

Michigan State Wheat Performance Trials: 2006

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Comments on the 2006 Wheat Crop

The 2006 wheat harvest yields were generally higher than average. The major portion of the wheat in the state was rated good to excellent throughout the growing season. Early harvested fields reported excellent quality and test weights. As harvest progressed, rain showers delayed harvest, resulting in sprouting and lower test weights. Leaf rust, pre-harvest sprouting, and lodging, individually or in combination, did cause low test weights in some instances. Fusarium Head Blight does not appear to have been a significant factor this year. With the exception of leaf rust, disease pressure was light to moderate. Stripe rust was reported in the south-west part of the state.

Multi-Year Performance Summary (Tables 1 and 2)

Tables 1 and 2 summarize performance of 59 varieties and experimental lines from 12 organizations including the Michigan State University wheat breeding program. Attached to this narrative is a list of the names and contact information for those organizations. Each line in these tables has data for a single entry. The columns contain averages for a given trait and time period. Data for several 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 and 2 are sorted first by entry grain color, and then in descending order on yield for 2006. In some instances (e.g. yield), data columns to the right of the 2006 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 both tables is the 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. The CV is indicative of a trial's precision. Trials with low levels of error variation have lower CV values. Traits for which scores on a 0-9 scale are employed generally have very high CV values.

Single Site Yield Performance Summary (Table 3)

Table 3 contains yield and test weight data from each of the five sites harvested for yield in 2006. Each row in the table represents a single entry in the test. It is recommended that single site / single year data should not be used to make variety choice decisions.

Choosing Varieties

Growers should be aware that the grain of varieties with equal yield and test weight are not necessarily of equal value when delivered for sale. DON content and shriveled grain can result in significant discounts at the point of sale. This report provides across site and single site data for test weight which gives some indication of the degree to which a variety avoided shriveled grain. It is, however, possible for two varieties to have identical and acceptable test weight but differ in degree of grain shriveling.

Although wheat producers are always interested in how varieties perform in a given year and location, performance in a single year and location should never be used in selecting a variety to plant. It is best to select a variety on the basis of data from at least three years of testing. Varieties selected with such comparisons are more likely to perform well under a wide range of conditions. In any given year or at any given site, several varieties will usually fall into the group of 'highest yielding' varieties. The composition of that group, and the identity of the absolute "winner", can and does change from location to location and year to year. This means that the single best variety cannot be determined in advance for a specific site. However, you can identify a group of varieties that is likely to contain the winners in the upcoming season. We recommend that you plant two or more varieties, and where possible, choose varieties which will flower at different times in order to reduce the risk of scab infection which is most likely to occur when rain coincides with flowering.

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

Experimental

The 2006 State Wheat Performance Trial entries were planted at eight sites in 6 counties: Huron, Lenawee, Saginaw, Sanilac, Midland, and Ingham. Two of the Ingham sites were used for disease screening or other observations but not yield. The Ingham county site targeted for yield data was not harvested due to the atypical lodging that occurred. Appendix A (below) presents information on each of these sites. Plots were 12 feet long and had 6 rows at 7.5" row spacing. The trial was designed and executed as four replication alpha-lattice (10 blocks of 7 plots each) at all sites except the Ingham observation and scab screening nursery. 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. No foliar fungicides were applied at any site. Weeds were chemically controlled as needed. All plots at a site were harvested on a single day. Yield was calculated using the entire area of the plot including the wheel tracks between plots. This approach tends to underestimate yield.

Yield, test weight, and grain moisture data were acquired electronically on the plot combine at the time of harvest. Yield data is standardized to 13% moisture. Data reported as scores are based on a 0-9 scale, where 0 is the best possible score. Plant height is reported as the distance in inches from the ground to the tip of average heads in a plot. Plant height data was obtained from the Ingham, Lenawee, and Midland county sites. Flowering date data was obtained at the Midland and Ingham observation site. 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. Leaf blotch complex disease scores were taken at the Ingham and Midland County plots. The causal organism(s) of the leaf blotching were not identified, but were likely a combination of *Stagonospora tritici*, (formerly known as *Septoria tritici*), and *S. nordorum*. Sprouting data is based on greenhouse evaluation of 5 heads from four replications at the Saginaw and Midland county sites. Heads were collected within 48 hours of harvest and dried

for seven days. Scores were taken after the heads were subjected to near-continuous misting for four days. A score of zero indicates that sprouting was not present. Lodging scores of zero indicate all plants were fully erect. This data was recorded from the Lenawee, Midland, Saginaw, and Sanilac county sites. Leaf rust and powdery mildew scores are recorded as 0 = no visual symptoms of disease. Leaf rust was recorded from Huron, Lenawee, and Midland counties. Powdery mildew was reported from Ingham and Midland Counties. Black Point data was observed from grain harvested in 2005 at four locations, Huron, Midland, Saginaw, and Sanilac. 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. Observations consisted of 500 seed lots from one rep at each location observed. The data present is the average percent of the four sites. Wheat Spindle Streak Mosaic Virus symptoms were observed at the Ingham County site. Wheat spindle streak mosaic virus is transmitted into wheat roots via a soil borne fungus called *Polymyxa graminis*. Infections take place during cool, wet periods. The optimal temperature for symptoms to appear is between 48°F and 55°F.

Data on Fusarium Head Blight (scab) were obtained from the Ingham misted/inoculated scab screening nursery. The Ingham scab nursery was inoculated (from lab-produced infected grain spread onto the field), and artificial misting was employed throughout the entire flowering period. Each wheat head (i.e., 'spike') is comprised of roughly 14-22 "spikelets", which bear the developing seed. Spikelets that prematurely die because of scab infection are called "scabby" spikelets. Field symptom data reported here are based on: 1) the percent of spikes showing any scabby spikelets; 2) the percentage of scabby spikelets within infected spikes; and 3) the percent of scabby spikelets considering all spikes (scab index). The scab index is a measure of the extent of damage to entire plots due to scab infection, and generally relates to the effect of scab on yield. The milling and baking quality data were generated by the USDA Eastern Soft Wheat Quality Laboratory in Wooster, Ohio, and are based on grain from the 2005 State Variety trial. Flour yield is the ratio of the weight of extractable flour to the weight of milled grain, expressed as a percentage. Lactic Acid Retention is used by some soft wheat processors as a measure of protein strength.

Six 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. We would also like to acknowledge and thank, Keith Dysinger for his help with harvesting this year, and Tim Dietz for his assistance with the multi-year stastical analysis. Questions and comments regarding the research reported here should be directed to Lee Siler (517-290-0935). This information, along with results from previous years, may also be accessed through the Web at http://www.css.msu.edu/varietytrials/wheat/Variety_Results.html.

2006 Michigan State University Wheat Performance Trials

Multi-year data are the most informative.

