

Michigan State Wheat Variety Trial: 2004

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Comments on the 2004 Wheat Crop

The 2003/2004 Michigan wheat crop was subjected to unusually prolonged periods of rainfall throughout the flowering and grain fill periods. As a result, much of the crop was severely challenged by both Fusarium head blight (scab) and fungal leaf blotches. These diseases reduced yields and test weights in many fields. Scab infection also led to price discounts as a result of the causal organism's production of the mycotoxin DON (i.e., vomitoxin.) On the other hand, the incidence of rust infection was very low, and powdery mildew pressure was light to moderate. Flowering occurred earlier than that seen in the previous two years, but cool temperatures prolonged the grain fill period thus delaying harvest.

Multi-Year Performance Summary (Tables 1 and 2)

Tables 1 and 2 summarize performance of 66 varieties and experimental lines from 14 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 2004. In some instances (e.g. yield), data columns to the right of the 2004 data columns are multi-year averages. Only data for entries included in the relevant years' tests are found here. Not all entries have been tested in all years so the table has several blank cells. See the section titled 'Experimental' for details on how the trials were conducted and more detail on what the data in each column's data represent.

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, you 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)

The first six columns in this table each contain yield and test weight data from one of the six sites harvested for yield this year. The last column contains the same across-site yield average found in Table 1. Each row in the table represents a single entry in the test.

Choosing Varieties

MSU makes no endorsement of any wheat variety or brand. 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. This general concept applies to pre-harvest sprouting as well.

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.

Experimental

The 2004 State Wheat Variety Trial entries were planted at eight sites in 5 counties: Lenawee, Saginaw (2 yield trial sites), Clinton, Ionia (MSU Clarksville research station: scab disease nursery - no yield data obtained), Sanilac, and Ingham (one yield and one observation site). Appendix A (below) presents information on each of these sites. Plots were 12 feet long and had 7 rows at 6" row spacing. The trial was designed and executed as four replication alpha-lattice (14 blocks of 6 plots each) at all sites except the Ingham observation and Clarksville scab nurseries. 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 1.8 million seeds per acre in a solid stand planted in 6" 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. Grain moisture data is based on actual moisture at harvest. Yield data are 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 was taken in Lenawee and Ingham counties. Flowering date data was obtained at the Saginaw (#2) and Clarksville sites. 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 disease scores were taken at the Clinton and Lenawee 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 (#2) county site and two replications from the Ingham county site. 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 five to seven days, where zero indicates that there was no sprouting present.

Data on Fusarium Head Blight (scab) were obtained from the Lenawee yield test site and the Clarksville misted/inoculated nursery. Plots at the Lenawee site were uniformly challenged by scab irrespective of flowering date because of daily rainfall throughout the flowering period. The same is true for the Clarksville site, though the extent of scab was substantially higher at this site because of the inoculation (from lab-produced infected grain spread onto the field), and because artificial misting was employed throughout the entire flowering period.

This report presents data from field observations of symptoms (both sites.) Data for DON (deoxynivalenol, also known as vomitoxin) concentration were not available at the time this report was generated. That data will be available through the Website (www.msue.msu.edu/msuwheat/Variety_Results.html) as it becomes available. 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 number of spikes showing any scabby spikelets (incidence score); 2) the percentage of scabby spikelets within infected spikes (severity score); 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. Scab incidence and severity were recorded using the 0-9 scoring system at both Lenawee and Clarksville. The scab index data were obtained by a more rigorous approach that involved counting the number of spikes and spikelets within spikes of samples taken from the Lenawee site.

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 2003 State Variety trial. Flour yield is the ratio of the weight of extractable flour to the weight of milled grain, expressed as a percentage. The milling and baking quality scores reflect the overall grain quality. Higher numbers reflect higher quality.

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. Questions and comments regarding the research reported here should be directed to Rick Ward (517-285-9725). This information, along with results from previous years, can also be accessed through the Web at http://www.msue.msu.edu/msuwheat/Variety_Results.html.

2004 Michigan State University Wheat Variety Trials

Multi-year data are the most informative.

Table 1 : Multi-Year Performance Summary (Note: red wheats are on page 1, and white wheats are on page 2)

