	-----	-----	-----	1.7	-----	-----	2.5	-----	-----
MCIA Red Devil	Red	149.5	151.9	152.9	150.3	32.9	33.3	33.6	32.8	14.2	14.6	14.1	14.0	4.5	3.3	2.9	0.5	1.3	1.0
HS 284R	Red	149.4	151.8	152.5	-----	34.3	36.0	36.8	-----	14.1	14.3	13.7	-----	5.7	4.4	3.5	0.5	2.5	1.4
MCIA Rocket	Red	148.9	-----	-----	-----	31.2	-----	-----	-----	13.5	-----	-----	-----	4.8	-----	-----	1.5	-----	-----
RS 907	Red	148.9	151.8	152.4	-----	30.6	31.9	32.3	-----	14.6	15.1	14.5	-----	3.8	3.1	2.9	2.0	-----	1.4
L-232	Red	147.8	-----	-----	-----	30.4	-----	-----	-----	14.5	-----	-----	-----	5.5	-----	-----	1.0	-----	-----
SY 547	Red	149.4	-----	-----	-----	31.8	-----	-----	-----	15.3	-----	-----	-----	3.8	-----	-----	2.0	-----	-----
MCIA 2014034	Red	151.5	-----	-----	-----	31.9	-----	-----	-----	15.8	-----	-----	-----	3.1	-----	-----	2.0	-----	-----
LCS News	Red	147.8	150.3	151.1	-----	30.4	31.4	32.2	-----	14.6	14.6	14.2	-----	6.0	6.4	5.8	0.5	0.3	1.1
F0036R	Red	150.1	153.3	153.9	-----	26.7	27.4	28.4	-----	14.6	14.9	14.1	-----	1.9	1.6	1.4	3.0	3.0	1.6
L-264	Red	147.7	-----	-----	-----	30.3	-----	-----	-----	13.9	-----	-----	-----	4.5	-----	-----	4.5	-----	-----
VA11W-106	Red	149.2	-----	-----	-----	30.7	-----	-----	-----	14.4	-----	-----	-----	3.6	-----	-----	1.5	-----	-----
Hopewell	Red	149.8	152.6	153.3	150.9	34.2	35.0	35.3	34.6	14.0	14.2	13.8	13.7	4.8	3.6	2.9	0.0	1.0	1.1
DF 113R	Red	149.7	152.4	-----	-----	31.9	33.2	-----	-----	15.6	15.6	-----	-----	3.3	2.7	-----	1.0	2.0	1.1

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		Multi-Year Averages				Multi-Year Averages				Multi-Year Averages				Multi-Year Averages			Multi-Year		
		2015	2 YR 2014-15	3 YR 2013-15	4 YR 2012-15	2015	2 YR 2014-15	3 YR 2013-15	4 YR 2012-15	2015	2 YR 2014-15	3 YR 2013-15	4 YR 2012-15	2015	2 YR 2014-15	3 YR 2013-15	2015	2 YR 2014-15	
MCIA Flame	Red	150.3	-----	-----	-----	31.2	-----	-----	-----	14.8	-----	-----	-----	3.4	-----	-----	-----	-----	-----
Shirley	Red	150.2	152.9	154.0	151.3	29.7	30.0	30.1	29.6	14.2	14.6	14.0	13.9	2.3	2.0	1.7	2.0	2.0	2.0
MCIA EXP 05247	Red	150.5	-----	-----	-----	32.9	-----	-----	-----	17.2	-----	-----	-----	1.8	-----	-----	0.0	-----	-----
L-347	Red	148.0	-----	-----	-----	32.4	-----	-----	-----	14.8	-----	-----	-----	6.8	-----	-----	0.0	-----	-----
Red Ruby	Red	149.7	152.7	153.5	150.9	31.4	32.8	33.1	32.6	14.5	15.0	14.3	14.0	2.9	3.0	2.7	4.0	4.0	1.6
F2014R	Red	149.6	-----	-----	-----	33.4	-----	-----	-----	14.0	-----	-----	-----	5.9	-----	-----	3.0	-----	-----
9242W	White	150.1	152.3	153.3	150.7	30.8	32.2	32.8	32.3	14.1	14.5	14.0	13.8	2.8	2.4	2.3	3.5	4.8	1.3
Jupiter	White	151.7	154.0	154.6	152.3	28.9	30.6	31.4	31.2	14.0	14.2	13.6	13.8	2.8	2.3	2.3	6.0	-----	1.6
Ambassador	White	149.4	152.2	153.0	150.2	31.3	32.7	33.2	32.7	12.7	13.3	12.8	12.9	3.8	3.4	3.0	2.9	4.7	1.1
F2016	White	152.0	-----	-----	-----	35.8	-----	-----	-----	17.0	-----	-----	-----	6.1	-----	-----	0.5	-----	-----
DF EX W B-1	White	149.4	-----	-----	-----	32.6	-----	-----	-----	13.7	-----	-----	-----	5.0	-----	-----	3.1	-----	-----
Aubrey	White	149.3	151.7	152.4	149.7	30.4	31.7	32.8	32.7	14.0	14.3	13.9	13.8	4.3	3.2	2.7	6.0	6.2	1.0
DF EX R C	White	151.4	-----	-----	-----	32.8	-----	-----	-----	15.5	-----	-----	-----	5.2	-----	-----	1.5	-----	-----
MSU E6012	White	150.5	153.3	153.6	150.9	31.0	31.2	31.9	31.8	13.5	13.9	13.4	13.3	4.4	3.1	3.1	3.5	4.2	2.0
AC Mountain	White	150.3	153.3	154.1	152.0	38.0	37.7	38.1	37.2	13.3	13.9	13.4	13.4	6.8	7.3	6.1	2.9	5.2	1.0
F1027	White	149.7	-----	-----	-----	28.2	-----	-----	-----	14.4	-----	-----	-----	2.2	-----	-----	8.1	-----	-----
TW528-003	White	152.3	154.6	-----	-----	36.0	35.1	-----	-----	14.9	15.4	-----	-----	6.4	5.4	-----	1.0	3.5	1.1
DF 110W	White	150.2	153.1	153.8	151.1	29.0	29.7	30.7	30.3	15.3	15.8	14.8	14.5	3.3	2.7	2.7	6.9	7.0	1.3
Pioneer Brand 25W31	White	151.7	153.7	-----	-----	31.2	31.8	-----	-----	15.7	16.0	-----	-----	1.8	1.6	-----	2.5	4.3	1.3
9491W	White	149.9	152.8	-----	-----	29.3	30.2	-----	-----	15.2	15.8	-----	-----	1.9	1.6	-----	5.5	6.3	1.1
DF EX W B-2	White	149.2	-----	-----	-----	33.7	-----	-----	-----	14.3	-----	-----	-----	5.2	-----	-----	4.5	-----	-----
MCIA Venus	White	148.5	151.6	152.3	149.4	31.9	33.1	33.8	33.3	14.2	14.7	14.1	13.9	5.2	3.8	3.5	5.0	4.5	3.1
Ava	White	152.6	154.6	155.7	153.4	37.2	37.4	37.3	36.6	16.6	16.8	15.6	15.8	6.3	4.5	4.2	7.0	7.8	1.1
9362W	White	150.5	152.9	153.8	-----	31.0	31.8	32.2	-----	14.7	15.3	14.6	-----	2.9	2.5	2.2	3.0	5.3	1.4
F1014	White	150.8	-----	-----	-----	31.1	-----	-----	-----	15.1	-----	-----	-----	1.7	-----	-----	1.1	-----	-----
F2038	White	149.3	-----	-----	-----	29.5	-----	-----	-----	13.6	-----	-----	-----	5.5	-----	-----	4.0	-----	-----
MSU 5024	White	151.9	154.6	-----	-----	29.6	30.2	-----	-----	15.0	15.6	-----	-----	2.5	2.1	-----	0.5	-----	1.9
F2019	White	148.8	-----	-----	-----	32.4	-----	-----	-----	14.5	-----	-----	-----	3.4	-----	-----	5.5	-----	-----
<b>MEAN (2015 96 Entries)</b>		<b>149.7</b>	<b>152.5</b>	<b>153.1</b>	<b>150.6</b>	<b>31.7</b>	<b>32.7</b>	<b>33.3</b>	<b>32.6</b>	<b>14.8</b>	<b>15.2</b>	<b>14.3</b>	<b>14.0</b>	<b>4.1</b>	<b>3.7</b>	<b>3.3</b>	<b>1.7</b>	<b>3.2</b>	<b>1.4</b>
<b>LSD (0.05)</b>		<b>0.4</b>	<b>0.8</b>	<b>0.7</b>	<b>0.7</b>	<b>0.8</b>	<b>2.1</b>	<b>1.2</b>	<b>1.1</b>	<b>0.4</b>	<b>0.8</b>	<b>0.8</b>	<b>0.7</b>	<b>1.1</b>	<b>2.4</b>	<b>1.6</b>	<b>2.3</b>	<b>2.7</b>	<b>0.5</b>
<b>CV (%)</b>		<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>2.4</b>	<b>3.2</b>	<b>2.3</b>	<b>2.4</b>	<b>4.8</b>	<b>2.6</b>	<b>3.2</b>	<b>3.4</b>	<b>33.9</b>	<b>33.0</b>	<b>29.1</b>	<b>79.5</b>	<b>42.3</b>	<b>44.8</b>



2015 Michigan State University Wheat Performance Trials (Including Experimentals)

Multi-year data are the most informative.  
MSU makes no endorsement of any variety or brand.

Table 3 : Multi-Year Performance Summary (Note: Tables sorted by 2015 Yield, red wheats grouped before white)