Table 1 : Multi-Year Performance Summary (Note: Tables sorted by 2006 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% Moisture)				Test Weight: lbs/Bushel				Percent Grain Moisture at Harvest				Lodging Score (0-9); (0=none)			
				Multi-Year Averages				Multi-Year Averages				Multi-Year Averages				Multi-Year Averages			
				2006	2 YR 05-06	3 YR 04-06	4 YR 03-06	2006	2 YR 05-06	3 YR 04-06	4 YR 03-06	2006	2 YR 05-06	3 YR 04-06	4 YR 03-06	2006	2 YR 05-06	3 YR 04-06	4 YR 03-06
Pioneer Brand 25R47	RED	WHITE	YES	100.3	94.8	88.8	92.3	56.8	57.7	56.5	57.0	15.6	14.8	14.8	15.1	4.0	3.3	3.5	3.9
RO55	RED	WHITE	NO	98.6	91.7	-----	-----	58.0	58.7	-----	-----	15.3	14.6	-----	-----	2.3	2.3	-----	-----
MSU Line E1007R	RED	WHITE	YES	98.6	91.2	85.4	87.5	58.1	58.9	57.9	58.4	15.6	14.7	14.9	15.1	3.0	2.5	2.7	2.9
Pioneer Brand 25R37	RED	WHITE	NO	97.4	88.7	86.3	87.4	58.3	58.7	58.8	59.2	16.0	15.1	15.8	15.8	2.9	2.5	3.0	2.8
MCIA Oasis	RED	WHITE	NO	97.1	89.5	84.9	-----	57.2	57.9	57.4	-----	15.6	14.8	15.2	-----	3.4	3.1	4.1	-----
AgriPro Branson	RED	WHITE	NO	96.6	-----	-----	-----	57.4	-----	-----	-----	15.2	-----	-----	-----	4.5	-----	-----	-----
Emmit	RED	WHITE	NO	95.9	90.0	85.5	-----	57.3	58.2	58.1	-----	16.1	15.2	15.6	-----	3.5	2.9	3.9	-----
MSU Line D8006R	RED	WHITE	YES	95.3	87.8	85.5	-----	57.2	58.1	57.6	-----	15.5	14.7	15.0	-----	5.1	3.6	3.7	-----
Alma	RED	WHITE	NO	95.3	-----	-----	-----	57.8	-----	-----	-----	15.4	-----	-----	-----	3.8	-----	-----	-----
Rupp RS 953	RED	WHITE	NO	95.2	-----	-----	-----	59.3	-----	-----	-----	15.4	-----	-----	-----	3.1	-----	-----	-----
DF 101 R	RED	WHITE	NO	94.7	89.3	-----	-----	59.2	59.5	-----	-----	15.2	14.4	-----	-----	2.9	3.2	-----	-----
Hopewell	RED	BRONZE	NO	94.1	89.5	85.1	87.5	57.4	58.1	57.9	58.3	15.5	14.7	15.1	14.9	2.1	2.0	4.3	3.8
RO45	RED	WHITE	NO	94.0	86.6	83.0	-----	58.3	58.5	58.0	-----	15.6	14.9	15.3	-----	4.8	4.5	5.3	-----
Vigoro Tribute	RED	WHITE	NO	94.0	87.8	84.2	86.2	60.1	60.6	60.3	60.8	16.7	15.8	16.3	16.5	4.6	4.2	4.1	4.1
AgriPro Cooper	RED	WHITE	NO	93.7	87.3	-----	-----	58.2	58.3	-----	-----	15.3	14.5	-----	-----	4.1	3.5	-----	-----
Vigoro V9412	RED	WHITE	NO	93.5	87.4	-----	-----	59.4	59.3	-----	-----	15.3	14.5	-----	-----	3.6	3.7	-----	-----
Morrall	RED	WHITE	NO	92.0	-----	-----	-----	58.1	-----	-----	-----	15.0	-----	-----	-----	5.0	-----	-----	-----
RO36	RED	WHITE	NO	91.7	88.0	82.8	83.6	56.6	57.4	56.3	56.6	14.3	13.7	14.1	14.0	4.3	3.7	4.5	4.3
HS257R	RED	WHITE	NO	91.2	85.6	-----	-----	59.4	59.4	-----	-----	15.4	14.5	-----	-----	3.0	3.1	-----	-----
Pioneer Brand 25R51	RED	WHITE	YES	90.4	-----	-----	-----	56.7	-----	-----	-----	15.2	-----	-----	-----	4.0	-----	-----	-----
DF 103 RX	RED	WHITE	NO	90.3	-----	-----	-----	58.1	-----	-----	-----	15.7	-----	-----	-----	6.4	-----	-----	-----
Pioneer Brand 25R63	RED	WHITE	YES	89.9	-----	-----	-----	56.9	-----	-----	-----	14.7	-----	-----	-----	5.4	-----	-----	-----
Rupp RS 942	RED	WHITE	NO	89.7	-----	-----	-----	57.7	-----	-----	-----	14.9	-----	-----	-----	5.8	-----	-----	-----
Bravo	RED	WHITE	NO	88.1	85.5	81.8	84.7	58.6	59.1	58.3	58.8	15.5	14.5	14.9	14.8	2.7	3.0	3.6	3.6
Wiser	RED	WHITE	NO	88.0	-----	-----	-----	57.8	-----	-----	-----	15.1	-----	-----	-----	5.6	-----	-----	-----
MSU Line E2021	RED	WHITE	NO	87.7	83.6	-----	-----	57.9	58.5	-----	-----	15.3	14.4	-----	-----	3.6	3.3	-----	-----
Vigoro V9512	RED	WHITE	NO	87.1	85.9	-----	-----	57.6	58.2	-----	-----	14.9	14.1	-----	-----	5.3	5.2	-----	-----
Truman	RED	WHITE	NO	85.9	80.1	79.1	-----	58.6	59.1	59.4	-----	15.6	14.9	15.7	-----	5.8	4.5	6.0	-----
HS260R	RED	WHITE	NO	85.2	-----	-----	-----	57.1	-----	-----	-----	15.4	-----	-----	-----	6.0	-----	-----	-----
Roane	RED	WHITE	NO	84.4	80.7	76.6	79.4	60.0	60.2	59.8	60.2	16.5	15.4	15.9	15.8	3.4	3.9	3.9	4.8
Bess	RED	WHITE	NO	84.3	-----	-----	-----	58.9	-----	-----	-----	15.1	-----	-----	-----	4.9	-----	-----	-----
FT Wonder	RED	WHITE	YES	83.8	79.8	77.3	-----	58.2	58.7	58.3	-----	14.8	14.2	14.8	-----	5.6	5.0	5.0	-----
RO47	RED	WHITE	NO	83.4	83.6	79.9	-----	58.2	58.5	57.5	-----	15.5	14.4	14.6	-----	5.0	3.7	4.1	-----
McCormick	RED	WHITE	NO	82.3	79.9	77.2	79.9	59.6	60.0	59.6	60.2	16.0	15.2	15.7	15.8	6.5	5.1	5.0	4.4
Rupp RS 947	RED	WHITE	NO	72.2	79.7	80.6	-----	54.7	56.6	57.1	-----	14.5	14.5	15.3	-----	7.8	5.9	6.2	-----
Cedar	RED	WHITE	NO	71.2	78.1	79.8	83.1	54.1	56.5	56.8	57.3	14.7	14.6	15.3	15.4	8.2	5.8	6.2	6.1