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Name	Grain Color	Yield: Bushels/Acre (adj. to 13% moisture)				Test Weight: lbs/Bushel				% Grain Moisture @ Harvest		Plant Height (Inches)		Flowering Date Days Past Jan 1		Powdery Mildew Score (0-9)
		Multi-Year Averages				Multi-Year Averages				2 YR	2 YR	2 YR	2 YR			
		2004	03-04	02-04	01-04	2004	03-04	02-04	01-04	2004	03-04	2004	03-04	2004	03-04	
Cedar	RED	83.1	88.2	87.2	85.8	57.5	58.2	58.5	58.6	16.8	16.1	34.2	36.5	153.2	160.0	0.4
RS 947	RED	82.3	-----	-----	-----	58.0	-----	-----	-----	16.9	-----	34.8	-----	153.3	-----	0.0
Pioneer Brand 25R37	RED	81.5	86.1	85.2	84.2	59.0	59.7	59.9	60.2	17.1	16.4	29.9	32.6	152.5	158.8	1.3
MSU Line D8006 - R	RED	80.9	-----	-----	-----	56.7	-----	-----	-----	15.7	-----	35.4	-----	152.5	-----	1.7
Cecil	RED	77.0	-----	-----	-----	57.0	-----	-----	-----	16.4	-----	33.3	-----	153.0	-----	2.0
Truman	RED	77.0	-----	-----	-----	60.2	-----	-----	-----	17.5	-----	35.4	-----	155.8	-----	3.5
Vigoro Tribute	RED	76.9	84.6	84.8	-----	59.7	60.9	61.3	-----	17.5	17.2	30.1	32.0	149.4	156.2	0.8
Pioneer Brand 25R47	RED	76.7	89.8	-----	-----	54.2	56.2	-----	-----	15.0	15.4	31.8	33.2	151.2	157.1	4.3
Hopewell	RED	76.3	85.4	85.3	82.6	57.5	58.5	58.9	59.2	15.9	15.1	33.4	35.2	153.0	159.7	1.7
Wiley	RED	76.3	-----	-----	-----	58.9	-----	-----	-----	16.5	-----	31.2	-----	148.7	-----	1.4
Genesis R045	RED	75.9	-----	-----	-----	57.0	-----	-----	-----	16.2	-----	31.9	-----	152.5	-----	1.1
OH 708	RED	75.9	-----	-----	-----	56.4	-----	-----	-----	16.1	-----	35.0	-----	153.2	-----	1.3
Douglas	RED	74.8	83.7	-----	-----	55.1	-----	-----	-----	15.3	15.0	33.6	36.0	154.2	160.8	3.7
Bravo	RED	74.4	83.9	84.6	82.2	56.7	58.6	59.4	59.8	15.6	15.2	33.9	36.3	149.5	155.8	2.0
Genesis R022	RED	74.3	82.2	80.7	-----	55.7	57.4	58.5	-----	15.2	14.8	34.0	36.4	149.0	155.8	3.0
Coker 9663	RED	74.1	80.9	78.5	-----	57.5	59.0	59.3	-----	16.8	16.6	35.7	38.9	151.9	158.5	1.9
MSU Line E1007	RED	74.0	83.9	-----	-----	55.8	58.0	-----	-----	15.4	15.5	34.6	35.9	151.7	159.0	1.3
VA97W-024	RED	73.9	-----	-----	-----	56.3	-----	-----	-----	16.2	-----	32.0	-----	153.4	-----	0.8
Coker 9375	RED	73.8	80.0	-----	-----	53.7	55.6	-----	-----	14.6	14.2	34.9	36.6	151.3	157.9	1.3
Coker 9312	RED	73.6	-----	-----	-----	57.5	-----	-----	-----	15.8	-----	30.1	-----	150.6	-----	1.6
Benton	RED	73.5	82.1	-----	-----	55.7	57.0	-----	-----	14.9	14.4	30.0	32.7	152.3	158.8	1.4
HS 250R	RED	73.4	-----	-----	-----	58.2	-----	-----	-----	16.8	-----	34.9	-----	151.4	-----	1.6
Genesis R047	RED	72.7	-----	-----	-----	55.5	-----	-----	-----	15.2	-----	31.2	-----	151.1	-----	0.8
Genesis R046	RED	72.4	-----	-----	-----	53.9	-----	-----	-----	14.5	-----	32.5	-----	149.7	-----	1.4
Genesis R036	RED	72.3	79.3	77.8	-----	54.1	55.9	57.2	-----	14.8	14.4	34.0	36.2	151.0	158.3	2.4
Bascom	RED	72.2	-----	-----	-----	56.7	-----	-----	-----	15.5	-----	34.5	-----	149.2	-----	3.7
Wonder	RED	72.2	-----	-----	-----	57.6	-----	-----	-----	15.9	-----	36.3	-----	152.2	-----	1.1
Genesis 9953	RED	72.0	80.5	79.0	77.6	55.1	56.8	57.4	57.9	14.9	14.5	34.6	36.8	152.4	158.7	3.3
McCormick	RED	71.9	79.8	80.4	-----	59.0	60.5	61.2	-----	16.8	16.5	29.4	30.7	150.4	157.5	0.4
Pioneer Brand 25R35	RED	71.7	-----	-----	-----	56.6	-----	-----	-----	15.5	-----	32.8	-----	152.7	-----	3.2
B970051	RED	71.3	-----	-----	-----	57.2	-----	-----	-----	15.7	-----	29.5	-----	153.0	-----	1.7
Genesis R035	RED	71.2	80.0	-----	-----	56.8	58.0	-----	-----	15.9	15.3	33.8	35.9	151.2	157.8	1.0
HS 222R	RED	70.7	79.3	-----	-----	56.3	57.9	-----	-----	15.4	14.7	35.0	36.2	149.3	156.4	4.6
Warwick	RED	70.3	-----	-----	-----	56.7	-----	-----	-----	15.4	-----	34.9	-----	151.3	-----	2.0
OH 645	RED	70.0	80.2	-----	-----	57.2	58.3	-----	-----	16.2	15.7	34.2	36.5	151.9	158.0	1.0
Daisy	RED	69.8	-----	-----	-----	54.5	-----	-----	-----	14.9	-----	31.7	-----	151.3	-----	4.6
VAN98W-342	RED	69.5	-----	-----	-----	56.7	-----	-----	-----	15.1	-----	28.2	-----	150.7	-----	1.0
Roane	RED	68.4	78.1	79.9	79.5	59.1	60.3	60.9	61.3	16.8	16.2	30.3	32.3	151.2	158.0	2.7
Coker 9474	RED	67.8	74.4	72.4	-----	60.3	61.4	61.7	-----	17.0	16.3	29.9	33.0	149.7	156.3	2.4
Autumn	RED	66.7	78.6	80.5	80.4	53.7	56.3	57.1	57.6	14.2	13.9	32.0	33.7	150.9	157.6	2.8
Jacob	RED	66.7	77.2	-----	-----	55.0	57.2	-----	-----	15.0	14.6	28.8	31.0	149.0	156.6	1.0
RS 919	RED	66.3	-----	-----	-----	57.5	-----	-----	-----	15.9	-----	34.0	-----	150.8	-----	3.9
HS 243R	RED	65.7	77.1	-----	-----	55.8	57.5	-----	-----	15.6	15.0	32.9	34.8	150.9	157.2	1.6
Sisson	RED	65.2	76.3	77.7	77.7	55.5	57.0	58.0	58.4	15.3	14.8	29.7	31.6	149.2	156.6	1.0

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Table 1 : Multi-Year Performance Summary (Note: red wheats are on page 1, and white wheats are on page 2)