Name	Grain Color	Powdery Mildew Score (0-9)				Leaf Blotch Score (0-9)		Cephalo- sporium Stripe Score (0-9)	Wheat Streak Mosaic Virus Score (0-9)	Barley Yellow Dwarf Score (0-9)	Leaf Rust Score (0-9)				Stripe Rust Score (0-9)			Black Point (tip) Percent			
		Multi-Year Averages				Multi-Year					Multi-Year Averages				Multi-Year Averages			Multi-Year Averages			
		2015	2 YR 2014-15	3 YR 2013-15	4 YR 2012-15	2015	2014-15	2015	2014	2013	2015	2014-15	2013-15	2012-15	2013	2 YR 2012-13	3 YR 2011-13	2014	2 YR 2013-14	3 YR 2012-14	4 YR 2011-14
9522	Red	1.9	-----	-----	-----	5.2	-----	4.4	-----	-----	4.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
L-241	Red	3.5	5.7	-----	-----	4.2	4.3	1.6	3.0	-----	2.5	2.3	-----	-----	-----	-----	8.0	-----	-----	-----	-----
RS 9XP011	Red	2.9	-----	-----	-----	3.7	-----	4.1	-----	-----	5.9	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
SY 007	Red	0.1	-----	-----	-----	7.4	-----	4.8	-----	-----	0.7	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
9223	Red	3.2	4.0	3.6	3.9	5.7	4.4	4.2	7.0	3.8	6.1	5.2	3.9	3.4	0.3	1.0	-----	53.5	40.1	28.3	-----
Diener 512	Red	3.2	4.0	4.0	-----	6.2	4.3	4.1	6.3	1.3	5.4	5.4	3.6	-----	0.0	-----	-----	56.2	38.5	-----	-----
MCIA 7002012	Red	0.4	1.5	1.0	-----	4.8	3.9	2.9	1.3	0.6	0.0	0.2	0.4	-----	4.4	-----	-----	23.2	27.2	-----	-----
Pioneer Brand 25R25	Red	2.1	-----	-----	-----	4.8	-----	4.6	-----	-----	4.5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
L-334	Red	0.5	2.1	-----	-----	5.5	4.4	4.7	5.3	-----	2.3	2.2	-----	-----	-----	-----	6.4	-----	-----	-----	-----
DF EX R J-1	Red	4.5	-----	-----	-----	5.4	-----	4.0	-----	-----	2.3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
DF EX R J-2	Red	5.0	-----	-----	-----	5.7	-----	4.0	-----	-----	2.4	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
MCIA EXP A	Red	1.4	5.2	4.8	-----	4.5	4.1	7.0	3.0	2.8	0.0	0.2	0.4	-----	1.5	-----	-----	18.9	23.8	-----	-----
DF 109R	Red	2.8	4.1	3.4	3.3	5.1	3.7	4.5	5.7	2.0	5.7	4.9	3.3	2.9	0.0	0.1	-----	51.8	38.6	27.6	-----
DF 105R	Red	0.1	1.7	1.5	2.5	4.5	3.9	2.9	5.0	2.9	3.7	3.0	2.5	2.2	0.6	0.7	0.4	29.1	19.2	13.8	16.1
Hilliard	Red	0.7	-----	-----	-----	5.8	-----	5.9	-----	-----	0.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Sienna	Red	1.2	2.8	2.5	-----	4.7	3.5	5.6	4.0	2.1	5.9	5.0	3.6	-----	2.4	-----	-----	25.8	19.7	-----	-----
HS EX7	Red	5.6	-----	-----	-----	5.1	-----	3.5	-----	-----	2.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
MCIA EXP 02444	Red	4.9	-----	-----	-----	4.4	-----	3.1	-----	-----	2.7	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
MCIA Red Devil	Red	0.2	0.9	0.6	0.7	5.3	4.2	3.8	1.3	1.8	2.9	1.8	1.2	1.1	1.0	1.6	1.7	30.4	29.7	21.0	23.4
HS 284R	Red	0.8	1.9	1.9	-----	4.1	3.9	4.9	4.0	1.9	5.9	4.6	3.9	-----	2.5	-----	-----	27.6	22.3	-----	-----
MCIA Rocket	Red	2.5	-----	-----	-----	6.4	-----	6.6	-----	-----	1.3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
RS 907	Red	0.4	2.4	1.9	-----	5.3	4.0	3.7	5.3	2.0	0.3	0.8	0.7	-----	1.3	-----	-----	45.5	39.7	-----	-----
L-232	Red	0.0	-----	-----	-----	3.7	-----	3.7	-----	-----	0.9	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
SY 547	Red	0.0	-----	-----	-----	4.7	-----	3.1	-----	-----	1.6	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
MCIA 2014034	Red	0.2	-----	-----	-----	5.1	-----	2.6	-----	-----	0.8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
LCS News	Red	0.0	1.5	1.0	-----	6.9	5.8	4.6	5.7	2.0	3.2	3.6	2.5	-----	1.4	-----	-----	20.7	21.3	-----	-----
F0036R	Red	4.7	4.9	3.2	-----	4.5	3.1	5.6	7.3	1.6	2.7	2.5	1.7	-----	0.0	-----	-----	9.6	8.5	-----	-----
L-264	Red	0.6	-----	-----	-----	5.6	-----	3.3	-----	-----	0.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
VA11W-106	Red	0.1	-----	-----	-----	5.2	-----	5.3	-----	-----	0.3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Hopewell	Red	0.0	1.9	1.6	1.3	6.6	4.8	4.1	4.7	3.5	4.9	4.6	3.3	3.4	3.0	3.5	2.3	5.0	7.9	6.3	6.1
DF 113R	Red	3.2	6.0	-----	-----	5.1	4.1	5.1	3.0	-----	3.8	2.8	-----	-----	-----	-----	-----	29.7	-----	-----	-----

2015 Michigan State University Wheat Performance Trials (Including Experimentals)

Multi-year data are the most informative.  
MSU makes no endorsement of any variety or brand.

Table 3 : Multi-Year Performance Summary (Note: Tables sorted by 2015 Yield, red wheats grouped before white)

Name	Grain Color	Powdery Mildew Score (0-9)				Leaf Blotch Score (0-9)		Cephalo-sporium Stripe Score (0-9)	Wheat Streak Mosaic Virus Score (0-9)	Barley Yellow Dwarf Score (0-9)	Leaf Rust Score (0-9)				Stripe Rust Score (0-9)			Black Point (tip) Percent			
		Multi-Year Averages				Multi-Year					Multi-Year Averages				Multi-Year Averages			Multi-Year Averages			
		2015	2 YR 2014-15	3 YR 2013-15	4 YR 2012-15	2015	2014-15	2015	2014	2013	2015	2014-15	2013-15	2012-15	2013	2 YR 2012-13	3 YR 2011-13	2014	2 YR 2013-14	3 YR 2012-14	4 YR 2011-14
MCIA Flame	Red	1.0	-----	-----	-----	6.5	-----	6.1	-----	-----	2.2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Shirley	Red	0.4	0.7	0.5	0.4	6.3	4.0	6.1	3.7	1.2	1.6	0.8	0.6	1.1	4.1	5.4	4.4	40.8	39.3	31.2	32.8
MCIA EXP 05247	Red	0.0	-----	-----	-----	5.0	-----	4.4	-----	-----	0.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
L-347	Red	3.7	-----	-----	-----	3.6	-----	2.0	-----	-----	0.5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Red Ruby	Red	0.0	1.9	1.2	1.4	7.8	5.6	7.4	4.3	0.9	4.1	4.2	2.9	3.1	6.0	6.8	5.4	31.7	23.0	17.8	15.6
F2014R	Red	0.0	-----	-----	-----	5.7	-----	3.9	-----	-----	3.9	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
9242W	White	1.3	2.8	1.9	1.6	4.9	4.0	1.9	6.7	2.7	4.8	4.1	3.2	2.8	4.4	5.0	4.0	19.4	15.9	11.2	20.5
Jupiter	White	0.5	2.9	2.9	2.2	5.3	4.0	4.5	3.0	0.8	5.1	5.4	3.6	3.3	2.2	3.4	2.2	5.8	7.9	6.6	6.8
Ambassador	White	0.0	1.4	0.9	0.7	7.2	5.5	5.6	6.7	2.1	5.9	5.0	3.5	3.1	5.4	6.4	4.2	9.9	9.3	7.2	7.5
F2016	White	2.8	-----	-----	-----	5.2	-----	3.0	-----	-----	4.3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
DF EX W B-1	White	0.5	-----	-----	-----	5.6	-----	5.4	-----	-----	3.6	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Aubrey	White	0.0	1.0	0.7	0.5	4.8	4.1	3.0	4.0	2.7	2.5	1.9	1.3	1.8	5.6	5.8	3.9	18.1	14.4	10.1	14.7
DF EX R C	White	0.3	-----	-----	-----	4.5	-----	4.0	-----	-----	1.2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
MSU E6012	White	0.8	2.4	1.6	1.8	6.5	4.1	4.2	3.7	0.2	8.9	6.6	4.9	4.8	0.0	0.2	0.1	18.1	13.6	9.6	8.4
AC Mountain	White	1.9	2.6	2.1	1.6	5.7	4.2	2.0	5.0	3.1	4.4	3.9	2.7	2.4	5.8	6.1	5.2	21.1	16.5	12.9	17.1
F1027	White	0.2	-----	-----	-----	5.8	-----	4.6	-----	-----	3.8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
TW528-003	White	0.3	0.8	-----	-----	3.0	2.4	4.0	6.3	-----	5.0	4.2	-----	-----	-----	-----	-----	35.5	-----	-----	-----
DF 110W	White	0.0	1.0	1.0	1.0	4.1	3.7	4.1	1.3	1.2	7.0	6.5	4.5	4.4	0.6	1.5	-----	23.1	16.8	12.4	-----
Pioneer Brand 25W31	White	0.0	0.9	-----	-----	5.0	3.9	2.9	7.3	-----	0.0	0.4	-----	-----	-----	-----	-----	43.2	-----	-----	-----
9491W	White	0.5	1.1	-----	-----	5.8	4.8	5.0	3.0	-----	0.5	0.6	-----	-----	-----	-----	-----	35.4	-----	-----	-----
DF EX W B-2	White	1.4	-----	-----	-----	5.7	-----	5.4	-----	-----	1.8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
MCIA Venus	White	0.5	1.4	0.9	0.9	5.8	4.8	3.6	7.3	0.0	2.5	2.6	1.8	1.6	0.1	0.3	-----	13.8	11.1	7.7	-----
Ava	White	0.9	2.3	2.5	1.9	4.6	3.8	3.1	3.0	2.5	5.8	4.3	3.0	2.6	4.1	3.1	2.0	28.1	28.2	20.0	26.8
9362W	White	2.0	3.4	3.2	-----	4.1	3.1	3.0	4.7	1.7	3.9	3.1	2.2	-----	0.6	-----	-----	26.1	20.9	-----	-----
F1014	White	2.8	-----	-----	-----	4.5	-----	4.6	-----	-----	5.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
F2038	White	0.0	-----	-----	-----	5.9	-----	2.4	-----	-----	8.1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
MSU 5024	White	0.2	1.0	-----	-----	6.2	4.5	4.7	3.3	-----	0.2	0.8	-----	-----	-----	-----	-----	16.1	-----	-----	-----
F2019	White	0.2	-----	-----	-----	5.1	-----	4.2	-----	-----	3.2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
<b>MEAN (2015 96 Entries)</b>		<b>1.5</b>	<b>2.5</b>	<b>2.1</b>	<b>1.6</b>	<b>5.3</b>	<b>4.1</b>	<b>4.2</b>	<b>4.6</b>	<b>1.9</b>	<b>3.0</b>	<b>3.0</b>	<b>2.6</b>	<b>2.7</b>	<b>1.9</b>	<b>2.6</b>	<b>2.7</b>	<b>28.6</b>	<b>24.3</b>	<b>15.5</b>	<b>15.9</b>
<b>LSD (0.05)</b>		<b>1.6</b>	<b>2.0</b>	<b>1.5</b>	<b>1.4</b>	<b>1.1</b>	<b>1.5</b>	<b>1.6</b>	<b>1.3</b>	<b>1.1</b>	<b>1.6</b>	<b>1.9</b>	<b>2.0</b>	<b>1.6</b>	<b>3.0</b>	<b>1.7</b>	<b>2.2</b>	<b>23.1</b>	<b>18.8</b>	<b>12.9</b>	<b>11.7</b>
<b>CV (%)</b>		<b>90.2</b>	<b>39.0</b>	<b>45.5</b>	<b>62.9</b>	<b>18.6</b>	<b>17.7</b>	<b>32.5</b>	<b>20.4</b>	<b>33.8</b>	<b>39.0</b>	<b>31.4</b>	<b>48.6</b>	<b>41.4</b>	<b>94.0</b>	<b>31.3</b>	<b>47.6</b>	<b>40.2</b>	<b>38.2</b>	<b>50.5</b>	<b>51.6</b>

2015 Michigan State University Wheat Performance Trials (Including Experimentals)

Multi-year data are the most informative.

Table 4 : Single Site: Yield, Test Weight and Moisture Performance Summary (Note: Tables sorted alphabetically by organization)

MSU makes no endorsement of any variety or brand.

