

**Project Title:** 2021 Spring Wheat Off-Station Trial

**Objective:** To evaluate the performance of selected spring wheat varieties in a production environment in northwestern Montana

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**Summary:**

The spring wheat off-station trial was planted on May 7, 2021 under rain-fed conditions (Table 1). A total of 7.8 inches of rainfall was received during the growing period. The trial was placed in a rainfed field near Big Fork, MT.

The average yield was 56.2 bu/A, with a high of 64.2 bu/A for MT 1939 to a low of 47.0 bu/A for Duclair. The average test weight was 52.4 lb/bu. The highest test weight was 55.7 lb/bu for MT 1904 and the lowest test weight was 49.3 lb/bu for MT 1927. The average protein content was 16.8%. The highest protein content was 17.8% from MT 1951 and the lowest was 16.2% from MT 1938. Lodging was visible on all but seven varieties, ranging from slight to severe with the highest lodging percentage at 97% for Corbin (Table 2).

**Table 1.** Management Information

<b>Seeding date:</b>	5/7/2021	<b>Field Location:</b>	48.11901451098784, -114.09846901219666
<b>Julian date:</b>	127	<b>Harvest date:</b>	9/3/2021
<b>Previous crop:</b>	Alfalfa	<b>Julian date:</b>	246
		<b>Tillage:</b>	Conventional
			1) Spring 2021, 14-14-20-6S
<b>Herbicide:</b>	Opensky at 16 fl oz/A	<b>Nutrient fertilizer applied (N, P2O5, K2O lb/A):</b>	2) 112-0-14-5S + N- Edge + Agrigrow
			3) UAN at 88.5 lb/A

**Table 2.** Agronomic performance of spring wheat

Variety	HT (in)	LOD (%)	YLD (bu/A)	PRO (%)	TWT (lb/bu)	TKW (g)	FN (sec)
MT 1939	25.5	42	<b>64.2</b>	16.5	51.0	<b>28.2</b>	249.6
MT 1934	<b>27.1</b>	15	<b>62.8</b>	16.5	51.3	25.2	302.1
MT 1716	<b>27.6</b>	<b>80</b>	<b>62.5</b>	16.4	53.6	<b>29.3</b>	231.1
VIDA	<b>28.8</b>	20	<b>62.5</b>	16.3	52.5	26.4	302.8
REEDER	<b>28.4</b>	30	<b>60.5</b>	17.0	53.3	26.3	354.9
MT 1931	<b>29.8</b>	<b>62</b>	<b>60.1</b>	16.5	51.5	<b>29.8</b>	176.1
SY INGMAR	25.7	0	<b>59.8</b>	16.4	53.3	23.2	287.4
MT 1938	25.7	15	<b>58.8</b>	16.2	51.7	26.3	258.8
BRENNAN	25.3	0	57.8	16.3	54.0	23.5	331.9
MT 1927	<b>28.9</b>	23	57.1	<b>17.3</b>	49.3	26.7	263.2
MT 1951	<b>29.0</b>	0	56.8	<b>17.8</b>	50.7	27.1	318.3
CHOTEAU	26.7	37	56.5	16.8	52.5	<b>27.5</b>	320.5
EGAN	26.8	3	56.1	<b>17.7</b>	52.6	25.7	<b>395.3</b>
MT 1904	<b>27.8</b>	7	55.8	16.7	<b>55.7</b>	25.1	365.0
MT 1809	27.1	48	55.4	16.9	51.6	25.5	313.8
MT 1855	<b>27.8</b>	0	55.1	16.4	52.8	<b>28.3</b>	321.2
LANNING	26.7	0	54.1	16.7	51.1	<b>27.3</b>	311.3
NS PRESSER CLP	<b>29.9</b>	52	53.4	17.1	51.9	<b>27.2</b>	<b>400.1</b>
SY SOREN	25.9	0	53.1	<b>17.2</b>	51.3	21.3	346.4
CORBIN	25.5	<b>97</b>	52.8	16.7	52.9	<b>28.2</b>	330.1
DAGMAR	<b>29.4</b>	0	52.4	16.8	52.2	26.5	<b>396.2</b>
WB GUNNISON	26.1	5	51.7	16.4	53.6	<b>30.3</b>	<b>390.9</b>
WB9879CLP	26.5	5	50.7	16.9	53.2	26.1	376.5
ALUM	<b>28.2</b>	7	48.4	<b>17.3</b>	<b>54.5</b>	<b>29.7</b>	<b>405.1</b>
DUCLAIR	25.8	23	47.0	17.1	51.6	26.3	366.4
<b>Mean</b>	<b>27.3</b>	<b>22.8</b>	<b>56.2</b>	<b>16.8</b>	<b>52.4</b>	<b>26.7</b>	<b>324.6</b>
<b>C.V.</b>	<b>5.3</b>	<b>105.9</b>	<b>5.9</b>	<b>2.2</b>	<b>1.9</b>	<b>7.0</b>	<b>4.9</b>
<b>LSD(0.05)</b>	<b>2.4</b>	<b>39.7</b>	<b>5.5</b>	<b>0.6</b>	<b>1.6</b>	<b>3.1</b>	<b>26.2</b>
<b>PR&gt;F</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>

**Bolding** denotes equal value to highest or earliest value within a column based on LSD(0.05)

HT= height, LOD=lodging, YLD= yield, PRO= protein, TWT= test weight, TKW= thousand kernel weight