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Name	Grain Color	Yield: Bushels/Acre (adj. to 13% moisture)				Test Weight: lbs/Bushel				% Grain Moisture @ Harvest		Plant Height (Inches)		Flowering Date Days Past Jan 1		Powdery Mildew Score (0-9)
		Multi-Year Averages				Multi-Year Averages										
		2004	2 YR 03-04	3 YR 02-04	4 YR 01-04	2004	2 YR 03-04	3 YR 02-04	4 YR 01-04	2004	2 YR 03-04	2004	2 YR 03-04	2004	2 YR 03-04	
TW 95412	WHITE	77.6	-----	-----	-----	57.4	-----	-----	-----	16.8	-----	38.6	-----	154.4	-----	3.3
Vigoro V9314W	WHITE	77.5	83.1	-----	-----	57.7	58.3	-----	-----	16.7	15.8	39.1	40.5	155.5	161.6	1.4
Kelley	WHITE	77.3	83.0	-----	-----	57.6	58.2	-----	-----	16.8	15.8	39.6	40.8	155.7	161.6	2.3
Whitby	WHITE	76.8	-----	-----	-----	56.6	-----	-----	-----	16.4	-----	39.7	-----	156.2	-----	2.9
MSU Line E1008 - R5	WHITE	76.4	-----	-----	-----	56.9	-----	-----	-----	16.3	-----	34.1	-----	151.9	-----	1.3
Pearl	WHITE	75.8	82.9	82.6	81.3	56.7	58.3	58.5	58.8	16.1	15.7	34.2	36.1	152.8	159.5	1.0
MSU D6234	WHITE	75.6	83.8	82.3	80.2	58.8	59.4	59.7	59.7	16.9	16.1	35.2	37.8	153.8	160.5	0.9
MSU Line E1007 - W	WHITE	75.5	-----	-----	-----	56.1	-----	-----	-----	15.5	-----	34.7	-----	151.3	-----	4.0
AC Ron	WHITE	75.3	83.0	80.7	78.9	55.4	57.0	57.4	57.5	15.8	15.1	39.2	41.2	155.0	161.7	2.0
Aubrey	WHITE	75.1	81.8	-----	-----	58.4	59.5	-----	-----	16.7	15.9	33.0	35.3	151.3	158.0	1.1
MSU Line D8006	WHITE	74.6	84.5	82.9	82.1	53.7	56.3	56.8	57.2	14.4	14.3	34.5	36.7	151.5	157.7	1.9
Aurora	WHITE	72.9	80.7	-----	-----	57.3	58.4	-----	-----	16.0	15.3	37.4	39.7	155.2	161.6	2.7
AC Mountain	WHITE	72.3	82.0	81.3	79.1	56.7	57.6	57.7	57.8	15.8	14.9	38.6	40.1	154.7	160.6	2.1
MSU Line E0009 - A	WHITE	70.9	-----	-----	-----	57.5	-----	-----	-----	18.2	-----	36.9	-----	158.5	-----	5.0
HS X03W	WHITE	70.5	-----	-----	-----	59.0	-----	-----	-----	18.0	-----	36.9	-----	157.8	-----	0.7
MSU Line E0001 - A	WHITE	70.3	-----	-----	-----	56.7	-----	-----	-----	17.0	-----	36.2	-----	155.8	-----	1.0
Caledonia	WHITE	70.2	78.8	80.0	78.5	54.8	56.6	57.4	57.4	15.2	14.7	32.6	34.6	153.3	159.6	2.3
Richland	WHITE	70.1	77.2	77.8	-----	57.6	58.7	59.0	-----	16.2	15.5	35.9	38.3	154.7	160.6	1.3
Pioneer Brand 25W41	WHITE	69.9	-----	-----	-----	56.7	-----	-----	-----	15.6	-----	32.5	-----	152.8	-----	3.7
MSU Line D9044	WHITE	69.6	81.5	-----	-----	55.5	57.5	-----	-----	15.4	15.1	31.1	33.8	153.9	159.9	2.7
Frankenmuth	WHITE	68.7	74.3	71.3	69.7	58.7	59.1	58.9	58.7	17.6	16.4	42.7	45.8	158.2	164.3	2.9
VA97W-375WS	WHITE	66.9	79.2	79.5	-----	55.1	57.3	58.2	-----	15.1	15.0	27.8	30.2	152.0	157.8	1.0
Trial Mean (81 Entries)		72.8	81.2	80.6	79.9	56.7	58.0	58.8	58.7	15.9	15.3	33.7	35.8	152.6	158.7	2.2
LSD		4.6	6.0	5.1	4.6	1.3	1.6	1.4	1.1	0.6	1.0	1.4	1.8	2.0	1.3	1.7
CV		5.6	3.6	3.8	4.1	2.0	1.4	1.5	1.4	3.1	3.2	2.1	2.4	1.9	0.4	46.1

LSD = least significant difference, i.e. differences smaller than the LSD are probably due to chance. CV = low values indicated higher precision.

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Multi-year data are the most informative.

Table 2 : Multi-Year Performance Summary (Note: red wheats are on page 3, and white wheats are on page 4)