Name	Grain Color	HURON				INGHAM				LENAWEE				SANILAC				TUSCOLA			
		High Management				High Management				High Management				High Management				High Management			
		Yield bu/acre	Rank	Test Weight	Grain Moisture	Yield bu/acre	Rank	Test Weight	Grain Moisture	Yield bu/acre	Rank	Test Weight	Grain Moisture	Yield bu/acre	Rank	Test Weight	Grain Moisture	Yield bu/acre	Rank	Test Weight	Grain Moisture
AgriMAXX 413	Red	100.1	51	58.4	14.1	91.7	23	56.4	12.4	80.2	61	58.6	15.9	121.6	6	61.6	14.0	110.4	29	58.9	13.4
AgriMAXX 438	Red	108.3	22	58.8	16.7	88.3	29	57.3	13.5	75.4	84	54.0	17.4	115.6	32	58.4	19.3	115.8	7	60.9	14.4
AgriMAXX 444	Red	111.4	10	62.4	15.2	87.5	31	56.4	13.0	90.5	7	58.0	16.8	117.5	22	57.3	17.3	109.9	32	58.4	13.9
AgriMAXX 446	Red	95.8	71	57.8	14.5	100.2	5	58.0	12.8	85.4	31	58.6	16.4	113.6	41	59.8	15.4	117.5	5	61.4	13.9
AgriMAXX 447	Red	109.8	16	58.0	18.8	96.1	14	56.1	13.3	87.0	23	56.3	17.5	121.2	8	55.3	19.1	110.9	28	60.5	13.8
AgriMAXX EXP 1555	Red	92.4	78	59.3	16.0	96.9	11	56.6	13.2	81.4	53	55.6	18.0	121.3	7	59.5	15.9	117.6	4	60.0	13.9
Diener 491W	Red	107.2	26	61.8	13.6	97.4	9	55.8	12.9	86.1	28	58.5	16.3	115.4	34	62.0	15.5	107.4	54	59.4	13.5
Diener 512	Red	101.6	47	59.6	16.9	86.2	38	56.3	13.4	75.3	85	50.5	17.9	108.9	65	56.7	20.5	121.7	1	61.8	14.4
Ambassador	White	121.6	2	60.0	13.1	76.6	73	51.9	11.8	80.1	65	53.4	12.4	121.2	10	56.2	13.1	102.9	76	57.0	13.0
Aubrey	White	113.2	7	60.2	14.7	70.8	85	56.2	13.0	85.4	33	58.0	15.0	117.7	20	61.8	13.4	106.2	60	63.0	14.1
DF 105R	Red	104.0	38	59.9	14.4	78.4	69	55.7	12.3	85.6	30	56.0	15.8	111.5	55	57.6	15.8	104.8	67	58.9	13.3
DF 109R	Red	96.5	67	58.5	15.7	82.0	51	54.2	13.3	80.1	64	54.6	17.8	121.2	9	57.1	18.4	109.8	33	56.7	14.3
DF 110W	White	103.1	43	56.9	16.3	81.2	58	55.3	12.0	76.2	80	54.6	18.3	107.3	75	58.3	19.0	111.2	25	58.7	13.5
DF 111R	Red	106.1	29	59.4	16.1	81.5	55	57.2	12.8	91.1	3	59.4	17.5	113.4	43	60.5	14.7	105.9	61	60.4	13.5
DF 112R	Red	115.3	5	59.1	13.1	83.1	48	56.0	12.7	92.7	1	58.3	16.6	123.9	4	58.5	15.7	111.6	22	59.0	13.5
DF 113R	Red	92.2	79	59.8	16.7	79.4	67	58.1	13.7	66.9	91	57.6	16.7	111.9	51	58.8	18.1	109.7	36	62.0	14.3
DF EX R C	White	105.6	31	58.2	16.8	76.2	74	53.9	13.1	77.5	76	50.0	16.5	119.6	16	59.2	18.1	108.8	44	59.6	14.6
DF EX R J-1	Red	97.5	62	58.1	14.1	78.7	68	57.7	13.0	81.0	56	54.5	15.5	125.9	3	58.9	14.6	114.9	10	60.1	13.7
DF EX R J-2	Red	97.2	65	64.2	14.3	81.7	53	56.8	12.5	78.0	75	58.3	17.7	117.0	24	61.7	15.1	112.8	16	60.5	13.4
DF EX R J-3	Red	86.8	87	60.1	15.5	96.5	13	58.1	13.3	80.2	60	57.1	17.3	121.0	11	60.0	16.0	115.2	9	60.0	14.0
DF EX W B-1	White	112.4	8	59.2	14.4	72.0	82	54.3	12.3	78.3	73	52.8	14.5	123.5	5	59.6	14.3	111.3	24	60.5	13.6
DF EX W B-2	White	109.4	17	59.5	14.5	66.2	89	58.8	12.8	83.1	46	60.8	15.9	119.3	17	60.5	14.9	103.6	71	59.4	14.1
Sienna	Red	97.4	63	60.2	14.8	87.3	33	55.9	12.7	89.2	11	55.6	14.8	108.1	71	58.4	15.0	106.7	57	57.6	13.3
Pioneer Brand 25R25	Red	107.9	24	60.5	17.5	81.6	54	53.0	13.0	76.4	79	55.7	18.4	113.3	44	54.0	19.0	109.8	34	58.0	13.9
Pioneer Brand 25R40	Red	97.9	61	60.8	14.8	92.1	22	59.8	12.8	90.9	5	56.8	16.2	109.7	61	59.6	14.5	111.3	23	58.6	13.7
Pioneer Brand 25R50	Red	99.5	54	57.7	15.6	91.4	24	56.0	12.7	80.8	58	56.3	14.5	109.6	63	58.7	13.8	108.4	46	60.1	13.2
Pioneer Brand 25W31	White	105.4	33	59.3	15.7	75.5	76	55.0	12.7	84.4	38	58.5	19.6	101.7	89	55.8	18.9	105.4	65	62.0	13.8
9223	Red	86.7	88	59.3	19.0	84.7	42	54.5	13.5	80.1	63	51.5	17.3	114.5	36	55.7	20.3	118.2	2	59.4	14.2
9522	Red	111.1	12	61.3	15.0	81.5	57	51.8	12.9	76.8	78	58.0	17.8	112.6	47	56.4	17.2	113.1	14	59.9	14.0
9552	Red	98.8	56	60.5	14.7	101.6	4	58.7	13.0	85.3	34	61.1	16.1	114.6	35	57.2	15.3	111.0	27	58.2	13.8
9242W	White	103.4	40	60.4	14.7	97.6	8	56.4	13.1	87.3	21	57.3	15.3	118.6	19	59.4	14.2	104.2	69	59.0	13.5
9362W	White	84.1	89	59.1	16.6	86.8	36	56.9	13.0	79.7	68	56.0	15.7	105.2	80	59.3	15.7	106.5	59	61.6	13.9

**2015 Michigan State University Wheat Performance Trials** (Including Experimentals)

Multi-year data are the most informative.

Table 4 : Single Site: Yield, Test Weight and Moisture Performance Summary (Note: Tables sorted alphabetically by organization)

MSU makes no endorsement of any variety or brand.

Name	Grain Color	HURON High Management				INGHAM High Management				LENAWEE High Management				SANILAC High Management				TUSCOLA High Management			
		Yield bu/acre	Rank	Test Weight	Grain Moisture	Yield bu/acre	Rank	Test Weight	Grain Moisture	Yield bu/acre	Rank	Test Weight	Grain Moisture	Yield bu/acre	Rank	Test Weight	Grain Moisture	Yield bu/acre	Rank	Test Weight	Grain Moisture
9491W	White	102.1	46	57.5	16.6	85.7	40	54.0	12.4	70.1	88	55.1	17.8	105.9	79	56.8	17.4	102.7	80	58.6	13.6
Shirley	Red	123.0	1	58.3	15.9	71.1	84	53.7	12.3	79.1	71	53.3	15.2	112.0	50	57.4	16.5	99.1	89	57.2	14.0
WX15712	Red	94.2	75	60.0	14.6	98.0	7	57.6	13.0	80.0	66	57.4	17.8	107.1	76	60.0	16.1	117.8	3	60.4	13.9
HS 284R	Red	82.3	90	59.4	15.4	86.7	37	54.7	12.8	89.7	8	56.3	14.7	116.1	28	59.2	14.8	107.4	53	60.1	13.5
HS EX3	Red	111.3	11	59.8	16.0	81.7	52	58.5	13.0	88.5	16	57.3	14.4	116.8	26	60.0	14.8	111.7	21	59.8	13.6
HS EX6	Red	94.9	74	61.0	16.0	99.7	6	57.2	13.3	83.2	45	55.2	17.8	120.2	14	59.7	15.9	113.4	13	59.7	13.9
HS EX7	Red	98.7	57	62.2	13.1	81.5	56	58.1	13.2	83.4	44	56.0	16.3	117.6	21	63.0	15.1	102.2	82	60.1	14.0
TW528-003	White	105.6	32	58.6	17.2	76.1	75	54.5	12.7	80.5	59	54.4	15.9	111.9	52	60.2	15.8	102.7	78	59.6	13.9
Ava	White	90.3	84	57.0	20.4	81.0	60	55.7	12.9	69.9	89	53.7	18.5	108.1	70	57.8	20.1	109.7	35	58.1	13.8
L-214	Red	104.4	36	60.5	14.2	104.9	2	60.3	13.3	84.1	40	58.7	15.5	116.8	27	59.7	14.5	102.9	75	61.4	13.9
L-232	Red	108.4	20	63.2	14.8	78.0	70	60.3	13.2	87.4	20	59.8	16.2	111.7	54	60.9	15.2	100.2	86	61.9	13.9
L-241	Red	95.2	73	61.1	14.8	88.6	28	60.2	13.2	86.3	27	59.3	16.4	112.2	49	62.2	13.6	107.7	51	60.6	14.1
L-264	Red	105.2	34	60.1	14.0	73.7	80	54.5	13.0	89.6	10	56.7	15.3	111.0	56	59.0	14.1	99.1	88	62.9	13.6
L-334	Red	96.0	69	59.0	15.5	81.0	61	56.2	13.4	87.1	22	56.2	17.7	117.3	23	59.1	16.1	113.7	11	61.1	14.4
L-347	Red	91.0	81	61.8	15.9	81.0	62	59.2	13.6	80.9	57	59.7	16.3	106.0	78	63.3	15.0	103.0	74	61.9	13.9
L-377	Red	104.4	37	60.0	14.4	96.9	12	58.6	13.3	87.9	19	57.1	16.4	113.2	45	61.4	14.1	108.2	50	60.1	14.0
LCS News	Red	103.2	41	59.9	15.0	72.2	81	54.0	13.2	89.2	12	57.5	16.8	115.7	31	61.5	14.7	110.2	30	61.6	14.2
AC Mountain	White	110.0	15	59.8	14.2	69.4	86	53.6	12.2	76.1	81	53.0	14.2	113.9	39	58.9	13.0	113.5	12	59.3	13.2
Hopewell	Red	103.7	39	60.4	15.0	86.9	35	58.4	12.7	83.4	43	55.3	14.8	107.9	73	59.7	14.1	96.8	90	58.1	13.6
Jupiter	White	116.3	3	59.8	14.4	86.0	39	56.2	12.5	82.4	49	53.4	14.9	115.7	30	58.9	15.6	112.3	19	59.7	13.5
MCIA 2014034	Red	103.2	42	59.0	18.0	92.3	20	55.7	13.3	81.0	55	52.2	16.9	104.0	81	58.6	17.9	100.0	87	58.4	14.6
MCIA 7002012	Red	88.1	86	53.4	20.9	92.6	18	56.0	13.4	84.3	39	56.3	18.9	109.0	64	57.3	19.5	109.1	43	61.5	14.6
MCIA 9109	Red	115.4	4	62.2	15.2	81.1	59	56.7	13.3	89.7	9	60.9	17.1	112.6	48	63.8	15.2	101.8	84	60.4	14.5
MCIA Blazer	Red	108.5	19	60.0	14.1	83.8	44	60.8	13.1	86.6	26	57.3	15.5	107.9	72	60.5	14.8	102.6	81	60.2	14.0
MCIA EXP 02444	Red	81.1	91	57.2	13.9	97.3	10	55.7	13.0	86.9	24	55.5	15.8	103.7	82	58.7	14.5	107.0	56	59.3	13.5
MCIA EXP 05247	Red	96.7	66	58.3	19.4	80.6	63	57.1	13.4	79.8	67	55.3	20.5	99.6	90	56.0	21.2	92.0	91	58.4	14.2
MCIA EXP 0762	Red	98.5	59	60.0	13.9	93.1	17	55.6	12.9	88.8	13	56.6	15.4	119.7	15	59.2	14.8	109.4	40	60.0	13.2
MCIA EXP A	Red	98.1	60	60.4	14.2	65.5	90	53.7	12.1	88.0	18	56.7	14.8	131.2	1	59.0	12.9	112.0	20	57.8	13.2
MCIA Flame	Red	108.7	18	62.4	15.7	71.6	83	56.4	12.9	81.9	51	56.8	16.9	103.0	84	60.0	15.9	100.3	85	61.8	13.5
MCIA Red Devil	Red	95.5	72	60.8	14.4	84.9	41	58.5	12.7	82.5	47	57.2	15.4	108.5	67	61.1	15.3	107.6	52	60.8	13.5
MCIA Red Dragon	Red	93.4	77	59.1	14.5	94.9	15	59.1	12.7	91.2	2	56.8	15.0	111.7	53	58.0	13.8	112.8	15	59.5	13.5

2015 Michigan State University Wheat Performance Trials (Including Experimentals)

Multi-year data are the most informative.