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Name	Grain Color	Chaff Color	Awns	Yield: Bushels/Acre (Adjusted to 13% Moisture)				Test Weight: lbs/Bushel				Percent Grain Moisture at Harvest				Lodging Score (0-9); (0=none)			
				Multi-Year Averages				Multi-Year Averages				Multi-Year Averages				Multi-Year Averages			
				2006	2 YR 05-06	3 YR 04-06	4 YR 03-06	2006	2 YR 05-06	3 YR 04-06	4 YR 03-06	2006	2 YR 05-06	3 YR 04-06	4 YR 03-06	2006	2 YR 05-06	3 YR 04-06	4 YR 03-06
MSU Line E0028	WHITE	WHITE	NO	99.5	90.9	84.6	-----	56.4	56.9	55.8	-----	14.3	13.6	13.8	-----	3.1	2.8	3.5	-----
MSU D8006W	WHITE	WHITE	YES	97.9	89.4	84.4	86.9	56.0	56.9	55.8	56.6	14.4	13.8	14.0	14.0	4.6	4.0	4.0	4.1
MSU Line E0027	WHITE	WHITE	YES	97.1	89.7	82.9	-----	56.1	56.8	56.2	-----	13.6	12.9	13.5	-----	3.5	2.7	2.5	-----
MSU Line E2041	WHITE	WHITE	YES	96.3	-----	-----	-----	58.4	-----	-----	-----	14.8	-----	-----	-----	2.8	-----	-----	-----
MSU Line E2017	WHITE	WHITE	NO	95.5	88.8	-----	-----	57.1	58.1	-----	-----	15.5	14.8	-----	-----	4.8	3.8	-----	-----
Caledonia	WHITE	WHITE	NO	94.8	87.2	81.5	83.0	56.3	57.5	56.6	57.0	14.8	14.1	14.4	14.4	2.8	2.4	3.6	3.5
MSU Line E1007W	WHITE	WHITE	YES	94.6	87.6	83.6	-----	57.3	58.3	57.6	-----	14.8	14.2	14.6	-----	2.8	2.5	3.0	-----
MSU Line E2043	WHITE	WHITE	YES	94.6	89.1	-----	-----	57.8	58.7	-----	-----	15.8	14.7	-----	-----	2.2	2.1	-----	-----
AC Mountain	WHITE	WHITE	NO	93.9	86.9	82.0	84.4	56.7	57.2	57.0	57.4	14.5	13.8	14.4	14.3	5.1	3.9	3.9	4.1
Alpine	WHITE	WHITE	NO	93.9	87.4	-----	-----	56.2	56.4	-----	-----	14.8	14.1	-----	-----	3.4	2.7	-----	-----
Pioneer Brand 25W41	WHITE	WHITE	YES	93.4	86.3	80.8	-----	57.4	58.7	58.0	-----	14.6	14.1	14.6	-----	4.3	3.9	3.6	-----
MSU Line E1008	WHITE	WHITE	YES	92.6	-----	-----	-----	57.6	-----	-----	-----	15.6	-----	-----	-----	3.1	-----	-----	-----
Abacus	WHITE	WHITE	NO	91.9	86.1	-----	-----	55.6	56.6	-----	-----	14.9	14.2	-----	-----	4.2	3.0	-----	-----
MSU Line E0009	WHITE	BRONZE	NO	91.7	85.0	80.3	-----	55.9	57.5	57.5	-----	16.2	15.4	16.3	-----	2.0	2.1	2.4	-----
EXP 95412	WHITE	WHITE	NO	91.6	-----	-----	-----	57.1	-----	-----	-----	15.3	-----	-----	-----	5.6	-----	-----	-----
Arrow	WHITE	WHITE	YES	91.0	85.1	-----	-----	57.6	58.2	-----	-----	15.2	14.6	-----	-----	3.4	3.0	-----	-----
MSU Line E1009	WHITE	WHITE	YES	90.8	-----	-----	-----	58.2	-----	-----	-----	15.2	-----	-----	-----	3.1	-----	-----	-----
MSU D6234	WHITE	WHITE	NO	90.7	85.5	82.2	84.6	58.1	58.7	58.7	59.0	15.4	14.6	15.4	15.3	4.5	3.6	4.4	4.9
Whitby	WHITE	WHITE	NO	90.3	85.8	82.8	-----	55.6	57.0	56.9	-----	14.5	13.9	14.7	-----	6.4	4.5	5.3	-----
Pearl	WHITE	WHITE	NO	89.9	85.5	82.2	84.2	57.6	58.3	57.8	58.3	15.0	14.6	15.1	15.1	5.4	4.7	5.5	5.8
Aubrey	WHITE	WHITE	NO	87.8	85.5	82.0	83.6	58.9	59.4	59.0	59.4	15.7	14.9	15.5	15.4	2.1	2.1	2.7	2.8
MSU Line E0001	WHITE	WHITE	NO	84.8	81.2	77.5	-----	56.0	57.6	57.3	-----	15.3	14.9	15.6	-----	5.6	4.1	4.0	-----
TWF020-038	WHITE	WHITE	YES	83.4	-----	-----	-----	55.8	-----	-----	-----	14.3	-----	-----	-----	6.2	-----	-----	-----
Trial Mean (90 Entries)				90.9	86.0	81.7	84.5	57.4	58.1	57.6	58.3	15.1	14.4	14.9	15.0	4.3	3.5	4.1	4.1
LSD (0.05)				7.0	9.3	7.8	6.0	1.0	1.4	1.4	1.1	0.8	0.6	0.7	0.6	1.6	1.8	1.9	1.7
CV (%)				6.2	5.4	5.9	5.0	1.3	1.2	1.5	1.4	4.0	2.1	2.7	2.6	26.6	25.5	28.6	29.6

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Multi-year data are the most informative.

Table 2 : Multi-Year Performance Summary (Note: Tables sorted by 2006 Yield, red wheats grouped before white)