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Name	Grain Color	Septoria Tritici (Leaf Blotch) Score (0-9)		Pre-Harvest Sprout Score (0-9)		2004 Fusarium Head Blight (Scab) Data			Milling and Baking Properties (2003 Crop)				Company
		2004	03-04	2004	03-04	Field Observation Symptoms		% Infection Index	% Flour Yield	% Protein In Flour	Milling Quality Score	Baking Quality Score	
						Scores (0-9)							
		Incidence	Severity										
Cedar	RED	4.9	4.7	2.8	1.9	8.0	5.4	32.3	69.5	8.4	64.5	73.2	Michigan Crop Improvement Association
RS 947	RED	3.8	-----	2.7	-----	8.2	5.5	21.4	-----	-----	-----	-----	Rupp Seeds, Inc.
Pioneer Brand 25R37	RED	3.6	4.6	4.4	3.6	8.6	7.5	47.7	69.3	8.6	63.8	50.5	Pioneer, A DuPont Company
MSU Line D8006 - R	RED	6.5	-----	5.7	-----	8.1	6.5	44.1	-----	-----	-----	-----	Michigan State University
Cecil	RED	5.1	-----	1.3	-----	8.2	6.7	41.9	-----	-----	-----	-----	Ohio State University
Truman	RED	4.4	-----	1.7	-----	5.9	4.3	31.1	-----	-----	-----	-----	Missouri Seed Improvement Association
Vigoro Tribute	RED	3.3	4.2	1.9	1.7	8.5	7.1	68.0	70.6	8.6	70.0	62.2	Royster - Clark, Inc.
Pioneer Brand 25R47	RED	4.3	5.4	7.1	6.4	8.3	6.7	46.1	72.7	8.2	80.8	86.9	Pioneer, A DuPont Company
Hopewell	RED	5.1	4.8	1.5	1.3	8.4	7.4	45.3	70.6	9.0	70.0	71.5	Michigan Crop Improvement Association
Wiley	RED	4.0	-----	3.1	-----	8.9	7.7	48.8	-----	-----	-----	-----	Steyer Seeds
Genesis R045	RED	5.0	-----	5.6	-----	8.4	7.5	34.1	-----	-----	-----	-----	Genesis Brand Seed
OH 708	RED	4.2	-----	2.5	-----	8.2	7.4	46.7	-----	-----	-----	-----	Ohio State University
Douglas	RED	3.4	4.5	4.7	5.9	7.9		24.9	71.0	9.0	72.0	74.0	AgriPro Wheat
Bravo	RED	5.0	5.3	1.5	2.2	9.0	8.3	60.8	71.0	9.8	72.0	44.5	Michigan Crop Improvement Association
Genesis R022	RED	4.5	6.3	4.6	4.4	8.6	7.6	46.7	70.4	8.6	69.1	59.0	Genesis Brand Seed
Coker 9663	RED	3.6	3.1	2.9	2.3	7.7	7.5	45.4	70.2	8.7	68.1	58.2	Syngenta Seeds, Inc.
MSU Line E1007	RED	5.3	4.9	3.7	3.2	8.1	6.7	59.4	71.8	8.9	76.1	71.0	Michigan State University
VA97W-024	RED	4.2	-----	3.6	-----	8.2	7.7	35.5	-----	-----	-----	-----	VPI & SU / VCIA
Coker 9375	RED	5.7	5.1	4.2	4.7	9.0	8.6	71.7	71.6	9.0	75.1	54.5	Syngenta Seeds, Inc.
Coker 9312	RED	3.2	-----	1.5	-----	9.1	8.5	70.2	-----	-----	-----	-----	Syngenta Seeds, Inc.
Benton	RED	6.3	6.4	2.7	4.5	8.7	7.7	55.4	68.0	9.3	57.0	52.0	AgriPro Wheat
HS 250R	RED	5.2	-----	5.8	-----	8.5	8.4	62.2	-----	-----	-----	-----	Harrington Seeds, Inc.
Genesis R047	RED	4.4	-----	3.2	-----	8.8	8.7	79.6	-----	-----	-----	-----	Genesis Brand Seed
Genesis R046	RED	5.6	-----	1.6	-----	8.7	8.5	43.5	-----	-----	-----	-----	Genesis Brand Seed
Genesis R036	RED	5.8	6.2	6.6	6.3	8.5	8.2	63.9	71.4	8.1	74.0	71.0	Genesis Brand Seed
Bascom	RED	4.7	-----	6.0	-----	8.7	7.7	39.5	-----	-----	-----	-----	Steyer Seeds
Wonder	RED	5.7	-----	9.0	-----	7.7	5.8	46.6	-----	-----	-----	-----	AgriPro Wheat
Genesis 9953	RED	5.4	4.7	5.9	5.5	8.6	8.0	84.0	69.5	7.6	64.8	48.7	Genesis Brand Seed
McCormick	RED	4.7	4.9	0.7	0.7	8.5	7.4	63.3	70.9	9.7	71.7	55.5	VPI & SU / VCIA
Pioneer Brand 25R35	RED	5.3	-----	2.2	-----	7.6	5.3	29.0	-----	-----	-----	-----	Pioneer, A DuPont Company
B970051	RED	4.1	-----	5.7	-----	8.5	8.3	56.1	-----	-----	-----	-----	Syngenta Seeds, Inc.
Genesis R035	RED	5.5	6.5	5.6	5.4	8.3	7.5	43.1	68.8	9.4	61.3	55.0	Genesis Brand Seed
HS 222R	RED	5.2	6.4	3.8	5.1	8.9	8.2	38.4	71.8	8.4	76.1	68.2	Harrington Seeds, Inc.
Warwick	RED	5.0	-----	2.2	-----	8.6	7.4	56.2	-----	-----	-----	-----	Hyland Seeds
OH 645	RED	5.8	6.9	8.7	8.1	8.3	7.5	28.8	72.9	9.0	81.9	73.2	Michigan Crop Improvement Association
Daisy	RED	6.1	-----	2.8	-----	8.9	8.7	80.2	-----	-----	-----	-----	Michigan Crop Improvement Association
VAN98W-342	RED	5.8	-----	2.8	-----	8.3	7.0	41.9	-----	-----	-----	-----	VPI & SU / VCIA
Roane	RED	3.8	4.7	2.5	3.9	8.5	7.7	59.9	69.4	9.0	64.0	55.5	Michigan Crop Improvement Association
Coker 9474	RED	4.7	5.6	2.2	2.4	8.9	8.2	52.5	70.4	10.3	69.2	61.5	Syngenta Seeds, Inc.
Autumn	RED	6.0	6.3	6.1	5.8	8.5	7.0	68.7	73.0	8.8	82.2	70.4	Michigan Crop Improvement Association
Jacob	RED	5.5	6.0	7.9	7.2	8.9	9.0	60.5	70.0	9.2	67.4	49.4	Steyer Seeds
RS 919	RED	6.1	-----	2.1	-----	9.1	8.2	60.8	-----	-----	-----	-----	Rupp Seeds, Inc.
HS 243R	RED	5.8	5.2	4.7	4.3	9.1	8.6	71.8	71.1	9.1	72.5	65.7	Harrington Seeds, Inc.
Sisson	RED	5.0	6.5	5.3	6.0	8.7	8.2	74.2	70.8	8.7	71.2	57.0	Michigan Crop Improvement Association

2004 Michigan State University Wheat Variety Trials

Multi-year data are the most informative.