Table 4 : Single Site: Yield, Test Weight and Moisture Performance Summary (Note: Tables sorted alphabetically by organization)

MSU makes no endorsement of any variety or brand.

Name	Grain Color	HURON High Management				INGHAM High Management				LENAWEE High Management				SANILAC High Management				TUSCOLA High Management			
		Yield bu/acre	Rank	Test Weight	Grain Moisture	Yield bu/acre	Rank	Test Weight	Grain Moisture	Yield bu/acre	Rank	Test Weight	Grain Moisture	Yield bu/acre	Rank	Test Weight	Grain Moisture	Yield bu/acre	Rank	Test Weight	Grain Moisture
MCIA Rocket	Red	96.4	68	57.9	14.1	66.5	88	53.7	12.2	90.8	6	55.7	14.7	126.1	2	59.4	13.4	108.2	49	60.0	13.2
MCIA Venus	White	100.8	50	57.7	16.0	73.8	79	56.4	12.5	83.6	42	55.2	15.8	113.7	40	58.0	14.9	105.6	64	58.1	13.4
MCIA Whale	Red	108.4	21	57.3	16.7	83.8	45	58.0	13.1	88.4	17	55.1	17.7	120.4	13	58.0	18.3	112.6	17	61.2	13.8
MSU 5024	White	102.4	44	56.9	17.1	83.5	46	57.4	12.3	69.1	90	54.7	15.8	102.0	87	57.1	18.6	102.9	77	59.1	13.7
MSU E6012	White	98.9	55	58.7	13.8	74.7	78	50.4	12.3	84.9	36	55.5	14.6	108.8	66	59.1	14.3	108.6	45	61.5	13.3
Red Ruby	Red	101.4	48	59.0	14.5	79.5	66	56.9	12.8	79.4	69	57.9	16.4	103.4	83	58.7	16.3	102.7	79	60.3	14.0
Sunburst	Red	102.3	45	61.1	18.0	92.4	19	61.1	13.2	91.0	4	57.6	17.8	113.5	42	59.1	18.6	109.5	38	62.5	14.0
F0036R	Red	90.6	82	54.6	17.9	89.1	27	52.9	12.8	77.4	77	54.1	15.4	108.2	69	57.8	14.9	109.4	41	59.6	13.4
F1014	White	99.9	53	59.3	16.4	82.5	50	54.7	12.6	70.7	87	51.2	17.8	107.4	74	55.3	16.4	103.2	73	59.3	13.7
F1026R	Red	100.1	52	58.0	16.3	87.5	32	58.8	12.9	88.7	14	55.6	16.5	110.2	59	62.5	15.1	107.2	55	59.0	13.7
F1027	White	105.0	35	60.0	15.8	83.4	47	58.8	12.8	84.4	37	54.2	15.2	101.8	88	59.7	15.3	110.2	31	61.8	13.8
F2014R	Red	98.6	58	57.8	14.9	62.4	91	55.2	12.7	76.1	82	56.7	14.6	117.0	25	59.9	14.6	105.0	66	60.8	13.8
F2016	White	111.0	13	57.5	19.4	77.3	71	56.4	13.1	80.2	62	51.1	18.9	116.0	29	54.1	23.2	104.2	70	60.9	14.0
F2019	White	97.4	64	58.4	17.9	68.9	87	51.4	12.3	81.3	54	53.6	14.2	98.8	91	54.9	15.9	103.3	72	59.8	13.6
F2038	White	93.6	76	60.1	14.1	74.8	77	55.0	12.5	70.9	86	53.9	14.1	109.9	60	57.9	14.0	109.6	37	60.3	13.6
RS 907	Red	106.0	30	60.4	14.9	79.5	65	56.2	13.0	86.0	29	58.5	17.3	106.6	77	60.2	15.0	108.3	47	59.1	13.8
RS 910	Red	110.3	14	62.6	15.8	92.1	21	58.0	13.2	78.0	74	55.3	16.7	102.4	85	58.5	15.6	109.2	42	59.9	13.5
RS 972	Red	92.1	80	59.9	16.8	89.9	26	55.9	13.3	79.3	70	55.4	17.9	112.7	46	56.7	20.2	117.2	6	60.2	14.2
RS 9XP011	Red	89.6	85	61.9	15.9	90.1	25	54.8	13.4	82.0	50	58.0	17.8	110.4	57	59.7	16.0	112.4	18	60.6	13.9
Steyer Morrin	Red	107.8	25	57.5	19.0	93.7	16	55.7	13.2	85.2	35	54.1	17.7	114.0	38	56.8	19.6	109.5	39	58.9	13.5
Steyer STex141	Red	90.4	83	58.8	16.3	105.2	1	60.2	13.3	75.8	83	56.5	18.2	109.6	62	58.9	16.6	115.6	8	62.0	13.9
SY 007	Red	106.7	28	58.7	13.9	76.6	72	56.5	12.9	86.9	25	59.3	15.4	115.5	33	58.9	14.1	105.7	62	61.0	14.3
SY 474	Red	108.3	23	60.1	15.1	84.5	43	57.8	13.4	88.7	15	58.3	16.2	118.7	18	63.7	15.2	101.9	83	60.8	14.0
SY 483	Red	115.0	6	57.6	16.9	83.0	49	56.8	12.7	85.4	32	56.8	15.1	121.0	12	56.8	20.6	108.3	48	59.5	13.4
SY 547	Red	101.2	49	61.3	16.0	86.9	34	57.0	13.5	78.9	72	54.1	17.4	102.2	86	58.7	17.6	104.3	68	59.7	13.6
Hilliard	Red	106.9	27	58.9	16.0	87.9	30	59.6	12.9	82.4	48	57.7	15.9	108.5	68	61.4	15.3	106.5	58	61.4	13.8
VA11W-106	Red	96.0	70	63.0	15.7	80.6	64	57.7	12.6	81.6	52	55.8	15.7	110.3	58	59.9	15.4	111.1	26	61.7	13.8
W 206	Red	112.0	9	61.1	15.3	102.3	3	57.3	13.0	84.1	41	58.2	17.1	114.3	37	60.1	15.2	105.7	63	59.8	13.6
<b>MEAN (2015 96 Entries)</b>		<b>101.5</b>		<b>59.4</b>	<b>15.8</b>	<b>83.8</b>		<b>56.4</b>	<b>12.9</b>	<b>82.3</b>		<b>56.1</b>	<b>16.4</b>	<b>112.4</b>		<b>58.9</b>	<b>16.2</b>	<b>107.6</b>		<b>60.0</b>	<b>13.8</b>
<b>LSD (0.05)</b>		<b>7.8</b>		<b>2.2</b>	<b>1.4</b>	<b>12.4</b>		<b>3.2</b>	<b>0.3</b>	<b>6.2</b>		<b>2.3</b>	<b>0.8</b>	<b>7.7</b>		<b>2.7</b>	<b>1.2</b>	<b>5.8</b>		<b>2.1</b>	<b>0.2</b>
<b>CV (%)</b>		<b>6.6</b>		<b>3.2</b>	<b>7.5</b>	<b>12.7</b>		<b>4.9</b>	<b>1.9</b>	<b>6.4</b>		<b>3.6</b>	<b>4.2</b>	<b>5.9</b>		<b>3.9</b>	<b>6.2</b>	<b>4.7</b>		<b>3.1</b>	<b>0.9</b>



## 2015 Michigan State University Wheat Performance Trials (Including Experimentals)

Multi-year data are the most informative.

Table 5 : Single Site: Ingham County, High Management vs Conventional Performance Summary (Note: Tables sorted alphabetically by organization/entry name)

MSU makes no endorsement of any variety or brand.

Name	Grain Color	INGHAM Conventional					INGHAM High Management					Conventional vs. High Management Differences							
		Yield bu/acre	Rank	Test Weight	Grain Moisture	Lodge Score (0-9)	Yield bu/acre	Rank	Test Weight	Grain Moisture	Lodge Score (0-9)	Yield bu/acre	Rank	Test Weight	Rank	Grain Moisture	Rank	Lodge Score (0-9)	Rank
AgriMAXX 413	Red	78.2	14	57.0	12.7	3.3	91.7	21	56.4	12.4	3.5	+ 13.5	44	- 0.6	50	- 0.3	11	+ 0.2	9
AgriMAXX 438	Red	73.7	29	53.7	14.1	4.3	88.3	27	57.3	13.5	5.5	+ 14.6	40	+ 3.6	19	- 0.6	8	+ 1.2	15
AgriMAXX 444	Red	71.7	35	53.8	13.5	2.8	87.5	29	56.4	13.0	4.5	+ 15.8	35	+ 2.6	24	- 0.5	9	+ 1.7	18
AgriMAXX 446	Red	66.3	55	51.3	13.6	2.5	100.2	5	58.0	12.8	4.5	+ 33.9	2	+ 6.7	3	- 0.8	6	+ 2.0	20
AgriMAXX 447	Red	79.9	7	55.7	13.7	2.8	96.1	13	56.1	13.3	4.0	+ 16.2	33	+ 0.4	42	- 0.4	10	+ 1.2	15
AgriMAXX EXP 1555	Red	75.7	19	52.1	14.2	2.8	96.9	11	56.6	13.2	4.3	+ 21.2	17	+ 4.5	11	- 1.0	4	+ 1.5	17
Diener 491W	Red	75.9	18	56.4	13.4	2.0	97.4	9	55.8	12.9	3.0	+ 21.5	15	- 0.6	50	- 0.5	9	+ 1.0	14
Diener 512	Red	69.3	45	51.2	14.6	3.8	86.2	34	56.3	13.4	6.3	+ 16.9	29	+ 5.1	8	- 1.2	2	+ 2.5	23
Ambassador	White	68.0	49	53.5	12.7	3.5	76.6	60	51.9	11.8	5.5	+ 8.6	58	- 1.6	55	- 0.9	5	+ 2.0	20
Aubrey	White	64.7	62	57.8	14.0	4.8	70.8	72	56.2	13.0	3.8	+ 6.1	66	- 1.6	55	- 1.0	4	- 1.0	2
DF 105R	Red	71.1	38	53.8	12.9	3.8	78.4	57	55.7	12.3	3.5	+ 7.7	62	+ 1.9	30	- 0.6	8	- 0.3	5
DF 109R	Red	66.4	54	51.6	13.9	4.5	82.0	46	54.2	13.3	6.0	+ 15.6	36	+ 2.6	24	- 0.6	8	+ 1.5	17
DF 110W	White	65.4	58	53.9	12.9	2.8	81.2	50	55.3	12.0	4.8	+ 15.8	35	+ 1.4	34	- 0.9	5	+ 2.0	20
DF 111R	Red	73.5	30	56.2	13.2	2.5	81.5	49	57.2	12.8	4.3	+ 8.0	60	+ 1.0	36	- 0.4	10	+ 1.8	19
DF 112R	Red	69.4	44	51.7	13.2	4.0	83.1	43	56.0	12.7	5.5	+ 13.7	43	+ 4.3	13	- 0.5	9	+ 1.5	17
DF 113R	Red	73.8	28	57.6	14.3	3.0	79.4	55	58.1	13.7	5.5	+ 5.6	68	+ 0.5	41	- 0.6	8	+ 2.5	23
DF EX R C	White	66.5	53	54.2	13.7	4.5	76.2	61	53.9	13.1	4.0	+ 9.7	55	- 0.3	47	- 0.6	8	- 0.5	4
DF EX R J-1	Red	60.5	72	49.5	13.4	4.8	78.7	56	57.7	13.0	6.5	+ 18.2	24	+ 8.2	1	- 0.4	10	+ 1.7	18
DF EX R J-2	Red	71.8	34	55.9	13.4	4.3	81.7	47	56.8	12.5	4.3	+ 9.9	54	+ 0.9	37	- 0.9	5	+ 0.0	8
DF EX R J-3	Red	73.9	27	53.8	13.4	3.5	96.5	12	58.1	13.3	3.8	+ 22.6	14	+ 4.3	13	- 0.1	13	+ 0.3	10
DF EX W B-1	White	60.6	71	54.2	13.3	3.5	72.0	69	54.3	12.3	6.5	+ 11.4	50	+ 0.1	45	- 1.0	4	+ 3.0	26
DF EX W B-2	White	56.3	76	56.5	13.7	4.8	66.2	76	58.8	12.8	6.3	+ 9.9	54	+ 2.3	26	- 0.9	5	+ 1.5	17
Sienna	Red	66.0	56	52.3	13.3	4.5	87.3	30	55.9	12.7	6.0	+ 21.3	16	+ 3.6	19	- 0.6	8	+ 1.5	17
Pioneer Brand 25R25	Red	72.2	33	57.1	13.4	2.0	81.6	48	53.0	13.0	3.5	+ 9.4	57	- 4.1	61	- 0.4	10	+ 1.5	17
Pioneer Brand 25R40	Red	73.2	32	54.9	13.5	2.5	92.1	20	59.8	12.8	4.3	+ 18.9	22	+ 4.9	9	- 0.7	7	+ 1.8	19
Pioneer Brand 25R50	Red	74.1	25	53.3	13.5	3.0	91.4	22	56.0	12.7	2.3	+ 17.3	27	+ 2.7	23	- 0.8	6	- 0.7	3
Pioneer Brand 25W31	White	67.4	51	56.6	13.5	2.0	75.5	63	55.0	12.7	2.5	+ 8.1	59	- 1.6	55	- 0.8	6	+ 0.5	11
9223	Red	78.7	11	55.8	13.8	3.5	84.7	38	54.5	13.5	6.3	+ 6.0	67	- 1.3	53	- 0.3	11	+ 2.8	25
9522	Red	69.1	46	53.7	13.7	2.3	81.5	49	51.8	12.9	3.8	+ 12.4	47	- 1.9	57	- 0.8	6	+ 1.5	17
9552	Red	69.5	43	54.2	13.3	2.5	101.6	4	58.7	13.0	3.0	+ 32.1	3	+ 4.5	11	- 0.3	11	+ 0.5	11
9242W	White	80.5	5	55.6	13.5	2.5	97.6	8	56.4	13.1	3.0	+ 17.1	28	+ 0.8	38	- 0.4	10	+ 0.5	11
9362W	White	68.5	47	54.8	13.4	3.3	86.8	32	56.9	13.0	3.0	+ 18.3	23	+ 2.1	28	- 0.4	10	- 0.3	5

