

**Project Title:** Winter Wheat Preliminary Yield Trial

**Objective:** To test for agronomic performance of early winter wheat lines.

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**Summary:**

Thirty-six winter wheat genetic lines were tested in this preliminary trial. See table 1 for the detailed management practices. Yield (bu/ac) ranged from 81.3 (MTFH2290) to 144.8 (MT2280). Protein percentage ranged from 10.8 (MTFH2292 & MT2280) to 13 (MT2278). Test weight (lb/bu) ranged from 62 (MT2278) to 65.8 (MT2286). Heading dates (Julian) ranged from 158 (MT2282) to 168 (MTFH2290). Plant height ranged from 28.4 in (MTFH2289) to 39.6 in (Yellowstone). The greatest stripe rust infection was 50.5% (Warhorse) and the rest of the lines had none to very slight infection. See table 2 for agronomic performance of all early genetic lines tested.

**Table 1.** Management Information

<b>Seeding date:</b>	9/24/2021	<b>Field Location:</b>	R5
<b>Julian date:</b>	267	<b>Harvest date:</b>	8/9/2022
<b>Seeding rate:</b>	Standard	<b>Julian date:</b>	221
<b>Previous crop:</b>	Peas	<b>Soil type:</b>	fine sandy loam
<b>Herbicide:</b>	Cleansweep, axial bold (5/10/2022)	<b>Tillage:</b>	conventional
<b>Insecticide:</b>		<b>Soil residual nutrient (NO<sub>3</sub>-, P, K lb/A):</b>	106-9-125
<b>Fungicide:</b>		<b>Nutrient fertilizer applied (N, P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O lb/A):</b>	85-0-0 (4/14/2022)
<b>Seed treatment:</b> CruiserMax Vibrance Cereal			
<b>Emergence:</b> 10/2			

**Table 2.** Agronomic Performance

Entry	Line/Cultivar	YLD <sup>1</sup> , bu/ac	PRO <sup>2</sup> %	TWT, lb/bu	HD	HT, in
24	MT2280	144.8	10.8	64.7	165	35.6
14	MT2270	142.0	11.1	64.5	161	33.0
8	MT2264	140.6	11.3	64.4	161	31.9
6	MT2262	140.6	11.2	64.6	158	30.5
16	MT2272	140.1	11.2	65.1	160	34.4
13	MT2269	138.7	11.6	65.0	162	34.3
15	MT2271	137.0	11.9	64.7	164	31.4
9	MT2265	136.7	11.6	64.9	162	33.8
27	MT2283	136.1	11.5	65.6	163	32.9
4	Flathead	135.9	11.3	63.8	159	35.3
12	MT2268	135.2	10.9	64.7	161	32.5
10	MT2266	134.7	11.0	64.9	161	34.3
30	MT2286	134.7	11.4	65.8	163	36.6
23	MT2279	132.6	11.9	64.5	158	29.0
18	MT2274	132.6	11.9	65.5	159	32.9
1	Yellowstone	132.4	11.4	62.9	164	39.6
17	MT2273	130.9	12.0	65.1	164	34.2
20	MT2276	129.8	11.0	64.9	164	32.6
7	MT2263	129.6	11.8	64.8	164	32.3
31	MT2287	128.9	12.1	64.2	162	36.1
5	MT2261	127.9	12.2	65.2	158	30.3
2	Warhorse	127.9	12.2	63.5	166	35.0
3	SY Monument	126.8	11.4	62.8	164	32.2
11	MT2267	126.3	12.4	64.8	162	33.9
29	MT2285	125.3	12.1	65.1	163	32.5
19	MT2275	124.8	11.6	64.7	161	31.9
28	MT2284	123.8	12.0	65.3	163	31.1
32	MT2288	123.3	11.8	63.5	164	32.5
26	MT2282	122.4	11.6	64.8	158	32.4
33	MTFH2289	120.2	11.2	63.4	166	28.4
25	MT2281	117.5	12.1	65.2	159	33.5
21	MT2277	116.4	12.2	65.1	159	32.9
35	MTFH2291	116.1	11.5	63.3	165	33.1
36	MTFH2292	111.9	10.8	64.0	166	30.1
22	MT2278	98.1	13.0	62.0	164	33.4
34	MTFH2290	81.3	11.5	62.6	168	29.9
	<b>Mean</b>	127.9	11.6	64.4	162.0	32.9
	<b>CV</b>	6.3	2.0	0.6	0.8	5.0
	<b>LSD</b>	20.0	0.6	0.9	3.3	4.1
	<b>PR &gt; F</b>	<0.0001	<0.0001	<0.0001	<0.0001	0.0008

YLD: yield, PRO: protein, TWT: test weight, HD: heading date Julian, HT: plant height

1 adjusted to 13% moisture

2 adjusted to 12% moisture