Table 2 : Multi-Year Performance Summary (Note: red wheats are on page 3, and white wheats are on page 4)

MSU makes no endorsement of any variety or brand.

Name	Grain Color	Septoria Tritici (Leaf Blotch) Score (0-9)		Pre-Harvest Sprout Score (0-9)		2004 Fusarium Head Blight (Scab) Data			Milling and Baking Properties (2003 Crop)				Company
		2004	03-04	2004	03-04	Field Observation Symptoms			Flour Yield	% Protein In Flour	Milling Quality Score	Baking Quality Score	
						Scores (0-9)		% Infection					
		Incidence	Severity	FHB Index									
TW 95412	WHITE	4.3	-----	9.0	-----	7.1	6.7	55.4	-----	-----	-----	-----	Hyland Seeds
Vigoro V9314W	WHITE	4.0	4.3	9.0	8.7	8.0	5.6	55.8	71.0	8.5	72.4	34.0	Royster - Clark, Inc.
Kelley	WHITE	4.0	4.8	9.0	8.8	7.9	6.2	57.3	71.6	7.7	75.3	18.5	Harrington Seeds, Inc.
Whitby	WHITE	3.7	-----	8.6	-----	7.2	4.5	41.8	-----	-----	-----	-----	Hyland Seeds
MSU Line E1008 - R5	WHITE	5.2	-----	8.2	-----	8.6	7.3	64.3	-----	-----	-----	-----	Michigan State University
Pearl	WHITE	4.3	4.2	8.8	8.2	7.9	7.7	55.5	71.2	9.4	73.2	57.0	Michigan Crop Improvement Association
MSU D6234	WHITE	4.3	3.9	9.0	8.6	8.2	6.5	44.1	70.4	9.0	69.0	53.2	Michigan Crop Improvement Association
MSU Line E1007 - W	WHITE	5.0	-----	8.4	-----	7.5	6.0	52.1	-----	-----	-----	-----	Michigan State University
AC Ron	WHITE	4.2	4.1	9.0	9.0	8.3	6.4	51.2	69.3	9.0	63.5	63.2	Michigan Crop Improvement Association
Aubrey	WHITE	4.9	6.0	8.7	8.6	8.6	7.6	19.2	70.8	9.1	71.1	55.7	Genesis Brand Seed
MSU Line D8006	WHITE	5.6	5.8	8.7	7.3	8.0	7.4	50.7	73.4	9.2	84.0	65.2	Michigan State University
Aurora	WHITE	4.3	4.9	8.7	8.6	8.3	6.1	31.7	70.2	9.3	68.1	67.7	Michigan Crop Improvement Association
AC Mountain	WHITE	4.6	5.3	8.7	8.6	8.2	6.8	55.0	72.6	8.7	80.4	73.5	Michigan Crop Improvement Association
MSU Line E0009 - A	WHITE	3.7	-----	8.6	-----	6.5	3.1	14.6	-----	-----	-----	-----	Michigan State University
HS X03W	WHITE	4.2	-----	8.7	-----	6.7	4.3	29.6	-----	-----	-----	-----	Harrington Seeds, Inc.
MSU Line E0001 - A	WHITE	4.9	-----	5.7	-----	7.3	4.6	23.2	-----	-----	-----	-----	Michigan State University
Caledonia	WHITE	4.6	5.1	9.0	8.7	8.2	7.5	68.3	72.2	8.5	78.0	69.7	Genesis Brand Seed and Harrington Seeds, Inc.
Richland	WHITE	5.0	5.0	9.0	8.9	8.2	6.6	21.5	71.2	8.8	73.0	64.0	Genesis Brand Seed
Pioneer Brand 25W41	WHITE	4.7	-----	8.6	-----	8.3	6.1	59.2	-----	-----	-----	-----	Pioneer, A DuPont Company
MSU Line D9044	WHITE	5.4	5.2	8.9	8.6	8.2	7.6	66.1	71.4	9.1	74.0	57.0	Michigan State University
Frankenmuth	WHITE	4.8	3.9	7.8	8.4	7.6	3.4	38.5	70.7	9.3	70.5	65.2	Michigan State University
VA97W-375WS	WHITE	4.9	3.7	6.4	6.9	9.0	7.7	63.1	69.8	9.1	66.1	53.2	VPI & SU / VCIA
Trial Mean (81 Entries)		4.9	5.1	6.0	5.7	8.2	6.9	50.5	-----	-----	-----	-----	
LSD		1.5	2.0	2.2	2.0	1.4	1.6	29.6	-----	-----	-----	-----	
CV		15.4	1.0	22.7	17.4	8.8	11.3	27.9	-----	-----	-----	-----	

LSD = least significant difference, i.e. differences smaller than the LSD are probably due to chance. CV = low values indicated higher precision.

2004 Michigan State University Wheat Variety Trials

Multi-year data are the most informative.

Table 3 : Single Site Yield and Test Weight Performance Summary (Note: red wheats are on page 5, and white wheats are on page 6) MSU makes no endorsement of any variety or brand.