## 2015 Michigan State University Wheat Performance Trials (Including Experimentals)

Multi-year data are the most informative.

Table 5 : Single Site: Ingham County, High Management vs Conventional Performance Summary (Note: Tables sorted alphabetically by organization/entry name)

MSU makes no endorsement of any variety or brand.

Name	Grain Color	INGHAM Conventional					INGHAM High Management					Conventional vs. High Management Differences							
		Yield bu/acre	Rank	Test Weight	Grain Moisture	Lodge Score (0-9)	Yield bu/acre	Rank	Test Weight	Grain Moisture	Lodge Score (0-9)	Yield bu/acre	Rank	Test Weight	Rank	Grain Moisture	Rank	Lodge Score (0-9)	Rank
		9491W	White	73.5	30	54.6	13.2	1.8	85.7	36	54.0	12.4	2.8	+ 12.2	48	- 0.6	50	- 0.8	6
Shirley	Red	43.9	80	48.4	11.5	1.8	71.1	71	53.7	12.3	3.3	+ 27.2	6	+ 5.3	7	+ 0.8	15	+ 1.5	17
WX15712	Red	77.8	15	56.2	13.3	3.5	98.0	7	57.6	13.0	4.8	+ 20.2	19	+ 1.4	34	- 0.3	11	+ 1.3	16
HS 284R	Red	71.6	36	57.3	13.5	5.3	86.7	33	54.7	12.8	5.5	+ 15.1	38	- 2.6	59	- 0.7	7	+ 0.2	9
HS EX3	Red	81.2	4	57.9	14.0	4.3	81.7	47	58.5	13.0	6.0	+ 0.5	76	+ 0.6	40	- 1.0	4	+ 1.7	18
HS EX6	Red	76.4	17	54.8	13.6	4.5	99.7	6	57.2	13.3	4.8	+ 23.3	12	+ 2.4	25	- 0.3	11	+ 0.3	10
HS EX7	Red	70.8	40	54.7	14.3	5.8	81.5	49	58.1	13.2	8.0	+ 10.7	52	+ 3.4	20	- 1.1	3	+ 2.2	21
TW528-003	White	68.2	48	56.3	13.8	6.0	76.1	62	54.5	12.7	7.3	+ 7.9	61	- 1.8	56	- 1.1	3	+ 1.3	16
Ava	White	73.3	31	56.9	13.9	5.5	81.0	52	55.7	12.9	5.5	+ 7.7	62	- 1.2	52	- 1.0	4	+ 0.0	8
L-214	Red	69.8	42	54.5	14.0	5.3	104.9	2	60.3	13.3	3.8	+ 35.1	1	+ 5.8	6	- 0.7	7	- 1.5	1
L-232	Red	64.9	61	57.0	13.7	6.3	78.0	58	60.3	13.2	6.8	+ 13.1	45	+ 3.3	21	- 0.5	9	+ 0.5	11
L-241	Red	74.0	26	56.1	14.2	7.3	88.6	26	60.2	13.2	8.3	+ 14.6	40	+ 4.1	15	- 1.0	4	+ 1.0	14
L-264	Red	67.0	52	55.3	13.4	4.3	73.7	67	54.5	13.0	5.3	+ 6.7	65	- 0.8	51	- 0.4	10	+ 1.0	14
L-334	Red	64.7	62	56.1	13.8	7.5	81.0	52	56.2	13.4	7.5	+ 16.3	32	+ 0.1	45	- 0.4	10	+ 0.0	8
L-347	Red	61.8	70	55.0	14.0	6.8	81.0	52	59.2	13.6	8.0	+ 19.2	20	+ 4.2	14	- 0.4	10	+ 1.2	15
L-377	Red	65.8	57	53.8	13.6	4.5	96.9	11	58.6	13.3	4.4	+ 31.1	4	+ 4.8	10	- 0.3	11	- 0.1	7
LCS News	Red	56.1	77	53.3	13.4	6.3	72.2	68	54.0	13.2	6.3	+ 16.1	34	+ 0.7	39	- 0.2	12	+ 0.0	8
AC Mountain	White	65.8	57	53.3	13.1	5.8	69.4	73	53.6	12.2	7.8	+ 3.6	71	+ 0.3	43	- 0.9	5	+ 2.0	20
Hopewell	Red	60.3	73	52.0	13.5	6.0	86.9	31	58.4	12.7	6.3	+ 26.6	8	+ 6.4	5	- 0.8	6	+ 0.3	10
Jupiter	White	69.3	45	54.0	13.0	2.5	86.0	35	56.2	12.5	4.0	+ 16.7	30	+ 2.2	27	- 0.5	9	+ 1.5	17
MCIA 2014034	Red	66.5	53	53.8	14.3	2.3	92.3	19	55.7	13.3	3.1	+ 25.8	9	+ 1.9	30	- 1.0	4	+ 0.8	13
MCIA 7002012	Red	78.4	13	58.0	14.3	3.3	92.6	17	56.0	13.4	4.0	+ 14.2	42	- 2.0	58	- 0.9	5	+ 0.7	12
MCIA 9109	Red	63.7	64	54.9	14.1	4.5	81.1	51	56.7	13.3	6.0	+ 17.4	26	+ 1.8	31	- 0.8	6	+ 1.5	17
MCIA Blazer	Red	84.2	2	61.2	14.2	5.3	83.8	40	60.8	13.1	5.3	- 0.4	77	- 0.4	48	- 1.1	3	+ 0.0	8
MCIA EXP 02444	Red	78.2	14	57.2	13.9	1.8	97.3	10	55.7	13.0	2.5	+ 19.1	21	- 1.5	54	- 0.9	5	+ 0.7	12
MCIA EXP 05247	Red	78.5	12	60.1	14.4	2.0	80.6	53	57.1	13.4	2.3	+ 2.1	74	- 3.0	60	- 1.0	4	+ 0.3	10
MCIA EXP 0762	Red	75.5	20	53.9	13.6	3.0	93.1	16	55.6	12.9	2.5	+ 17.6	25	+ 1.7	32	- 0.7	7	- 0.5	4
MCIA EXP A	Red	62.3	69	51.7	13.0	3.8	65.5	77	53.7	12.1	6.8	+ 3.2	72	+ 2.0	29	- 0.9	5	+ 3.0	26
MCIA Flame	Red	66.5	53	53.0	13.6	2.8	71.6	70	56.4	12.9	4.5	+ 5.1	70	+ 3.4	20	- 0.7	7	+ 1.7	18
MCIA Red Devil	Red	75.3	21	58.0	13.6	3.3	84.9	37	58.5	12.7	5.3	+ 9.6	56	+ 0.5	41	- 0.9	5	+ 2.0	20
MCIA Red Dragon	Red	80.2	6	59.6	13.4	4.3	94.9	14	59.1	12.7	5.3	+ 14.7	39	- 0.5	49	- 0.7	7	+ 1.0	14

## 2015 Michigan State University Wheat Performance Trials (Including Experimentals)

Multi-year data are the most informative.

Table 5 : Single Site: Ingham County, High Management vs Conventional Performance Summary (Note: Tables sorted alphabetically by organization/entry name)

MSU makes no endorsement of any variety or brand.