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Name	Grain Color	Flowering Date (Days Past Jan. 1)		Leaf Rust Score (0-9)		Plant Height (Inches from the ground to the top of head)		Powdery Mildew Score (0-9)			Leaf Blotch Lower Leaves : Score (0-9)			In Head Sprouting Score (0-9)			Wheat Spindle Streak
		2006	2 YR 05-06	2006	2 YR 05-06	2006	2 YR 05-06	Multi-Year Averages			Multi-Year Averages			Multi-Year Averages			Mosaic Virus Score (0-9) 2006
								2006	2 YR 05-06	3 YR 04-06	2006	2 YR 05-06	3 YR 04-06	2006	2 YR 05-06	3 YR 04-06	
		2006	2 YR 05-06	2006	2 YR 05-06	2006	2 YR 05-06	3 YR 04-06	2006	2 YR 05-06	3 YR 04-06	2006	2 YR 05-06	3 YR 04-06	2006	2 YR 05-06	3 YR 04-06
Pioneer Brand 25R47	RED	149.5	152.2	3.1	2.1	37.9	34.5	2.2	2.9	3.4	1.9	2.8	3.3	4.4	5.5	6.0	3.0
RO55	RED	149.0	152.2	5.4	3.5	37.9	35.1	3.9	3.7	-----	2.4	3.1	-----	3.1	3.4	-----	4.0
MSU Line E1007R	RED	150.8	153.2	3.3	3.4	41.4	37.1	2.9	2.7	2.2	1.3	3.0	3.8	3.4	3.8	3.7	1.0
Pioneer Brand 25R37	RED	149.8	152.7	4.6	3.3	38.5	35.1	1.7	2.7	2.2	1.7	2.5	2.8	3.7	4.8	4.6	2.0
MCIA Oasis	RED	149.8	152.6	0.4	0.5	43.8	39.6	1.2	1.1	1.1	1.6	2.1	2.8	2.0	1.7	2.0	1.0
AgriPro Branson	RED	149.3	-----	1.7	-----	37.9	-----	0.9	-----	-----	1.6	-----	-----	2.5	-----	-----	7.0
Emmit	RED	150.2	152.6	5.8	4.7	40.8	37.3	3.2	4.1	3.5	2.7	3.5	3.8	6.3	5.7	5.2	6.0
MSU Line D8006R	RED	150.0	152.8	2.8	2.2	41.4	37.8	0.8	0.7	1.0	2.2	3.8	4.7	4.3	4.3	4.8	2.0
Alma	RED	149.0	-----	2.8	-----	37.1	-----	3.3	-----	-----	1.9	-----	-----	3.3	-----	-----	7.0
Rupp RS 953	RED	149.0	-----	2.7	-----	38.8	-----	1.2	-----	-----	1.6	-----	-----	2.0	-----	-----	6.0
DF 101 R	RED	149.0	151.2	2.4	2.2	39.3	36.3	0.8	1.1	-----	1.8	2.9	-----	3.3	2.6	-----	7.0
Hopewell	RED	150.0	152.8	5.7	3.9	41.1	37.6	2.9	2.3	2.1	1.6	2.7	3.5	2.8	2.3	2.0	1.0
RO45	RED	149.3	152.1	2.1	1.6	39.5	35.7	1.8	2.0	1.7	2.6	4.0	4.3	7.2	7.9	7.1	3.0
Vigoro Tribute	RED	149.0	151.5	0.5	1.0	38.7	34.7	0.0	0.2	0.4	1.3	2.1	2.5	2.8	3.4	2.9	4.0
AgriPro Cooper	RED	149.0	151.9	3.1	2.8	36.8	34.3	3.3	4.0	-----	1.8	3.5	-----	2.5	4.9	-----	6.0
Vigoro V9412	RED	149.3	151.3	2.6	2.6	38.8	35.8	1.0	0.9	-----	1.8	3.3	-----	3.8	3.8	-----	7.0
Morrall	RED	149.0	-----	4.0	-----	38.0	-----	2.7	-----	-----	2.0	-----	-----	3.3	-----	-----	1.0
RO36	RED	149.8	152.3	5.0	4.0	41.4	38.1	4.7	5.0	4.1	2.8	3.5	4.2	7.1	7.8	7.4	2.0
HS257R	RED	149.0	151.2	4.2	3.9	38.3	35.5	0.8	0.9	-----	1.4	2.6	-----	2.8	2.2	-----	9.0
Pioneer Brand 25R51	RED	149.0	-----	4.0	-----	39.0	-----	4.7	-----	-----	2.6	-----	-----	3.5	-----	-----	5.0
DF 103 RX	RED	150.3	-----	3.6	-----	41.5	-----	3.4	-----	-----	2.2	-----	-----	4.7	-----	-----	3.0
Pioneer Brand 25R63	RED	149.2	-----	4.2	-----	38.6	-----	3.7	-----	-----	2.0	-----	-----	2.7	-----	-----	6.0
Rupp RS 942	RED	149.2	-----	2.7	-----	41.3	-----	1.6	-----	-----	4.8	-----	-----	8.7	-----	-----	9.0
Bravo	RED	149.5	151.6	6.3	4.9	41.9	38.9	5.0	5.9	4.6	2.2	2.9	3.6	2.6	3.6	2.9	2.0
Wiser	RED	149.2	-----	2.6	-----	42.4	-----	3.2	-----	-----	3.3	-----	-----	8.8	-----	-----	6.0
MSU Line E2021	RED	150.3	152.7	4.4	3.2	41.7	37.6	1.9	1.7	-----	3.0	4.8	-----	6.9	7.4	-----	1.0
Vigoro V9512	RED	149.2	151.6	2.4	2.2	41.4	38.8	2.3	2.9	-----	3.8	4.4	-----	7.9	8.1	-----	9.0
Truman	RED	149.3	152.9	2.6	2.6	40.7	37.0	3.4	4.1	3.9	2.4	3.0	3.4	2.3	1.6	1.6	8.0
HS260R	RED	149.5	-----	2.3	-----	45.0	-----	1.8	-----	-----	2.6	-----	-----	9.0	-----	-----	5.0
Roane	RED	149.2	152.1	2.7	2.1	36.8	33.5	3.3	3.9	3.5	3.0	3.5	3.6	3.4	4.2	3.6	9.0
Bess	RED	149.0	-----	3.3	-----	40.4	-----	4.1	-----	-----	3.3	-----	-----	2.8	-----	-----	8.0
FT Wonder	RED	149.0	151.5	6.5	5.0	43.2	38.5	1.6	1.7	1.5	1.9	3.2	4.0	7.9	8.8	8.9	3.0
RO47	RED	149.4	152.2	2.8	2.2	39.8	36.3	0.6	0.9	0.9	1.7	2.8	3.3	2.1	3.1	3.1	2.0
McCormick	RED	149.0	151.8	5.5	4.5	37.2	33.2	0.5	0.4	0.4	1.9	2.9	3.5	1.7	3.2	2.4	2.0
Rupp RS 947	RED	149.9	152.2	8.5	6.8	42.2	38.8	0.1	0.1	0.0	1.2	2.1	2.6	2.8	3.1	3.0	1.0
Cedar	RED	149.5	152.5	8.1	7.6	42.6	38.9	0.7	0.7	0.6	1.5	2.2	3.1	1.9	2.5	2.6	2.0

2006 Michigan State University Wheat Performance Trials

Multi-year data are the most informative.

Table 2 : Multi-Year Performance Summary (Note: Tables sorted by 2006 Yield, red wheats grouped before white)

MSU makes no endorsement of any variety or brand.

Name	Grain Color	Flowering Date (Days Past Jan. 1)		Leaf Rust Score (0-9)		Plant Height (Inches from the ground to the top of head)		Powdery Mildew Score (0-9)			Leaf Blotch Lower Leaves : Score (0-9)			In Head Sprouting Score (0-9)			Wheat Spindle Streak
		2006	2 YR 05-06	2006	2 YR 05-06	2006	2 YR 05-06	Multi-Year Averages		Multi-Year Averages			Multi-Year Averages			Mosaic Virus Score (0-9) 2006	
								2 YR 05-06	3 YR 04-06	2 YR 05-06	3 YR 04-06	2 YR 05-06	3 YR 04-06				
MSU Line E0028	WHITE	149.4	152.1	6.0	4.3	42.4	37.6	2.9	2.9	2.8	1.9	3.1	4.1	8.5	8.8	8.9	2.0
MSU D8006W	WHITE	149.5	152.5	5.1	3.6	42.0	37.7	1.5	1.5	1.6	1.5	3.0	3.9	7.0	7.4	7.8	1.0
MSU Line E0027	WHITE	150.9	153.2	3.3	2.7	40.0	36.2	0.9	1.4	1.5	1.9	3.3	4.2	8.0	8.5	8.6	2.0
MSU Line E2041	WHITE	150.2	-----	3.5	-----	40.7	-----	3.6	-----	-----	2.2	-----	-----	7.9	-----	-----	3.0
MSU Line E2017	WHITE	150.5	153.1	4.1	3.1	44.3	39.0	4.3	4.5	-----	2.3	3.0	-----	8.8	9.0	-----	1.0
Caledonia	WHITE	149.5	153.0	5.2	4.4	39.4	35.5	3.5	3.2	2.9	2.4	3.6	3.9	8.5	8.8	8.8	2.0
MSU Line E1007W	WHITE	149.7	152.5	4.6	3.3	40.9	37.5	3.0	3.1	3.4	1.5	2.6	3.4	7.9	8.3	8.3	1.0
MSU Line E2043	WHITE	152.0	154.6	4.2	3.1	42.8	38.9	1.4	1.7	-----	2.8	3.4	-----	7.1	7.6	-----	2.0
AC Mountain	WHITE	149.9	152.7	5.3	4.2	44.7	40.4	3.2	4.8	3.9	1.9	2.8	3.4	8.2	8.6	8.6	2.0
Alpine	WHITE	150.0	152.8	6.4	5.2	40.8	37.1	3.3	3.0	-----	2.5	3.1	-----	6.8	6.8	-----	2.0
Pioneer Brand 25W41	WHITE	150.0	152.6	3.0	2.5	38.8	35.3	4.2	5.3	4.7	2.8	3.0	3.5	6.0	6.8	7.4	1.0
MSU Line E1008	WHITE	149.5	-----	6.6	-----	41.5	-----	1.2	-----	-----	1.5	-----	-----	5.3	-----	-----	1.0
Abacus	WHITE	150.2	152.9	4.0	3.5	41.1	37.5	1.5	2.3	-----	2.3	3.1	-----	8.5	7.9	-----	2.0
MSU Line E0009	WHITE	151.5	154.5	5.5	4.3	44.7	39.6	4.1	4.7	4.8	2.4	2.8	3.1	7.8	8.3	8.4	2.0
EXP 95412	WHITE	150.3	-----	4.3	-----	46.1	-----	2.9	-----	-----	3.5	-----	-----	9.0	-----	-----	4.0
Arrow	WHITE	149.8	152.4	4.2	2.6	41.5	38.0	2.0	2.6	-----	2.1	3.0	-----	5.3	6.4	-----	7.0
MSU Line E1009	WHITE	150.7	-----	4.5	-----	39.9	-----	1.3	-----	-----	2.2	-----	-----	6.4	-----	-----	2.0
MSU D6234	WHITE	150.0	152.8	3.4	2.2	43.4	39.1	2.5	2.6	2.0	2.0	2.8	3.3	8.8	8.8	8.8	1.0
Whitby	WHITE	151.4	153.5	4.4	3.5	46.6	41.7	2.0	2.7	2.7	3.6	4.1	3.9	8.5	8.2	8.3	1.0
Pearl	WHITE	149.4	152.5	0.8	0.9	41.3	37.4	1.2	1.0	1.0	2.4	3.6	3.8	8.7	8.9	8.8	3.0
Aubrey	WHITE	149.3	151.9	4.1	2.8	41.3	37.6	0.8	0.9	0.9	1.5	2.9	3.5	8.8	8.6	8.6	3.0
MSU Line E0001	WHITE	151.0	153.6	5.2	4.1	42.7	38.7	3.1	3.2	2.4	2.7	3.4	3.9	3.9	3.8	4.4	9.0
TWF020-038	WHITE	150.5	-----	1.2	-----	46.0	-----	0.8	-----	-----	3.5	-----	-----	7.9	-----	-----	7.0
Trial Mean (90 Entries)		149.8	152.5	4.1	3.5	40.8	37.0	2.3	2.6	2.4	2.2	3.2	3.7	5.6	5.9	5.9	3.3
LSD (0.05)		0.9	1.0	1.8	1.7	1.4	1.8	1.3	1.3	1.3	1.1	1.1	1.0	1.6	1.7	1.4	3.1
CV (%)		0.9	0.9	26.8	24.6	2.1	2.4	27.9	24.8	33.8	23.5	17.9	16.1	14.4	14.7	14.1	45.3