Name	Grain Color	County Locations												Average All Sites		CAUTION: Single site/single year data should not be used to make variety choice decisions. Company
		Lenawee		Saginaw (#1)		Sanilac		Ingham		Clinton		Saginaw (#2)		Yield bu/ac	Test Weight	
		Yield bu/ac	Test Weight	Yield bu/ac	Test Weight	Yield bu/ac	Test Weight	Yield bu/ac	Test Weight	Yield bu/ac	Test Weight	Yield bu/ac	Test Weight			
Cedar	RED	60.5	52.3	100.1	60.6	101.7	59.4	65.7	55.3	84.0	57.7	86.8	59.7	83.1	57.5	Michigan Crop Improvement Association
RS 947	RED	60.9	53.1	100.2	60.9	97.8	60.1	64.0	56.0	82.6	58.2	88.1	59.8	82.3	58.0	Rupp Seeds, Inc.
Pioneer Brand 25R37	RED	72.5	57.7	97.9	60.7	95.9	60.3	64.8	56.6	76.0	57.8	81.6	61.0	81.5	59.0	Pioneer, A DuPont Company
MSU Line D8006 - R	RED	62.2	52.2	99.4	59.3	96.2	60.2	68.8	55.3	75.3	54.9	83.3	58.1	80.9	56.7	Michigan State University
Cecil	RED	58.0	51.7	99.5	60.2	89.5	59.9	62.0	54.1	72.9	56.5	80.0	59.6	77.0	57.0	Ohio State University
Truman	RED	69.8	58.3	85.9	61.2	87.5	61.9	64.2	59.0	76.6	59.0	77.7	61.9	77.0	60.2	Missouri Seed Improvement Association
Vigoro Tribute	RED	62.2	57.1	89.1	61.2	93.7	63.4	64.9	57.7	71.3	57.7	80.2	61.0	76.9	59.7	Royster - Clark, Inc.
Pioneer Brand 25R47	RED	66.3	49.8	99.4	57.2	85.5	56.1	57.8	52.7	74.2	53.3	77.2	55.9	76.7	54.2	Pioneer, A DuPont Company
Hopewell	RED	59.6	53.4	95.7	60.5	87.3	60.5	60.4	54.8	74.1	56.2	80.6	59.8	76.3	57.5	Michigan Crop Improvement Association
Wiley	RED	67.9	57.1	91.4	60.6	89.7	61.0	61.1	57.1	73.8	57.3	74.0	60.0	76.3	58.9	Steyer Seeds
Genesis R045	RED	57.6	52.2	94.3	59.2	94.5	60.7	57.6	55.3	72.2	55.4	78.9	59.1	75.9	57.0	Genesis Brand Seed
OH 708	RED	58.3	50.9	96.9	58.8	89.9	59.5	58.7	54.2	73.4	55.8	78.0	59.2	75.9	56.4	Ohio State University
Douglas	RED	65.8	51.7	96.8	58.6	86.9	57.7	55.0	52.7	66.7	51.9	77.6	57.7	74.8	55.1	AgriPro Wheat
Bravo	RED	61.8	55.0	94.7	58.4	83.4	59.0	58.0	54.9	72.2	54.8	76.1	58.1	74.4	56.7	Michigan Crop Improvement Association
Genesis R022	RED	64.6	55.1	92.5	58.3	85.4	53.6	57.3	54.7	71.5	55.0	74.6	57.3	74.3	55.7	Genesis Brand Seed
Coker 9663	RED	63.3	54.2	84.8	59.7	89.7	60.6	59.1	56.2	68.2	55.2	79.4	58.8	74.1	57.5	Syngenta Seeds, Inc.
MSU Line E1007	RED	56.7	50.8	98.3	58.9	85.9	58.8	59.1	53.6	70.6	54.5	73.1	58.4	74.0	55.8	Michigan State University
VA97W-024	RED	58.4	51.5	94.4	58.9	86.7	60.2	54.9	52.7	72.6	55.0	76.6	59.4	73.9	56.3	VPI & SU / VCIA
Coker 9375	RED	53.8	46.8	90.0	56.7	91.6	58.3	58.2	52.2	68.2	51.0	80.8	57.3	73.8	53.7	Syngenta Seeds, Inc.
Coker 9312	RED	60.4	53.2	92.4	59.5	85.1	61.2	62.6	55.5	67.0	55.7	73.8	59.6	73.6	57.5	Syngenta Seeds, Inc.
Benton	RED	59.3	50.6	92.3	59.1	85.4	59.2	54.9	52.1	71.8	54.7	77.2	58.4	73.5	55.7	AgriPro Wheat
HS 250R	RED	61.0	55.1	92.5	59.6	77.4	61.0	56.5	56.7	72.7	57.1	80.0	59.7	73.4	58.2	Harrington Seeds, Inc.
Genesis R047	RED	54.9	50.7	90.9	57.6	94.9	61.7	57.1	52.5	64.8	52.7	73.7	58.0	72.7	55.5	Genesis Brand Seed
Genesis R046	RED	57.5	47.7	90.6	56.6	90.4	59.2	54.3	51.6	69.0	52.5	72.4	55.5	72.4	53.9	Genesis Brand Seed
Genesis R036	RED	57.9	49.7	97.9	58.9	80.7	53.6	54.6	51.7	64.8	53.5	77.9	57.4	72.3	54.1	Genesis Brand Seed
Bascom	RED	65.8	55.6	89.9	58.9	81.1	59.0	55.9	54.3	68.5	55.4	71.7	56.9	72.2	56.7	Steyer Seeds
Wonder	RED	59.3	54.1	90.7	59.4	80.7	59.7	58.8	56.3	73.6	56.7	70.2	59.1	72.2	57.6	AgriPro Wheat
Genesis 9953	RED	54.0	50.2	90.0	58.1	86.4	58.4	50.1	52.1	72.7	53.5	78.6	58.2	72.0	55.1	Genesis Brand Seed
McCormick	RED	56.3	54.7	83.7	61.2	87.6	63.0	61.3	56.2	69.7	57.9	72.7	60.8	71.9	59.0	VPI & SU / VCIA
Pioneer Brand 25R35	RED	63.2	52.5	90.5	60.0	79.1	59.5	49.5	52.8	75.6	56.7	72.4	58.3	71.7	56.6	Pioneer, A DuPont Company
B970051	RED	62.9	53.3	81.5	59.2	80.7	59.6	56.8	55.2	72.2	56.2	73.9	59.9	71.3	57.2	Syngenta Seeds, Inc.
Genesis R035	RED	58.9	51.8	88.1	60.1	84.1	59.9	48.8	53.2	72.4	57.3	74.8	58.6	71.2	56.8	Genesis Brand Seed
HS 222R	RED	58.9	51.3	91.9	59.7	82.7	58.7	50.7	53.8	71.7	57.0	68.1	57.1	70.7	56.3	Harrington Seeds, Inc.
Warwick	RED	57.4	52.3	88.3	60.2	83.5	60.0	52.8	54.2	69.5	54.5	70.0	58.7	70.3	56.7	Hyland Seeds
OH 645	RED	59.0	53.6	94.8	60.1	76.7	59.5	55.6	55.9	64.7	55.3	69.1	59.0	70.0	57.2	Michigan Crop Improvement Association
Daisy	RED	52.8	49.4	93.5	58.0	85.2	59.2	53.0	52.3	60.7	51.7	73.6	56.2	69.8	54.5	Michigan Crop Improvement Association
VAN98W-342	RED	58.4	51.9	81.7	59.3	81.1	60.6	55.4	54.1	69.1	55.3	71.0	59.0	69.5	56.7	VPI & SU / VCIA
Roane	RED	61.2	56.4	86.5	61.7	77.0	61.8	46.9	57.1	67.5	57.7	71.4	59.8	68.4	59.1	Michigan Crop Improvement Association
Coker 9474	RED	62.5	59.5	78.4	61.3	74.7	62.4	52.7	58.9	68.5	59.1	70.1	60.8	67.8	60.3	Syngenta Seeds, Inc.
Autumn	RED	47.5	48.3	92.2	56.9	81.8	56.9	45.9	51.0	63.6	52.5	68.9	56.4	66.7	53.7	Michigan Crop Improvement Association
Jacob	RED	55.1	48.7	84.6	58.1	76.2	58.0	48.8	53.1	67.0	55.0	68.7	57.0	66.7	55.0	Steyer Seeds
RS 919	RED	58.2	54.4	87.9	59.9	78.3	59.5	47.2	55.6	63.1	56.8	62.9	58.5	66.3	57.5	Rupp Seeds, Inc.
HS 243R	RED	47.5	50.4	84.9	58.1	79.3	59.8	50.1	54.3	64.7	53.8	67.8	58.3	65.7	55.8	Harrington Seeds, Inc.
Sisson	RED	49.3	49.7	82.6	58.3	76.4	59.9	50.6	53.3	68.4	54.4	64.0	57.3	65.2	55.5	Michigan Crop Improvement Association