Name	Grain Color	INGHAM Conventional					INGHAM High Management					Conventional vs. High Management Differences							
		Yield bu/acre	Rank	Test Weight	Grain Moisture	Lodge Score (0-9)	Yield bu/acre	Rank	Test Weight	Grain Moisture	Lodge Score (0-9)	Yield bu/acre	Rank	Test Weight	Rank	Grain Moisture	Rank	Lodge Score (0-9)	Rank
		MCIA Rocket	Red	65.3	59	52.2	13.2	3.8	66.5	75	53.7	12.2	5.3	+ 1.2	75	+ 1.5	33	- 1.0	4
MCIA Venus	White	58.5	74	52.5	12.8	5.5	73.8	66	56.4	12.5	7.0	+ 15.3	37	+ 3.9	16	- 0.3	11	+ 1.5	17
MCIA Whale	Red	81.4	3	54.3	14.0	3.3	83.8	40	58.0	13.1	4.0	+ 2.4	73	+ 3.7	18	- 0.9	5	+ 0.7	12
MSU 5024	White	58.0	75	50.9	12.7	1.8	83.5	41	57.4	12.3	3.0	+ 25.5	10	+ 6.5	4	- 0.4	10	+ 1.2	15
MSU E6012	White	75.2	22	57.0	12.9	4.8	74.7	65	50.4	12.3	4.8	- 0.5	78	- 6.6	62	- 0.6	8	+ 0.0	8
Red Ruby	Red	52.6	79	53.1	12.8	4.0	79.5	54	56.9	12.8	3.3	+ 26.9	7	+ 3.8	17	+ 0.0	14	- 0.7	3
Sunburst	Red	85.6	1	61.4	14.3	1.5	92.4	18	61.1	13.2	3.0	+ 6.8	64	- 0.3	47	- 1.1	3	+ 1.5	17
F0036R	Red	70.9	39	52.7	13.3	2.3	89.1	25	52.9	12.8	2.3	+ 18.2	24	+ 0.2	44	- 0.5	9	+ 0.0	8
F1014	White	63.3	66	51.8	13.4	1.8	82.5	45	54.7	12.6	2.0	+ 19.2	20	+ 2.9	22	- 0.8	6	+ 0.2	9
F1026R	Red	71.1	38	57.0	13.7	3.8	87.5	29	58.8	12.9	6.3	+ 16.4	31	+ 1.8	31	- 0.8	6	+ 2.5	23
F1027	White	62.9	68	55.9	13.7	2.5	83.4	42	58.8	12.8	2.8	+ 20.5	18	+ 2.9	22	- 0.9	5	+ 0.3	10
F2014R	Red	55.5	78	52.5	13.5	5.0	62.4	78	55.2	12.7	6.3	+ 6.9	63	+ 2.7	23	- 0.8	6	+ 1.3	16
F2016	White	70.5	41	54.4	13.5	5.3	77.3	59	56.4	13.1	7.0	+ 6.8	64	+ 2.0	29	- 0.4	10	+ 1.7	18
F2019	White	67.7	50	51.5	13.0	3.5	68.9	74	51.4	12.3	5.3	+ 1.2	75	- 0.1	46	- 0.7	7	+ 1.8	19
F2038	White	63.0	67	53.3	13.2	5.3	74.8	64	55.0	12.5	5.5	+ 11.8	49	+ 1.7	32	- 0.7	7	+ 0.2	9
RS 907	Red	65.1	60	55.6	13.6	2.5	79.5	54	56.2	13.0	5.5	+ 14.4	41	+ 0.6	40	- 0.6	8	+ 3.0	26
RS 910	Red	73.8	28	54.6	13.4	3.0	92.1	20	58.0	13.2	5.3	+ 18.3	23	+ 3.4	20	- 0.2	12	+ 2.3	22
RS 972	Red	79.8	8	55.5	14.0	4.0	89.9	24	55.9	13.3	7.0	+ 10.1	53	+ 0.4	42	- 0.7	7	+ 3.0	26
RS 9XP011	Red	79.1	10	55.3	13.7	2.3	90.1	23	54.8	13.4	5.0	+ 11.0	51	- 0.5	49	- 0.3	11	+ 2.7	24
Steyer Morrin	Red	72.2	33	55.8	13.6	2.8	93.7	15	55.7	13.2	2.5	+ 21.5	15	- 0.1	46	- 0.4	10	- 0.3	5
Steyer STex141	Red	77.7	16	55.8	13.8	2.3	105.2	1	60.2	13.3	4.0	+ 27.5	5	+ 4.4	12	- 0.5	9	+ 1.7	18
SY 007	Red	71.4	37	54.2	14.2	5.0	76.6	60	56.5	12.9	4.3	+ 5.2	69	+ 2.3	26	- 1.3	1	- 0.7	3
SY 474	Red	69.8	42	55.9	14.2	4.0	84.5	39	57.8	13.4	5.0	+ 14.7	39	+ 1.9	30	- 0.8	6	+ 1.0	14
SY 483	Red	75.1	23	55.7	13.2	5.5	83.0	44	56.8	12.7	5.3	+ 7.9	61	+ 1.1	35	- 0.5	9	- 0.2	6
SY 547	Red	74.2	24	57.3	13.8	3.3	86.9	31	57.0	13.5	4.1	+ 12.7	46	- 0.3	47	- 0.3	11	+ 0.8	13
Hilliard	Red	63.6	65	52.5	13.3	2.0	87.9	28	59.6	12.9	3.3	+ 24.3	11	+ 7.1	2	- 0.4	10	+ 1.3	16
VA11W-106	Red	64.4	63	55.7	13.2	2.3	80.6	53	57.7	12.6	4.8	+ 16.2	33	+ 2.0	29	- 0.6	8	+ 2.5	23
W 206	Red	79.2	9	56.5	13.7	3.3	102.3	3	57.3	13.0	3.3	+ 23.1	13	+ 0.8	38	- 0.7	7	+ 0.0	8
<b>MEAN (2015 96 Entries)</b>		<b>69.5</b>		<b>54.8</b>	<b>13.6</b>	<b>3.8</b>	<b>83.8</b>		<b>56.4</b>	<b>12.9</b>	<b>4.8</b>	<b>14.4</b>		<b>1.6</b>		<b>- 0.6</b>		<b>1.0</b>	
<b>LSD (0.05)</b>		<b>8.9</b>		<b>3.2</b>	<b>0.4</b>	<b>1.7</b>	<b>12.4</b>		<b>3.2</b>	<b>0.3</b>	<b>1.7</b>	-----		-----		-----		-----	
<b>CV (%)</b>		<b>11.0</b>		<b>5.0</b>	<b>2.3</b>	<b>37.9</b>	<b>12.7</b>		<b>4.9</b>	<b>1.9</b>	<b>30.8</b>	-----		-----		-----		-----	



2015 Michigan State University Wheat Performance Trials (Including Experimentals)

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Table 6 : Multi-Year Performance Summary (Note: Tables sorted by 2015 Yield, red wheats grouped before white)

Name	Grain Color	Percent Flour Yield Multi-Year Averages				Percent Protein In Flour (at 14%) Multi-Year Averages				Milling and Baking Properties (2014 Crop and Earlier) Softness Equivalent Percent Multi-Year Averages				Cookie Diameter (cm) Multi-Year Averages				Whole Grain Protein (at 12%) Multi-Year Averages			
		2 YR	3 YR	4 YR		2 YR	3 YR	4 YR		2 YR	3 YR	4 YR		2 YR	3 YR	4 YR		2 YR	3 YR	4 YR	
		2014	2013-14	2012-14	2011-14	2014	2013-14	2012-14	2011-14	2014	2013-14	2012-14	2011-14	2014	2013-14	2012-14	2011-14	2014	2013-14	2012-14	2011-14
9522	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L-241	Red	68.5	----	----	----	8.5	----	----	----	56.6	----	----	----	18.5	----	----	----	10.5	----	----	----
RS 9XP011	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SY 007	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
9223	Red	70.3	70.7	71.3	----	8.2	7.5	7.0	----	60.3	62.0	63.5	----	19.4	19.4	19.4	----	10.5	9.8	9.1	----
Diener 512	Red	70.5	70.9	----	----	8.8	7.9	----	----	58.8	62.1	----	----	19.0	19.1	----	----	10.9	10.0	----	----
MCIA 7002012	Red	70.2	70.1	----	----	9.4	8.6	----	----	57.0	59.1	----	----	18.2	18.5	----	----	11.7	10.9	----	----
Pioneer Brand 25R25	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L-334	Red	69.8	----	----	----	8.4	----	----	----	54.5	----	----	----	18.0	----	----	----	10.8	----	----	----
DF EX R J-1	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
DF EX R J-2	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MCIA EXP A	Red	67.8	67.4	----	----	8.1	7.5	----	----	54.4	57.1	----	----	17.9	18.0	----	----	10.2	9.5	----	----
DF 109R	Red	70.3	70.9	71.3	----	8.3	7.4	7.1	----	60.3	62.8	63.8	----	19.0	19.0	19.0	----	10.3	9.6	9.1	----
DF 105R	Red	69.9	70.4	70.7	71.1	9.0	8.1	7.6	7.2	56.0	57.3	58.1	58.7	18.7	18.9	19.0	19.2	11.3	10.4	9.6	9.1
Hilliard	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Sienna	Red	70.2	70.6	----	----	8.7	7.9	----	----	58.7	60.1	----	----	18.7	18.6	----	----	11.3	10.6	----	----
HS EX7	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MCIA EXP 02444	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MCIA Red Devil	Red	67.6	68.2	68.2	68.4	8.5	7.9	7.4	7.1	55.8	57.9	59.5	60.8	18.3	18.5	18.6	18.8	10.7	10.2	9.4	8.9
HS 284R	Red	70.5	70.6	----	----	8.7	7.9	----	----	58.1	59.9	----	----	18.4	18.3	----	----	10.9	10.3	----	----
MCIA Rocket	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
RS 907	Red	68.2	68.8	----	----	8.7	7.7	----	----	54.4	57.1	----	----	18.0	18.2	----	----	11.1	10.0	----	----
L-232	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
SY 547	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MCIA 2014034	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LCS News	Red	70.0	70.8	----	----	8.3	7.5	----	----	58.7	61.0	----	----	18.1	18.0	----	----	10.9	10.0	----	----
F0036R	Red	70.7	71.1	71.2	----	8.2	7.6	7.1	----	60.0	61.0	61.5	----	18.5	18.6	18.6	----	10.6	10.2	9.3	----
L-264	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
VA11W-106	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Hopewell	Red	67.4	67.8	68.1	68.2	8.7	8.0	7.5	7.3	58.8	60.1	60.7	60.7	18.3	18.4	18.5	18.8	11.4	10.8	10.0	9.7
DF 113R	Red	69.8	----	----	----	7.9	----	----	----	56.5	----	----	----	18.5	----	----	----	9.9	----	----	----

2015 Michigan State University Wheat Performance Trials (Including Experimentals)

Multi-year data are the most informative.  
MSU makes no endorsement of any variety or brand.

Table 6 : Multi-Year Performance Summary (Note: Tables sorted by 2015 Yield, red wheats grouped before white)

Name	Grain Color	Percent Flour Yield Multi-Year Averages				Percent Protein In Flour (at 14%) Multi-Year Averages				Milling and Baking Properties (2014 Crop and Earlier) Softness Equivalent Percent Multi-Year Averages				Cookie Diameter (cm) Multi-Year Averages				Whole Grain Protein (at 12%) Multi-Year Averages			
		2 YR	3 YR	4 YR	2014	2 YR	3 YR	4 YR	2014	2 YR	3 YR	4 YR	2014	2 YR	3 YR	4 YR	2014	2 YR	3 YR	4 YR	
		2013-14	2012-14	2011-14	2013-14	2012-14	2011-14	2013-14	2012-14	2011-14	2013-14	2012-14	2011-14	2013-14	2012-14	2011-14	2013-14	2012-14	2011-14		
MCIA Flame	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Shirley	Red	69.9	70.0	70.0	70.1	8.7	8.0	7.5	7.3	53.3	55.3	55.9	56.3	18.2	18.6	18.8	19.1	11.3	10.6	9.9	9.6
MCIA EXP 05247	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L-347	Red	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Red Ruby	Red	68.8	69.3	69.6	69.7	8.9	8.1	7.5	7.3	58.2	60.8	61.9	62.1	18.2	18.4	18.6	18.8	11.3	10.6	9.8	9.5
F2014R	Red	68.0	----	----	----	9.0	----	----	----	56.9	----	----	----	17.7	----	----	----	11.6	----	----	----
9242W	White	68.5	68.8	69.1	69.3	8.4	7.9	7.3	7.0	56.8	58.2	60.0	60.6	18.8	18.9	19.1	19.3	10.5	10.2	9.4	9.1
Jupiter	White	70.2	70.6	71.0	71.2	8.5	7.7	6.9	6.6	56.7	59.6	60.9	61.6	18.0	18.4	18.7	18.9	11.1	10.1	9.1	8.6
Ambassador	White	71.5	71.7	72.1	72.4	8.9	7.9	7.3	7.0	54.7	58.1	59.8	60.4	18.5	18.8	19.1	19.2	11.0	10.3	9.4	9.1
F2016	White	68.1	----	----	----	8.7	----	----	----	57.2	----	----	----	17.9	----	----	----	10.8	----	----	----
DF EX W B-1	White	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Aubrey	White	68.5	69.2	69.5	69.9	9.2	8.4	7.8	7.6	59.2	60.6	61.4	60.7	17.7	18.2	18.2	18.3	11.5	10.8	10.1	9.8
DF EX R C	White	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MSU E6012	White	70.5	70.9	71.2	71.4	8.5	7.7	7.3	7.1	57.1	60.6	61.6	61.9	18.7	18.6	18.8	19.0	11.0	10.2	9.4	9.2
AC Mountain	White	70.3	71.0	70.9	71.0	8.1	7.5	7.0	6.9	57.1	59.6	60.8	60.8	19.0	19.1	19.1	19.2	11.0	10.0	9.2	8.9
F1027	White	66.2	----	67.7	----	8.8	----	7.7	----	59.4	----	60.6	----	17.5	----	18.1	----	11.6	----	9.9	----
TW528-003	White	69.8	----	----	----	8.6	----	----	----	58.7	----	----	----	18.1	----	----	----	11.0	----	----	----
DF 110W	White	71.7	72.0	71.8	----	9.3	8.3	7.9	----	55.0	56.5	57.3	----	18.4	18.6	18.6	----	11.4	10.7	10.1	----
Pioneer Brand 25W31	White	67.1	----	----	----	9.2	----	----	----	54.3	----	----	----	18.2	----	----	----	11.5	----	----	----
9491W	White	70.0	----	----	----	9.1	----	----	----	54.7	----	----	----	18.4	----	----	----	11.6	----	----	----
DF EX W B-2	White	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MCIA Venus	White	69.8	71.0	71.1	----	8.8	7.8	7.2	----	53.4	55.9	57.2	----	17.9	18.3	18.2	----	10.7	9.9	9.2	----
Ava	White	70.0	70.0	69.9	70.0	8.6	8.0	7.3	7.0	57.6	60.0	62.0	62.5	18.8	18.7	18.9	19.1	10.9	10.2	9.3	8.9
9362W	White	68.6	69.2	----	----	8.4	8.1	----	----	53.5	55.0	----	----	18.4	18.6	----	----	11.0	10.8	----	----
F1014	White	67.9	----	67.5	----	8.8	----	7.6	----	50.9	----	53.6	----	18.1	----	18.2	----	11.4	----	9.9	----
F2038	White	67.0	----	----	----	9.2	----	----	----	58.2	----	----	----	18.4	----	----	----	11.6	----	----	----
MSU 5024	White	69.4	----	----	----	9.0	----	----	----	53.5	----	----	----	17.9	----	----	----	11.8	----	----	----
F2019	White	70.1	----	----	----	9.2	----	----	----	56.3	----	----	----	18.0	----	----	----	11.7	----	----	----
<b>MEAN (2015 96 Entries)</b>		<b>69.0</b>	<b>69.9</b>	<b>70.1</b>	<b>70.1</b>	<b>8.7</b>	<b>7.8</b>	<b>7.3</b>	<b>7.1</b>	<b>56.4</b>	<b>58.7</b>	<b>59.5</b>	<b>60.4</b>	<b>18.2</b>	<b>18.5</b>	<b>18.7</b>	<b>18.9</b>	<b>11.1</b>	<b>10.2</b>	<b>9.5</b>	<b>9.2</b>
<b>LSD (0.05)</b>		----	<b>1.0</b>	<b>0.8</b>	<b>1.2</b>	----	<b>0.6</b>	<b>0.4</b>	<b>0.3</b>	----	<b>2.1</b>	<b>2.1</b>	<b>3.0</b>	----	<b>0.5</b>	<b>0.4</b>	<b>0.4</b>	----	<b>0.6</b>	<b>0.5</b>	<b>0.4</b>
<b>CV (%)</b>		----	<b>0.7</b>	<b>0.7</b>	<b>1.2</b>	----	<b>3.8</b>	<b>3.4</b>	<b>3.2</b>	----	<b>1.7</b>	<b>2.2</b>	<b>3.5</b>	----	<b>1.3</b>	<b>1.4</b>	<b>1.5</b>	----	<b>2.7</b>	<b>3.1</b>	<b>2.9</b>