2006 Michigan State University Wheat Performance Trials

Multi-year data are the most informative.

Table 3 : Multi-Year Performance Summary (Note: Tables sorted by 2006 Yield, red wheats grouped before white)

MSU makes no endorsement of any variety or brand.

Name	Grain Color	Percent Black Point (Seed) 2005	Fusarium Head Blight (Scab) Data : Field Observation Symptoms									Milling and Baking Properties (2005 Crop and Earlier)							
			Incidence (% of spikes)			Severity (% within spikes)			Index (% overall infection)			Percent Flour Yield			Percent Protein In Flour			Lactic Acid Retention	
			Multi-Year Averages			Multi-Year Averages			Multi-Year Averages			Multi-Year Averages			Multi-Year Averages				
			2006	2 YR 05-06	3 YR 04-06	2006	2 YR 05-06	3 YR 04-06	2006	2 YR 05-06	3 YR 04-06	2005	2 YR 04-05	3 YR 03-05	2005	2 YR 04-05	3 YR 03-05	2005	2 YR 04-05
Pioneer Brand 25R47	RED	12.8	65.0	68.8	78.0	40.0	40.8	43.0	26.0	26.8	33.2	73.5	72.8	72.7	8.0	7.1	7.5	101.4	106.0
RO55	RED	39.2	35.0	52.7	-----	40.0	39.3	-----	15.5	21.9	-----	73.6	-----	-----	8.5	-----	-----	82.6	-----
MSU Line E1007R	RED	-----	30.0	45.4	63.6	25.0	32.7	41.6	7.5	16.0	30.4	71.8	71.2	71.4	8.5	7.7	8.1	104.6	111.2
Pioneer Brand 25R37	RED	8.0	55.0	62.0	74.4	30.0	28.1	34.7	17.0	16.0	26.5	69.8	69.4	69.3	9.3	8.2	8.3	107.0	107.9
MCIA Oasis	RED	-----	30.0	51.5	67.5	40.0	40.6	42.7	12.0	21.4	29.8	72.9	72.1	-----	8.3	7.3	-----	98.2	104.3
AgriPro Branson	RED	-----	20.0	-----	-----	30.0	-----	-----	6.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Emmit	RED	34.0	35.0	55.9	69.0	45.0	41.0	40.6	16.0	22.0	27.3	73.6	73.0	-----	8.9	7.8	-----	78.1	82.9
MSU Line D8006R	RED	15.6	30.0	47.0	62.8	50.0	40.8	42.6	14.0	17.4	26.3	72.9	72.2	-----	9.9	8.5	-----	101.9	103.6
Alma	RED	-----	50.0	-----	-----	55.0	-----	-----	28.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Rupp RS 953	RED	-----	50.0	-----	-----	35.0	-----	-----	18.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
DF 101 R	RED	12.7	50.0	65.4	-----	35.0	36.6	-----	17.5	24.4	-----	70.6	-----	-----	8.9	-----	-----	113.2	-----
Hopewell	RED	2.8	60.0	53.4	67.7	40.0	36.6	40.1	24.0	21.5	29.4	69.8	69.3	69.7	8.9	8.0	8.3	106.9	110.0
RO45	RED	18.5	45.0	62.1	71.5	40.0	42.7	41.0	18.5	27.6	29.8	73.1	73.4	-----	8.8	7.9	-----	99.9	102.8
Vigoro Tribute	RED	20.9	40.0	56.6	71.1	40.0	37.7	47.8	16.0	21.2	36.8	71.4	70.3	70.4	8.9	7.8	8.1	113.5	116.7
AgriPro Cooper	RED	12.4	45.0	52.8	-----	40.0	35.0	-----	18.0	17.1	-----	72.6	-----	-----	9.1	-----	-----	91.5	-----
Vigoro V9412	RED	9.6	45.0	64.9	-----	35.0	34.8	-----	16.0	23.1	-----	70.3	-----	-----	8.9	-----	-----	116.9	-----
Morrall	RED	-----	45.0	-----	-----	35.0	-----	-----	15.5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
RO36	RED	19.7	35.0	50.3	66.5	45.0	45.1	51.6	18.0	22.4	36.2	71.9	72.0	71.8	8.5	7.9	7.9	100.8	98.1
HS257R	RED	9.5	60.0	70.9	-----	40.0	36.0	-----	24.0	24.4	-----	70.3	-----	-----	9.0	-----	-----	117.0	-----
Pioneer Brand 25R51	RED	-----	40.0	-----	-----	30.0	-----	-----	13.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
DF 103 RX	RED	-----	25.0	-----	-----	40.0	-----	-----	10.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Pioneer Brand 25R63	RED	-----	30.0	-----	-----	30.0	-----	-----	10.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Rupp RS 942	RED	-----	30.0	-----	-----	35.0	-----	-----	10.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Bravo	RED	9.2	60.0	58.5	71.9	45.0	42.9	49.1	30.0	27.2	38.4	71.2	71.0	71.0	9.0	8.3	8.8	90.2	90.8
Wiser	RED	-----	15.0	-----	-----	40.0	-----	-----	5.5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
MSU Line E2021	RED	7.8	30.0	49.9	-----	45.0	39.4	-----	13.5	16.7	-----	70.9	-----	-----	9.3	-----	-----	83.3	-----
Vigoro V9512	RED	27.1	30.0	52.8	-----	40.0	35.5	-----	12.0	18.1	-----	71.3	-----	-----	8.7	-----	-----	103.2	-----
Truman	RED	6.5	15.0	22.1	45.9	25.0	28.7	29.9	4.0	8.8	16.2	71.0	69.8	-----	8.9	8.0	-----	95.3	100.2
HS260R	RED	-----	40.0	-----	-----	45.0	-----	-----	17.5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Roane	RED	2.3	50.0	55.6	70.4	40.0	35.1	43.4	20.0	20.0	33.3	69.5	68.8	69.0	8.9	7.8	8.2	110.2	113.0
Bess	RED	-----	25.0	-----	-----	25.0	-----	-----	6.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
FT Wonder	RED	9.3	45.0	-----	-----	30.0	-----	-----	13.5	-----	-----	71.9	71.6	-----	8.9	7.5	-----	103.3	105.3
RO47	RED	3.3	75.0	78.8	85.6	60.0	54.6	63.1	46.0	43.3	55.4	70.8	70.6	-----	9.2	7.8	-----	112.6	111.8
McCormick	RED	18.4	40.0	52.1	68.0	40.0	32.5	42.7	16.0	16.1	31.8	71.7	70.6	70.7	9.6	8.5	8.9	105.2	110.6
Rupp RS 947	RED	12.3	20.0	38.9	55.6	20.0	18.2	20.0	4.0	7.4	12.1	71.0	69.6	-----	8.5	7.3	-----	103.2	108.8
Cedar	RED	5.2	30.0	44.3	62.4	25.0	25.9	28.1	8.0	12.0	18.8	70.8	69.6	69.6	8.5	7.4	7.7	103.5	108.6