2004 Michigan State University Wheat Variety Trials

Multi-year data are the most informative.

Table 3 : Single Site Yield and Test Weight Performance Summary (Note: red wheats are on page 5, and white wheats are on page 6) MSU makes no endorsement of any variety or brand.

Name	Grain Color	County Locations												Average All Sites		CAUTION: Single site/single year data should not be used to make variety choice decisions.
		Lenawee		Saginaw (#1)		Sanilac		Ingham		Clinton		Saginaw (#2)				
		Yield bu/ac	Test Weight	Yield bu/ac	Test Weight	Yield bu/ac	Test Weight	Yield bu/ac	Test Weight	Yield bu/ac	Test Weight	Yield bu/ac	Test Weight	Yield bu/ac	Test Weight	
TW 95412	WHITE	60.5	52.4	93.4	59.5	94.3	60.4	65.1	56.4	74.2	56.4	78.3	59.4	77.6	57.4	Hyland Seeds
Vigoro V9314W	WHITE	61.0	53.2	92.9	59.4	87.2	59.7	67.5	57.0	74.2	56.7	81.9	59.9	77.5	57.7	Royster - Clark, Inc.
Kelley	WHITE	61.3	53.3	93.3	59.7	91.1	59.9	64.7	56.7	74.6	56.4	78.7	59.8	77.3	57.6	Harrington Seeds, Inc.
Whitby	WHITE	59.7	53.2	92.3	58.6	88.1	58.1	69.3	56.3	72.6	55.1	79.0	58.5	76.8	56.6	Hyland Seeds
MSU Line E1008 - R5	WHITE	62.3	52.0	96.2	60.0	90.6	61.1	64.2	54.7	69.1	54.1	76.1	59.4	76.4	56.9	Michigan State University
Pearl	WHITE	49.5	48.3	95.3	60.1	90.9	60.6	60.1	55.3	73.3	54.9	85.9	61.0	75.8	56.7	Michigan Crop Improvement Association
MSU D6234	WHITE	65.2	55.1	90.9	60.4	80.1	62.2	62.5	56.2	76.5	57.6	78.2	61.1	75.6	58.8	Michigan Crop Improvement Association
MSU Line E1007 - W	WHITE	60.2	52.1	97.3	58.1	86.0	58.6	64.0	55.1	73.0	54.4	72.7	58.2	75.5	56.1	Michigan State University
AC Ron	WHITE	60.0	51.3	92.7	58.5	89.0	58.4	60.1	53.3	69.0	53.0	80.9	58.0	75.3	55.4	Michigan Crop Improvement Association
Aubrey	WHITE	63.3	55.6	91.1	60.0	88.9	61.4	60.8	56.6	72.0	55.9	74.5	60.8	75.1	58.4	Genesis Brand Seed
MSU Line D8006	WHITE	62.3	50.2	94.8	56.9	84.9	55.1	64.1	52.0	70.0	52.7	71.7	55.2	74.6	53.7	Michigan State University
Aurora	WHITE	58.5	52.9	89.1	59.6	83.2	60.6	60.8	55.4	70.8	55.5	74.9	60.0	72.9	57.3	Michigan Crop Improvement Association
AC Mountain	WHITE	56.6	51.5	88.7	58.9	86.2	59.8	55.1	54.7	74.1	56.3	72.8	59.2	72.3	56.7	Michigan Crop Improvement Association
MSU Line E0009 - A	WHITE	66.1	56.3	84.0	59.2	75.9	57.5	63.1	57.9	68.1	57.1	67.9	57.1	70.9	57.5	Michigan State University
HS X03W	WHITE	62.3	55.8	84.9	61.7	81.6	60.4	63.3	58.9	66.1	57.4	64.7	59.5	70.5	59.0	Harrington Seeds, Inc.
MSU Line E0001 - A	WHITE	57.2	52.8	83.6	59.5	80.1	57.9	59.3	56.6	69.9	55.2	71.5	58.1	70.3	56.7	Michigan State University
Caledonia	WHITE	54.0	48.3	94.8	57.8	82.7	59.1	52.0	53.2	67.2	53.2	70.2	57.1	70.2	54.8	Genesis Brand Seed and Harrington Seeds, Inc.
Richland	WHITE	57.1	54.3	85.9	60.2	81.8	61.1	60.8	54.9	66.6	55.9	68.2	59.3	70.1	57.6	Genesis Brand Seed
Pioneer Brand 25W41	WHITE	62.4	52.5	94.5	59.1	68.8	59.1	54.7	54.1	70.8	56.5	67.9	58.7	69.9	56.7	Pioneer, A DuPont Company
MSU Line D9044	WHITE	57.8	50.6	91.0	58.4	78.5	58.6	54.4	53.9	66.6	53.6	69.1	57.9	69.6	55.5	Michigan State University
Frankenmuth	WHITE	58.7	57.2	79.3	60.3	75.3	59.7	62.6	57.5	66.9	57.7	69.1	59.8	68.7	58.7	Michigan State University
VA97W-375WS	WHITE	50.2	48.1	84.4	58.6	84.7	60.5	49.7	52.5	63.0	52.2	69.5	58.5	66.9	55.1	VPI & SU / VCIA
Trial Mean (81 Entries)		59.5	52.5	91.4	59.2	84.2	59.6	57.9	54.7	70.0	55.2	73.7	58.7	72.8	56.7	
LSD		3.1	1.4	4.4	0.5	5.8	2.5	4.4	1.2	4.0	0.7	5.3	0.9	4.6	1.3	
CV		3.5	2.0	3.2	0.5	4.7	2.9	5.1	1.5	3.8	0.9	5.0	1.0	5.6	2.0	