2015 Michigan State University Wheat Performance Trials (Including Experimentals)

Multi-year data are the most informative.

Table 7 : Multi-Year Performance Summary (Note: Tables sorted by 2015 Yield, red wheats grouped before white)

MSU makes no endorsement of any variety or brand.

Name	Grain Color	Water SRC (%)				Sodium Carbonate SRC (%)				Milling and Baking Properties (2014 Crop and Earlier)				As Is Lactic Acid SRC (%)				Whole Grain Hardness (0-100)				
		Multi-Year Averages				Multi-Year Averages				Sucrose SRC (%)				Multi-Year Averages				Multi-Year Averages				
		2014	2 YR	3 YR	4 YR	2014	2 YR	3 YR	4 YR	2014	2 YR	3 YR	4 YR	2014	2 YR	3 YR	4 YR	2014	2 YR	3 YR	4 YR	
9522	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
L-241	Red	57.2	-----	-----	-----	78.1	-----	-----	-----	103.2	-----	-----	-----	125.8	-----	-----	-----	-----	26.4	-----	-----	-----
RS 9XP011	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
SY 007	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
9223	Red	52.0	51.2	51.5	-----	69.6	67.0	66.5	-----	82.6	80.3	80.5	-----	108.0	100.8	100.3	-----	25.0	20.3	16.2	-----	
Diener 512	Red	51.8	50.8	-----	-----	68.5	66.2	-----	-----	84.2	81.6	-----	-----	108.7	102.8	-----	-----	30.2	22.9	-----	-----	
MCIA 7002012	Red	51.9	51.2	-----	-----	67.1	65.4	-----	-----	87.6	86.7	-----	-----	101.5	95.0	-----	-----	20.6	18.5	-----	-----	
Pioneer Brand 25R25	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
L-334	Red	55.7	-----	-----	-----	74.4	-----	-----	-----	91.7	-----	-----	-----	123.8	-----	-----	-----	28.4	-----	-----	-----	
DF EX R J-1	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
DF EX R J-2	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
MCIA EXP A	Red	58.0	55.9	-----	-----	73.8	70.6	-----	-----	93.5	92.3	-----	-----	79.6	94.0	-----	-----	22.6	17.1	-----	-----	
DF 109R	Red	52.8	51.8	51.6	-----	69.9	67.1	66.4	-----	86.2	81.7	80.7	-----	114.5	104.6	103.0	-----	26.7	20.1	16.6	-----	
DF 105R	Red	53.8	52.3	52.2	52.3	69.6	67.3	67.1	67.1	84.4	81.4	80.8	81.1	94.3	86.1	86.3	84.1	31.2	27.7	25.7	23.6	
Hilliard	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Sienna	Red	54.7	52.8	-----	-----	71.2	68.0	-----	-----	89.7	86.7	-----	-----	105.1	95.6	-----	-----	14.0	12.7	-----	-----	
HS EX7	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
MCIA EXP 02444	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
MCIA Red Devil	Red	57.2	55.3	55.1	55.3	75.1	71.1	70.5	69.8	92.7	89.7	89.1	87.3	103.8	95.7	94.4	92.4	36.4	31.4	26.8	23.3	
HS 284R	Red	56.5	53.5	-----	-----	73.6	68.6	-----	-----	88.2	86.5	-----	-----	104.3	94.3	-----	-----	9.9	12.0	-----	-----	
MCIA Rocket	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
RS 907	Red	57.3	55.8	-----	-----	74.0	70.6	-----	-----	92.0	88.6	-----	-----	118.4	106.3	-----	-----	31.7	25.6	-----	-----	
L-232	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
SY 547	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
MCIA 2014034	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
LCS News	Red	55.5	54.2	-----	-----	73.4	70.5	-----	-----	88.1	86.0	-----	-----	115.4	107.8	-----	-----	24.4	20.3	-----	-----	
F0036R	Red	55.5	54.0	54.1	-----	72.0	69.1	68.4	-----	81.7	81.2	80.7	-----	90.3	84.3	80.8	-----	16.6	15.5	13.3	-----	
L-264	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
VA11W-106	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Hopewell	Red	57.1	54.5	54.4	54.5	76.6	72.6	71.5	70.9	92.3	89.0	87.3	86.1	109.7	103.1	102.8	102.3	21.7	22.5	20.7	19.3	
DF 113R	Red	59.0	-----	-----	-----	76.4	-----	-----	-----	88.3	-----	-----	-----	114.3	-----	-----	-----	31.9	-----	-----	-----	



**2015 Michigan State University Wheat Performance Trials** (Including Experimentals)

Multi-year data are the most informative.  
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Table 7 : Multi-Year Performance Summary (Note: Tables sorted by 2015 Yield, red wheats grouped before white)

Name	Grain Color	Water SRC (%)				Sodium Carbonate SRC (%)				Milling and Baking Properties (2014 Crop and Earlier)				As Is Lactic Acid SRC (%)				Whole Grain Hardness (0-100)			
		Multi-Year Averages				Multi-Year Averages				Sucrose SRC (%)				Multi-Year Averages				Multi-Year Averages			
		2 YR	3 YR	4 YR	2011-14	2 YR	3 YR	4 YR	2011-14	2014	2013-14	2012-14	2011-14	2014	2013-14	2012-14	2011-14	2014	2013-14	2012-14	2011-14
MCIA Flame	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Shirley	Red	56.7	55.1	55.0	55.4	73.1	70.8	70.4	70.4	84.3	85.4	85.8	85.9	88.2	84.3	81.9	81.0	21.1	22.7	21.6	20.2
MCIA EXP 05247	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
L-347	Red	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Red Ruby	Red	55.3	53.5	53.4	53.7	74.0	71.4	70.2	69.5	91.1	87.3	86.3	85.5	116.5	107.2	102.8	101.8	21.8	17.4	14.2	12.4
F2014R	Red	58.4	-----	-----	-----	73.1	-----	-----	-----	88.1	-----	-----	-----	115.6	-----	-----	-----	29.3	-----	-----	-----
9242W	White	55.7	54.0	54.5	54.4	73.0	69.2	68.7	68.2	85.0	83.5	82.7	82.7	110.8	101.4	95.4	93.1	25.9	20.2	14.7	11.6
Jupiter	White	55.0	53.7	54.1	54.6	73.5	70.6	70.0	69.5	88.0	85.2	83.8	83.0	103.4	96.0	91.6	90.3	27.2	21.0	17.4	15.4
Ambassador	White	53.0	51.4	51.5	51.6	70.5	66.9	66.1	66.1	84.1	80.8	79.8	79.9	96.4	87.8	86.3	84.4	18.8	12.2	8.1	5.0
F2016	White	62.1	-----	-----	-----	73.9	-----	-----	-----	88.4	-----	-----	-----	131.1	-----	-----	-----	28.8	-----	-----	-----
DF EX W B-1	White	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Aubrey	White	53.4	52.2	52.5	52.7	73.7	69.9	69.1	69.3	92.4	88.1	86.4	86.7	113.2	104.6	100.8	99.5	24.4	18.8	15.3	13.9
DF EX R C	White	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
MSU E6012	White	56.4	53.6	53.3	53.3	69.9	67.4	67.1	66.5	85.9	83.4	83.2	82.4	107.4	100.3	98.5	97.3	19.1	17.8	16.5	15.9
AC Mountain	White	52.1	51.4	51.3	51.3	70.9	67.4	66.1	65.7	83.5	80.3	79.9	79.9	88.1	82.0	82.0	81.2	23.7	16.7	14.2	11.7
F1027	White	53.8	-----	53.6	-----	77.8	-----	73.1	-----	91.6	-----	88.7	-----	101.7	-----	91.7	-----	29.5	-----	18.5	-----
TW528-003	White	54.8	-----	-----	-----	73.2	-----	-----	-----	86.8	-----	-----	-----	101.9	-----	-----	-----	24.5	-----	-----	-----
DF 110W	White	53.5	52.8	52.9	-----	70.3	67.4	67.1	-----	84.4	82.6	82.6	-----	94.3	87.1	84.7	-----	30.5	24.4	21.5	-----
Pioneer Brand 25W31	White	54.3	-----	-----	-----	72.5	-----	-----	-----	88.6	-----	-----	-----	94.4	-----	-----	-----	33.9	-----	-----	-----
9491W	White	57.5	-----	-----	-----	73.5	-----	-----	-----	87.5	-----	-----	-----	101.2	-----	-----	-----	24.3	-----	-----	-----
DF EX W B-2	White	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
MCIA Venus	White	60.3	56.3	56.0	-----	73.6	70.2	70.1	-----	89.0	85.9	85.8	-----	88.1	83.1	82.9	-----	31.9	23.7	20.6	-----
Ava	White	52.1	50.8	51.1	51.5	69.7	66.6	65.9	65.6	85.5	82.5	81.7	81.7	80.2	75.8	76.6	76.5	24.8	18.4	12.4	9.4
9362W	White	58.5	55.5	-----	-----	70.1	68.6	-----	-----	85.8	85.7	-----	-----	95.5	92.6	-----	-----	20.5	17.8	-----	-----
F1014	White	58.3	-----	56.6	-----	70.9	-----	69.2	-----	83.0	-----	82.9	-----	71.4	-----	68.8	-----	43.5	-----	27.3	-----
F2038	White	55.4	-----	-----	-----	71.5	-----	-----	-----	84.0	-----	-----	-----	108.7	-----	-----	-----	25.3	-----	-----	-----
MSU 5024	White	58.6	-----	-----	-----	73.4	-----	-----	-----	89.8	-----	-----	-----	99.5	-----	-----	-----	33.5	-----	-----	-----
F2019	White	52.6	-----	-----	-----	71.8	-----	-----	-----	85.0	-----	-----	-----	96.1	-----	-----	-----	23.3	-----	-----	-----
<b>MEAN (2015 96 Entries)</b>		<b>56.0</b>	<b>53.8</b>	<b>53.5</b>	<b>53.7</b>	<b>73.0</b>	<b>69.4</b>	<b>68.6</b>	<b>68.5</b>	<b>89.0</b>	<b>85.9</b>	<b>84.7</b>	<b>84.1</b>	<b>104.8</b>	<b>96.6</b>	<b>93.4</b>	<b>90.5</b>	<b>26.8</b>	<b>21.1</b>	<b>18.2</b>	<b>15.4</b>
<b>LSD (0.05)</b>		-----	<b>2.4</b>	<b>1.6</b>	<b>1.8</b>	-----	<b>2.4</b>	<b>1.6</b>	<b>2.3</b>	-----	<b>3.6</b>	<b>2.7</b>	<b>3.5</b>	-----	<b>12.6</b>	<b>6.5</b>	<b>5.6</b>	-----	<b>7.8</b>	<b>5.8</b>	<b>5.9</b>
<b>CV (%)</b>		-----	<b>2.2</b>	<b>1.8</b>	<b>2.3</b>	-----	<b>1.7</b>	<b>1.4</b>	<b>2.3</b>	-----	<b>2.1</b>	<b>1.9</b>	<b>3.0</b>	-----	<b>6.4</b>	<b>4.2</b>	<b>4.3</b>	-----	<b>18.3</b>	<b>19.3</b>	<b>26.9</b>