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Name	Grain Color	Percent Black Point (Seed) 2005	Fusarium Head Blight (Scab) Data : Field Observation Symptoms									Milling and Baking Properties (2005 Crop and Earlier)							
			Incidence (% of spikes)			Severity (% within spikes)			Index (% overall infection)			Percent Flour Yield			Percent Protein In Flour			Lactic Acid Retention	
			Multi-Year Averages			Multi-Year Averages			Multi-Year Averages			Multi-Year Averages			Multi-Year Averages			Retention	
			2006	2 YR 05-06	3 YR 04-06	2006	2 YR 05-06	3 YR 04-06	2006	2 YR 05-06	3 YR 04-06	2005	2 YR 04-05	3 YR 03-05	2005	2 YR 04-05	3 YR 03-05	2005	2 YR 04-05
MSU Line E0028	WHITE	10.6	60.0	58.9	72.4	60.0	48.9	55.6	36.0	29.8	42.8	74.0	73.4	-----	8.8	7.9	-----	91.7	99.2
MSU D8006W	WHITE	-----	60.0	70.0	80.0	50.0	50.2	50.4	30.0	34.8	40.1	73.8	73.4	73.4	9.3	8.0	8.4	112.2	115.2
MSU Line E0027	WHITE	5.6	35.0	59.4	69.8	40.0	49.0	48.5	14.0	30.8	35.3	73.2	72.5	-----	8.7	7.8	-----	98.4	104.9
MSU Line E2041	WHITE	3.3	55.0	-----	-----	35.0	-----	-----	19.5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
MSU Line E2017	WHITE	-----	30.0	39.7	-----	35.0	42.8	-----	10.0	16.9	-----	72.7	-----	-----	8.8	-----	-----	93.5	-----
Caledonia	WHITE	11.6	50.0	55.4	70.2	65.0	62.7	64.5	37.0	36.7	47.2	72.9	72.5	72.4	9.0	7.8	8.0	93.4	96.8
MSU Line E1007W	WHITE	7.9	70.0	66.5	77.6	45.0	44.4	47.0	31.5	28.0	36.0	72.2	71.9	-----	8.9	7.6	-----	104.2	108.6
MSU Line E2043	WHITE	10.2	40.0	52.1	-----	40.0	34.2	-----	16.0	16.6	-----	73.2	-----	-----	9.1	-----	-----	103.2	-----
AC Mountain	WHITE	10.9	35.0	51.1	66.0	45.0	35.9	43.0	16.0	17.9	30.3	73.1	72.7	72.6	8.8	7.9	8.2	92.4	94.8
Alpine	WHITE	4.4	50.0	49.3	-----	45.0	42.1	-----	23.0	21.7	-----	69.3	-----	-----	9.2	-----	-----	105.9	-----
Pioneer Brand 25W41	WHITE	18.0	40.0	58.8	72.5	40.0	48.3	51.9	16.0	29.7	39.5	71.3	71.1	-----	8.5	7.8	-----	89.2	92.6
MSU Line E1008	WHITE	12.3	75.0	-----	-----	45.0	-----	-----	34.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Abacus	WHITE	30.4	30.0	45.5	-----	55.0	57.1	-----	17.0	26.7	-----	71.4	-----	-----	9.5	-----	-----	78.9	-----
MSU Line E0009	WHITE	25.3	10.0	26.6	46.8	10.0	13.1	14.1	1.0	5.7	8.7	74.8	73.7	-----	8.5	7.7	-----	97.3	99.9
EXP 95412	WHITE	-----	30.0	-----	-----	50.0	-----	-----	15.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Arrow	WHITE	33.4	60.0	63.3	-----	50.0	39.1	-----	30.0	24.4	-----	71.3	-----	-----	8.8	-----	-----	91.3	-----
MSU Line E1009	WHITE	-----	50.0	-----	-----	35.0	-----	-----	17.5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
MSU D6234	WHITE	20.0	45.0	53.3	68.2	55.0	46.0	45.6	24.0	23.9	30.6	71.2	70.9	70.7	9.0	8.0	8.3	78.6	81.7
Whitby	WHITE	40.1	20.0	33.8	55.5	35.0	33.0	36.0	7.0	12.0	21.9	69.8	69.8	-----	8.8	7.7	-----	82.8	89.7
Pearl	WHITE	12.8	20.0	40.0	59.4	50.0	39.6	45.2	10.0	13.1	27.2	72.6	71.2	71.2	9.1	7.8	8.3	107.0	110.6
Aubrey	WHITE	10.6	50.0	57.2	67.8	45.0	37.1	31.9	23.0	20.2	19.8	72.6	73.0	72.2	9.0	8.2	8.5	103.5	105.2
MSU Line E0001	WHITE	19.5	20.0	34.8	53.0	35.0	29.4	27.9	7.0	10.5	14.7	74.5	73.9	-----	9.4	8.5	-----	98.2	99.2
TWF020-038	WHITE	-----	30.0	-----	-----	40.0	-----	-----	12.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Trial Mean (90 Entries)		15.2	41.5	53.8	68.0	41.2	39.6	43.5	18.1	21.9	31.5	71.7	71.5	71.1	9.0	7.9	8.2	98.4	102.0
LSD (0.05)		10.0	21.7	21.0	16.0	16.4	15.8	14.9	16.0	14.6	14.8	-----	1.3	1.1	-----	0.6	0.5	-----	6.8
CV (%)		47.1	26.2	19.4	14.5	20.0	19.8	21.0	44.0	33.1	28.9	-----	0.9	0.9	-----	3.8	3.5	-----	3.3

2006 Michigan State University Wheat Performance Trials

Multi-year data are the most informative.

Table 3 : Single Site Yield and Test Weight Performance Summary (Note: Tables sorted by 2006 Yield, red wheat's grouped before white)

MSU makes no endorsement of any variety or brand.