LSD = least significant difference, i.e. differences smaller than the LSD are probably due to chance. CV = low values indicated higher precision.

2004 Michigan State University Wheat Variety Trials

Appendix A. Trial Site Descriptions for 2004 MSU Wheat Variety Trials.

	CLINTON COUNTY	INGHAM COUNTY		LENAWEE COUNTY	SANILAC COUNTY	SAGINAW COUNTY (1)	SAGINAW COUNTY (2)	IONIA COUNTY
		YIELD TRIAL	OBSERVATION					
COOPERATOR	ROGER GABLE	OESTERLE BROTHERS	MICHIGAN STATE UNIVERSITY	WOODS SEED FARM	STOUGHTENBURG FARMS	STUART BIERLEIN	FRED SILER	MSU CLARKSVILLE RESEARCH STATION
NEAREST CITY	MIDDLETON	MASON	MASON	BRITTON	SANDUSKY	GERA	MERRILL	CLARKSVILLE
PLANTING DATE	10/08/03	10/09/03	10/10/03	10/11/03	10/01/03	09/29/03	09/30/03	10/13/03
HARVEST DATE	07/20/04	07/14/04		07/13/04	07/23/04	07/21/04	07/19/04	
PRE-PLANT FERTILIZER	200 # 10-26-26	350# 6-24-24	200# 6-24-24	250#6-22-22	150# 10-20-20+200# Potash	300# 5-13-33+1%Mg+0.4Cu	200# 10-12-13+1%Mn+100#Gyp+10#Cu	250# 19-19-20
COMMENTS	moderate to heavy scab pressure, depedning on flowering date; heavy leaf blotch pressure	moderate to heavy scab pressure, depedning on flowering date; heavy leaf blotch pressure	unreplicated observation site	extremely heavy, uniform scab pressure; heavy leaf blotch pressure	low disease pressure	light to moderate scab pressure, depending on flowering date; moderate leaf blotch pressure	light to moderate scab pressure, depending on flowering date; moderate leaf blotch pressure	Mist irrigated and scab inoculated
AVERAGE YIELD (BUSHELS / ACRE)	70.0	57.9	N / A	59.5	84.2	91.4	73.7	N / A
AVERAGE TEST WEIGHT (LBS. / BUSHEL)	55.2	54.7	N / A	52.5	59.6	59.2	58.7	N / A
AVERAGE PERCENT GRAIN MOISTURE	16.6	14.5	N / A	13.7	16.4	16.2	17.8	N / A
OTHER DATA (NUMBER OF REPS)	SEPT (2)	PLHT (4); SPROUT (2)	SPROUT (1)	PLHT (4); SEPT (2); FHBI (3); FHBS (3); FHBX (1)			FD (3); SPROUT (4); PM (3)	FD (2); FHBI (3); FHBS (3)

*OTHER DATA: **FD** – Flowering Date, **PLHT** - Plant Height in Inches, **SPROUT** – In-Head Pre-Harvest Sprouting Score (0-9), **SEPT** – Septoria Score (0-9), **PM** - Powdery Mildew Score (0-9), **FHBI** - Fusarium Head Blight Incidence Score (0-9), **FHBS** - Fusarium Head Blight Severity Score (0-9) **FHBX** - Fusarium Head Blight Index

**ORGANIZATIONS ENTERING VARIETIES IN THE
2004 MICHIGAN WHEAT VARIETY TRIALS**

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

Pioneer – A Dupont Company
210 Westfield Drive
Archbold, OH 43502
Phone: 800-611-9569

Genesis Brand Seed
P.O. Box 21085
Lansing, MI 48909
Phone: 517-887-1684

Royster-Clark, Inc.
717 Robinson Rd. SE
Washington C.H., Ohio 73160
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
Nain Research Lab
RR#1 111087 Petty St.
Ailsa nCraig, ON N0M 1A0
CANADA
519-232-4341

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

Syngenta Seeds, Inc.
P.O. Box 1240
Winterville, N.C. 28590
Phone: 252-746-3004

Missouri Seed Improvement
Association
3211 Lemone Industrial Blvd.
Columbia, MO 65201-8245
Phone: 573-449-0586

Virginia Polytechnic Institute & State
University / Virginia Crop Improvement
P.O. Box 338
Warsaw, VA 22572
Phone: 804-333-3485

Ohio State University
1680 Madison Ave.
Wooster, OH 44691
Phone: 573-449-0586