**ORGANIZATIONS PARTICIPATING IN THE 2015  
MICHIGAN STATE UNIVERSITY WHEAT PERFORMANCE TRIALS**

AgriMAXX Wheat Company

AgriMAXX 413  
AgriMAXX 438  
AgriMAXX 444  
AgriMAXX 446  
AgriMAXX 447  
AgriMAXX EXP 1555

BioTown Seeds

Diener 491W  
Diener 512

Crop Production Services

9223  
9522  
9552  
9242W  
9362W  
9491W  
Shirley  
WX15712

D.F. Seeds, Inc.

Ambassador  
Aubrey  
DF 105R  
DF 109R  
DF 110W  
DF 111R  
DF 112R  
DF 113R  
DF EX R C  
DF EX R J-1  
DF EX R J-2  
DF EX R J-3  
DF EX W B-1  
DF EX W B-2  
Sienna

DuPont Pioneer

Pioneer Brand 25R25  
Pioneer Brand 25R40  
Pioneer Brand 25R50  
Pioneer Brand 25W31

Harrington Seeds, Inc.

HS 284R  
HS EX3  
HS EX6  
HS EX7  
TW528-003

Hyland Seeds

Ava

Irrer Seed Farm

L-214  
L-232  
L-241  
L-264  
L-334  
L-347  
L-377  
LCS News

Rupp Seeds, Inc.

RS 907  
RS 910  
RS 972  
RS 9XP011

Steyer Seeds

Steyer Morrin  
Steyer STex141

Syngenta Cereals

SY 007  
SY 474  
SY 483  
SY 547

Virginia Tech / VCIA

Hilliard  
VA11W-106

Wellman Seeds, Inc.

W 206

Michigan Crop

Improvement Association

AC Mountain  
Hopewell  
Jupiter  
MCIA 2014034  
MCIA 7002012  
MCIA 9109  
MCIA Blazer  
MCIA EXP 02444  
MCIA EXP 05247  
MCIA EXP 0762  
MCIA EXP A  
MCIA Flame  
MCIA Red Devil  
MCIA Red Dragon  
MCIA Rocket  
MCIA Venus  
MCIA Whale  
MSU 5024  
MSU E6012  
Red Ruby  
Sunburst

Michigan State University

F0036R  
F1014  
F1026R  
F1027  
F2014R  
F2016  
F2019  
F2038

**ORGANIZATIONS PARTICIPATING IN THE 2015  
MICHIGAN STATE UNIVERSITY WHEAT PERFORMANCE TRIALS**

AgriMAXX Wheat Company  
7167 Highbanks Road  
Mascoutah, IL 62258  
Phone: 855-629-9432

Irrer Seed Farm  
9621 Dexter Trail  
Fowler, MI 48835  
Phone: 989-593-3453

BioTown Seeds  
P.O. Box 299  
Reynolds, IN 47980  
Phone: 219-984-6038

Michigan Crop Improvement  
Association  
2905 Jolly Road  
Okemos, MI 48864  
Phone: 517-332-3546

Crop Production Services  
4648 S. Garfield Rd.  
Auburn, MI 48611  
989-751-1324

Rupp Seeds, Inc.  
17919 Co Rd. B  
Wauseon, OH 43567  
Phone: 419-337-1841

D.F. Seeds, Inc.  
P.O. Box 159  
905 S. Jackson St.  
Dansville, MI 48819  
Phone: 517-623-6161

Steyer Seeds  
P.O. Box 209  
Old Fort, OH 44861  
Phone: 419-355-6708

DuPont Pioneer  
59 Greif Parkway, Suite 200  
Delaware, OH 43015  
Phone: 740-657-6132

AgriPro/Syngenta Cereals  
806 - N. 2nd Street  
Berthoud, CO 80513  
Phone: 970-214-4075

Harrington Seeds, Inc.  
2586 Bradleyville Road  
Reese, MI 48757  
Phone: 989-868-4750

Virginia Tech / VCIA  
2229 Menokin Road  
Warsaw, VA 22572  
Phone: 804-333-3485

Hyland Seeds  
5 Hyland Drive  
Blenheim, Ontario N0PIA0  
Phone: 519-676-8146

Wellman Seeds, Inc.  
23778 Delphos Jennings Road  
Delphos, OH 45833  
Phone: 419-695-9010

# MICHIGAN STATE UNIVERSITY

## WHEAT BREEDING AND GENETICS

Department of Plant Soil And Microbial Sciences  
1066 Bogue Street Room A382  
East Lansing, Michigan 48824-1325

Dr. Eric Olson, Wheat Breeder  
(517) 353-0142  
Email: [eolson@msu.edu](mailto:eolson@msu.edu)

Attached is an entry form for the 2015-16 Michigan State University Wheat Performance Trials. Participation of all wheat seed marketing companies is encouraged in order to provide Michigan farmers a representation of all available varieties. If you would like to enter, please complete and e-mail the entry form by **Friday, August 28, 2015**. **Entry forms will only be accepted by e-mail to Lee Siler at [siler@msu.edu](mailto:siler@msu.edu).**

**Twenty-one pounds (21 lb.)** of treated seed is required. **The entry fee is \$750 per variety entered.** Seed must be delivered on or before **Tuesday, September 1, 2015** to guarantee entry, as time is needed to package and prepare the seed for a timely planting. **A 10% handling fee, of \$75, will be added to any entries included in the trial for which seed is received after September 1. An additional 10% will be added for each week past September 1.**

**Trial Design:** Five trial sites will be planted in *Huron, Ingham, Lenawee, Sanilac, and Tuscola* counties. Each entry will be planted in three replications at each location. Intensive high management practices will be applied at trial locations including a split application of nitrogen and two fungicide applications. Additional conventionally managed sites will be planted at Ingham and Tuscola counties. Plots will be planted using a precision research plot planter. Six rows will be spaced at 7.5 inches. Plots will be planted on eighteen-foot centers at a within-plot seeding rate of 2.0 million seeds per acre, and will be trimmed to a harvest length of twelve feet. Harvest will be done mechanically using a plot combine, which includes a Harvest Master Grain Gauge for recording plot weight, test weight, and harvest moisture.

**Data:** From all five trial locations, data will be provided on *yield, test weight, and harvest moisture*. From selected locations, data will be provided on *plant height, lodging and flowering date*. Fungal disease data will be collected at the Ingham county conventionally managed site. Viral and Bacterial disease data will be collected where available. Two-year, three-year, and four-year average of yield and test weight will be reported for previous entries. Data on Fusarium Head Blight resistance will be provided from an inoculated and misted nursery with heavy disease pressure. FHB data will include Incidence, Severity, FHB Index and DON (vomitoxin) levels. Data on milling and baking properties will also be provided. Final results are published as soon as possible after harvest. Michigan Farm Bureau will publish the report in "Michigan Farm News". Data will be available in .pdf and .xlsx formats at <http://www.varietytrials.msu.edu/wheat> and <http://www.miwheat.org/>.

<b>ENTRY:</b>	<b>PAYMENT:</b>	<b>SEED SHIPMENT:</b>	<b>CONTACT:</b>
Email entry form to Lee Siler: <a href="mailto:siler@msu.edu">siler@msu.edu</a>	Michigan State University Attn: Lee Siler Dept. of PSMS 1066 Bogue Street East Lansing, MI 48824	Crop Science Field Lab Attn: Lee Siler 4450 Beaumont Road Lansing, MI 48910 <b>Note: Seed must be received by September 1 to avoid a 10% per week handling fee.</b>	Questions can be directed to Dr. Eric Olson: <a href="mailto:eolson@msu.edu">eolson@msu.edu</a> 517-353-0142

## 2015-16 MICHIGAN STATE UNIVERSITY STATE WHEAT PERFORMANCE TRIAL : ENTRY FORM

**\*PLEASE NOTE:** This entry form will only be accepted by email to [siler@msu.edu](mailto:siler@msu.edu). Faxed and postal service entry forms will not be accepted.  
 You will receive a confirmation email that it was received as verification.

**Contact Information:**

Your Name: \_\_\_\_\_  
 Company Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 E-mail: \_\_\_\_\_

**Invoice Information: (Where to Send Invoice)**

Name: \_\_\_\_\_  
 Company Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 E-mail: \_\_\_\_\_

**NOTE**

This form must be returned by  
**Friday Aug 28** to guarantee space in  
 the trial. If you need to make decisions  
 later than this please contact Dr. Eric  
 Olson at [eolson@msu.edu](mailto:eolson@msu.edu) or (517)  
 353-0142.

Full Company Name (For display on the report):

(Please Be Exact. This is What Will Be Displayed on the Report): \_\_\_\_\_

Acceptable abbreviation for company name (For display on the report): \_\_\_\_\_

**VARIETIES OR LINES SUBMITTED FOR TESTING: (CIRCLE WHERE APPROPRIATE)**

VARIETY NAME <small>(Please Be Exact-For Display in Tables)</small>	OTHER NAMES	GRAIN COLOR		Commercially Avail. Fall 2015?		SEED TREATMENT <small>(NOT OPTIONAL - MUST BE DISCLOSED FULLY)</small>	INCLUDE RESULTS IN PUBLISHED REPORTS?	
		RED	WHITE	YES	NO		YES	NO
		RED	WHITE	YES	NO		YES	NO
		RED	WHITE	YES	NO		YES	NO
		RED	WHITE	YES	NO		YES	NO
		RED	WHITE	YES	NO		YES	NO
		RED	WHITE	YES	NO		YES	NO
		RED	WHITE	YES	NO		YES	NO
		RED	WHITE	YES	NO		YES	NO
		RED	WHITE	YES	NO		YES	NO

Fees are \$750 per entry. Return this form by fax or e-mail by Friday Aug. 28 to guarantee space in the trial.

Five yield trial sites and one scab inoculated nursery will be targeted for the 2014-15 planting season.

9.5 kgs (21 lbs.) of **TREATED** seed of each entry delivered by **TUESDAY SEPT. 1, 2015.** (After September 1 will incur a 10% per week handling fee.)

Make checks **PAYABLE TO: MICHIGAN STATE UNIVERSITY**

**MAIL PAYMENTS :**

Michigan State University  
 Attn: Lee Siler  
 Dept. of PSMS  
 1066 Bogue Street; 286 PSSB  
 East Lansing, MI 48824-1325

**ENTRY FORMS ACCEPTED BY E-MAIL ONLY**

**ON OR BEFORE AUGUST 28**  
[siler@msu.edu](mailto:siler@msu.edu)

**MAIL SEED TO:**

Crop Science Field Lab  
 Attn: Lee Siler  
 4450 Beaumont Road  
 Lansing, MI 48910

**\*If you have any questions please contact Dr. Eric Olson at [eolson@msu.edu](mailto:eolson@msu.edu) or 517-353-0142**

**Note: Seed must be received by  
 September 1 to guarantee entry and  
 avoid a 10% per week handling fee.**