NAME	Grain Color	2006 COUNTY LOCATIONS										COMPANY
		HURON		LENAWEE		MIDLAND		SAGINAW		SANILAC		
		Yield bu/acre	Test Weight	Yield bu/acre	Test Weight	Yield bu/acre	Test Weight	Yield bu/acre	Test Weight	Yield bu/acre	Test Weight	
Pioneer Brand 25R47	RED	78.6	56.9	91.3	57.7	114.8	57.2	103.1	56.0	113.5	56.2	Pioneer Hi-Bred International
RO55	RED	82.5	56.6	90.3	59.9	111.7	58.6	97.4	57.3	110.9	57.4	Platinum Genetics, LLC
MSU Line E1007R	RED	84.1	57.3	91.5	59.4	109.6	58.6	98.9	57.2	108.8	58.0	Michigan State University
Pioneer Brand 25R37	RED	84.7	57.1	82.7	58.9	111.4	59.5	95.0	57.3	113.1	58.7	Pioneer Hi-Bred International
MCIA Oasis	RED	83.5	56.6	87.1	56.6	105.9	58.4	94.3	57.2	114.6	57.1	Michigan Crop Improvement Association
AgriPro Branson	RED	76.7	57.3	90.0	58.5	109.3	58.2	93.3	56.8	113.7	56.2	AgriPro COKER
Emmit	RED	79.7	57.8	85.4	55.8	111.2	58.9	93.5	57.2	109.9	56.9	Hyland Seeds
MSU Line D8006R	RED	83.1	56.9	74.2	57.8	107.7	57.9	98.9	56.3	112.6	57.2	Michigan State University
Alma	RED	78.0	56.4	81.0	60.0	112.7	57.6	93.1	57.8	111.9	57.0	Steyer Seeds
Rupp RS 953	RED	78.4	59.7	90.2	60.1	105.4	60.0	91.7	58.0	110.5	58.7	Rupp Seeds, Inc.
DF 101 R	RED	77.5	57.9	85.8	60.9	107.5	60.3	90.1	58.0	112.8	58.7	D.F. Seeds, Inc.
Hopewell	RED	79.7	55.7	91.9	61.3	100.6	57.3	89.4	56.3	108.7	56.6	Michigan Crop Improvement Association
RO45	RED	77.2	58.9	86.4	58.6	107.8	58.6	89.9	57.5	108.6	57.9	Platinum Genetics, LLC
Vigoro Tribute	RED	78.0	59.2	91.5	62.0	101.7	60.8	88.3	59.1	110.5	59.3	Royster-Clark, Inc.
AgriPro Cooper	RED	78.7	57.1	75.2	60.6	110.2	58.1	93.2	57.8	111.2	57.3	AgriPro COKER
Vigoro V9412	RED	75.3	58.6	88.0	61.0	105.7	60.4	89.6	58.3	108.8	58.9	Royster-Clark, Inc.
Morral	RED	75.1	57.9	74.0	59.2	110.8	58.5	94.1	57.8	106.1	57.2	Steyer Seeds
RO36	RED	78.7	56.2	69.4	57.3	106.6	57.0	93.3	56.5	110.7	56.2	Platinum Genetics, LLC
HS257R	RED	76.0	58.8	82.6	61.4	103.7	59.9	86.2	58.0	107.6	58.9	Harrington Seeds, Inc.
Pioneer Brand 25R51	RED	76.6	57.0	66.8	57.4	109.3	57.6	89.2	55.5	110.0	56.0	Pioneer Hi-Bred International
DF 103 RX	RED	77.6	58.2	77.6	59.4	101.2	58.3	92.0	57.1	103.3	57.5	D.F. Seeds, Inc.
Pioneer Brand 25R63	RED	76.9	57.9	65.5	56.8	108.6	57.5	92.6	56.3	105.8	56.2	Pioneer Hi-Bred International
Rupp RS 942	RED	74.7	58.0	85.3	58.0	96.1	57.6	86.0	56.9	106.4	57.8	Rupp Seeds, Inc.
Bravo	RED	72.1	59.1	80.8	59.8	99.0	58.7	89.1	57.7	99.7	57.9	Michigan Crop Improvement Association
Wiser	RED	70.9	57.9	80.9	58.7	95.3	57.6	86.3	57.0	106.7	57.9	Steyer Seeds
MSU Line E2021	RED	70.0	57.5	88.2	60.0	91.3	58.0	84.1	56.9	104.8	57.0	Michigan State University
Vigoro V9512	RED	71.9	58.0	76.7	57.7	96.4	57.5	84.1	56.9	106.5	57.8	Royster-Clark, Inc.
Truman	RED	73.2	58.9	59.6	58.7	101.7	59.4	84.5	58.0	110.3	57.8	Michigan Crop Improvement Association
HS260R	RED	73.7	57.6	64.7	57.6	97.1	57.6	93.6	56.6	97.1	56.1	Harrington Seeds, Inc.
Roane	RED	68.9	59.9	75.7	61.0	93.0	60.4	85.6	59.2	98.7	59.3	Michigan Crop Improvement Association
Bess	RED	70.2	59.1	67.0	59.5	99.1	59.1	80.3	58.4	104.9	58.3	Missouri Seed Improvement Association
FT Wonder	RED	76.2	58.2	64.8	59.8	94.3	58.2	82.6	57.5	100.9	57.1	Hyland Seeds
RO47	RED	65.4	58.7	69.5	58.8	94.0	58.2	85.8	57.6	102.4	57.7	Platinum Genetics, LLC
McCormick	RED	75.2	59.0	62.3	61.8	93.5	59.7	88.9	59.2	91.6	58.4	Michigan Crop Improvement Association
Rupp RS 947	RED	79.1	55.5	46.7	55.6	72.7	52.6	84.4	55.6	77.9	54.0	Rupp Seeds, Inc.
Cedar	RED	75.4	56.4	48.4	52.8	72.9	52.0	90.6	55.6	68.5	53.6	Michigan Crop Improvement Association

2006 Michigan State University Wheat Performance Trials

Multi-year data are the most informative.

Table 3 : Single Site Yield and Test Weight Performance Summary (Note: Tables sorted by 2006 Yield, red wheat's grouped before white)

MSU makes no endorsement of any variety or brand.

NAME	Grain Color	2006 COUNTY LOCATIONS										COMPANY
		HURON		LENAWEE		MIDLAND		SAGINAW		SANILAC		
		Yield bu/acre	Test Weight	Yield bu/acre	Test Weight	Yield bu/acre	Test Weight	Yield bu/acre	Test Weight	Yield bu/acre	Test Weight	
MSU Line E0028	WHITE	84.1	56.0	99.4	58.4	107.5	56.8	95.4	55.4	111.0	55.5	Michigan State University
MSU D8006W	WHITE	80.9	55.6	96.0	56.3	108.5	56.9	93.9	55.5	110.4	55.6	Michigan Crop Improvement Association
MSU Line E0027	WHITE	83.3	54.8	95.8	58.2	102.6	56.1	94.6	55.5	109.2	55.8	Michigan State University
MSU Line E2041	WHITE	78.0	57.7	92.4	60.5	105.8	58.6	95.1	57.7	110.0	57.4	Michigan State University
MSU Line E2017	WHITE	80.5	56.2	91.2	57.3	103.5	58.1	93.2	56.6	109.3	57.1	Michigan State University
Caledonia	WHITE	79.4	54.5	94.7	58.5	103.0	56.9	93.8	55.6	103.0	56.1	Harrington Seeds, Inc.
MSU Line E1007W	WHITE	77.4	57.8	87.6	58.4	105.2	57.4	92.5	56.2	110.5	56.9	Michigan State University
MSU Line E2043	WHITE	77.2	57.6	92.3	58.6	101.8	58.1	96.5	57.1	105.0	57.6	Michigan State University
AC Mountain	WHITE	79.2	55.5	85.1	58.6	102.2	57.7	94.5	55.6	108.3	56.0	Michigan Crop Improvement Association
Alpine	WHITE	80.7	54.7	83.9	58.5	104.6	57.0	93.8	55.2	106.4	55.6	Michigan Crop Improvement Association
Pioneer Brand 25W41	WHITE	80.1	57.8	75.6	58.0	109.3	57.7	96.6	56.5	105.3	57.1	Pioneer Hi-Bred International
MSU Line E1008	WHITE	81.7	56.6	81.0	60.7	103.4	58.1	91.3	56.1	105.8	56.7	Michigan State University
Abacus	WHITE	80.0	54.8	72.7	55.4	102.8	56.0	92.8	55.6	111.3	56.4	Michigan Crop Improvement Association
MSU Line E0009	WHITE	81.5	55.7	88.8	55.4	96.7	56.8	91.5	55.9	100.2	55.6	Michigan State University
EXP 95412	WHITE	78.1	56.7	83.6	58.1	100.0	58.1	89.9	56.1	106.2	56.4	Northern Star Integrated Services LCC
Arrow	WHITE	75.3	56.9	82.4	59.2	100.8	58.3	89.1	56.6	107.2	56.9	Michigan Crop Improvement Association
MSU Line E1009	WHITE	75.2	58.5	77.2	59.5	104.6	58.6	91.1	57.0	105.8	57.3	Michigan State University
MSU D6234	WHITE	78.6	57.1	84.9	59.9	96.7	59.1	88.0	56.9	105.4	57.5	Michigan Crop Improvement Association
Whitby	WHITE	81.1	54.8	75.4	56.5	99.4	56.1	92.0	55.0	103.5	55.6	Hyland Seeds
Pearl	WHITE	77.5	57.5	73.5	58.3	102.6	58.4	92.0	56.9	103.9	56.8	Michigan Crop Improvement Association
Aubrey	WHITE	75.8	58.0	76.4	60.9	94.6	59.5	85.8	58.3	106.5	58.0	Platinum Genetics, LLC
MSU Line E0001	WHITE	80.5	55.4	64.9	56.5	95.3	56.7	89.4	55.6	93.8	56.0	Michigan State University
TWF020-038	WHITE	77.6	55.7	67.5	55.0	99.1	57.4	90.8	55.4	82.1	55.4	Hyland Seeds
Trial Mean (90 Entries)		77.6	57.0	79.6	58.4	101.7	57.8	90.9	56.8	104.7	56.9	
LSD (0.05)		5.0	1.3	10.4	2.1	4.7	0.6	4.0	0.4	7.1	0.5	
CV (%)		4.4	1.6	9.2	2.6	3.2	0.8	3.1	0.5	4.8	0.7	

2006 Michigan State University Wheat Performance Trials

Appendix A. Trial Site Descriptions for 2006 MSU Wheat Performance Trials.

	HURON COUNTY	YIELD TRIAL	INGHAM COUNTY OBSERVATION	SCAB NURSERY	LENAWEE COUNTY	MIDLAND COUNTY	SANILAC COUNTY	SAGINAW COUNTY
COOPERATOR	DARWIN SNELLER	TIM DIETZ	MICHIGAN STATE UNIVERSITY	MICHIGAN STATE UNIVERSITY	WOODS SEED FARM	FRED SILER	STOUGHTENBURG FARMS	STUART BIERLEIN
NEAREST CITY	SEBEWAING	WILLIAMSTON	MASON	EAST LANSING	BRITTON	LAPORTE	SANDUSKY	GERA
PLANTING DATE	OCT. 5, 2005	OCT. 1, 2005	OCT. 10, 2005	OCT. 12, 2005	SEPT. 30, 2005	SEPT. 24, 2005	SEPT. 25, 2005	OCT. 4, 2005
HARVEST DATE	July 17, 2006	N / A	N / A	N / A	July 10, 2006	July 15, 2006	July 16, 2006	July 14, 2006
PRE-PLANT FERTILIZER	NONE	150# 6-24-24	150# 6-24-24	150# 6-24-24	300# 9-23-30	250# 6-15-36	190# 8-15-30 +3.7% S	300# 6-11-35 +1%Mn+0.3Cu +0.3Zn
COMMENTS	Light to Moderate Leaf Rust	Light Powdery Mildew; Moderate Leaf Blotch Pressure, Moderate Wheat Spindle Steak Mosaic Virus Atypical Lodging: Did Not Harvest	Observation Site / Yield Not Taken	Inoculated / Misted Scab Screening Nursery	Moderate to Heavy Leaf Rust Early; Moderate Lodging; No-tilled	Light to Moderate Leaf Rust Pressure Late	Light to Moderate Leaf Rust, Light to Moderate Lodging	Light to Moderate Leaf Rust
AVERAGE YIELD (BUSHEL / ACRE)	77.6	N / A	N / A	N / A	79.6	101.7	104.7	90.9
AVERAGE TEST WEIGHT (LBS. / BUSHEL)	57.0	N / A	N / A	N / A	58.4	57.8	56.9	56.8
AVERAGE PERCENT GRAIN MOISTURE	14.0	N / A	N / A	N / A	14.0	13.6	17.5	16.4
DATA RECORDED (NUMBER OF REPS)	LRUST (2)	PL_HT (3); WSSV (2); PM (2); STRI (2)	FD (2)	FHBI% (2); FHBS% (2); FHBX (2)	LODGE (4); LRUST (2); PL_HT (2)	LODGE (4); LRUST (2); PL_HT (4); FD (4); PM (2); STRI (2); SPROUT (4);	LODGE (3)	LODGE (4); SPROUT (4)

*OTHER DATA: **FD** – Flowering Date (Days Past Jan. 01), **PL_HT** - Plant Height in Inches, **SPROUT** - In-Head Pre-Harvest Sprouting Score (0-9), **LODGE** - Lodging Score (0-9), **LRUST** - Leaf Rust Score (0-9), **STRI** – Stagonospora tritici (Leaf Blotch) Score (0-9), **PM** - Powdery Mildew Score (0-9), **WSSV** - Wheat Spindle Streak Mosaic Score (0-9), **FHBI** - Fusarium Head Blight Incidence Percent (0-100%), **FHBS** - Fusarium Head Blight Severity Percent (0-100%), **FHBX** - Fusarium Head Blight Severity Index

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

**ORGANIZATIONS ENTERING VARIETIES IN THE
2006 MICHIGAN WHEAT PERFORMANCE TRIALS**

AgriPro COKER
P.O. Box 411, 520 E. 1050 South
Brookston, IN 47923
Phone: 765-563-3111

North Star Intergrated Services
3893 Heritage Avenue
Suite B3
Okemos, MI 48864
517-347-8359

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

Pioneer – Hi-Bred International, Inc.
210 Westfield Drive
Archbold, OH 43502
Phone: 800-611-9569

Platinum Genetics
3490 Belle Chaseway
Suite 210
Lansing, MI 48911
Phone: 517-887-1620

Royster-Clark, Inc.
717 Robinson Rd. SE
Washington C.H., OH 43160
Phone: 740-869-2181

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

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

Hyland Seeds
2 Hyland Drive
Blenheim, Ontario
NOPIA0 CANADA
Phone: 519-676-7056

Steyer Seeds, Inc.
6154 North County Road 33
Tiffin, OH 44883
Phone: 419-992-4570

Michigan Crop Improvement
Association
P.O. Box 21008
Lansing, MI 48909
Phone: 517-332-3546