

**Project Title:** 2019 Winter Cereal Forage Trial

**Objective:** To evaluate the performance of selected forage wheat and triticale in northwestern Montana

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**Summary:**

This trial was planted on a silt loam ground with known subsurface moisture recharge. Other management information is provided in Table 1.

The average forage yield (on a dry matter basis) was 7.7 t/A. The T1310-230 triticale had the highest yield at 9.1 t/A and PI 197732 wheat had the lowest, at 5.9 t/A (Table 2). On average, the forage yields contained 36% dry matter, and ranged from 28% to 40%.

Grain yields averaged 109.2 bu/A and ranged from only 73.2 bu/A (Willow Creek wheat) to 129.5 bu/A (T1310-230 triticale). Grain protein averaged 9.5% and ranged from 8.8% for Ray wheat to 10.5% PI 197732 wheat.

Plant heights spanned from 40 inches for Ray wheat, to 72.2 inches for FX 1001 triticale. There was a significant lodging difference between the varieties, ranging from no lodging observed in Ray wheat, to a high of 80% lodged in Willow Creek wheat.

**Table 1. Management information**

Seeding date:	10/4/2018	Field Location:	Y7
Julian date:	277	Harvest date:	7/8 and 7/12/2019 (forage) 8/29/2019 (grain)
Seeding rate:	16 plants/ft <sup>2</sup>	Julian date:	241
Previous crop:	Canola	Soil type:	Creston Silt loam
Herbicide:	Huskie: 5/9/19	Tillage:	Conventional
Insecticide:	None	Soil residual nutrient (NO <sub>3</sub> <sup>-</sup> , P, K lb/A):	52-28-180
Fungicide:	None	Nutrient fertilizer applied ( N, P <sub>2</sub> O <sub>5</sub> , K <sub>2</sub> O lb/A):	82-0-0

**Table 2.** Agronomic performance of wheat and triticale forage entries.

<b>Cultivar/ line</b>	<b>Cereal Type</b>	<b>Forage Yield t/A</b>	<b>Grain Yield bu/A</b>	<b>Height in.</b>	<b>Lodging %</b>	<b>Protein %</b>	<b>TWT lb/bu</b>
T1310-230	Triticale	9.1	129.5	70.6	27.5	9.3	56.7
WCF 1078	Triticale	8.3	112.0	69.2	16.3	8.9	56.6
T1310-218	Triticale	8.1	123.2	68.7	23.7	9.0	56.5
T14	Triticale	7.9	102.0	68.0	7.5	9.9	58.0
FX 1001 (WCF 1060)	Triticale	7.7	109.2	72.2	46.3	9.5	57.4
Trical 102	Triticale	7.5	106.9	63.8	21.3	10.0	53.1
T1310-221	Triticale	7.2	107.8	67.8	26.2	9.0	56.4
Willow Creek	Wheat	7.0	73.2	62.4	80.0	10.3	62.0
Ray (MTF 1432)	Wheat	6.2	116.0	40.0	0.0	8.8	60.6
PI 197732	Wheat	5.9	100.8	51.1	10.0	10.5	59.8
<b>Mean</b>		<b>7.7</b>	<b>109.2</b>	<b>63.4</b>	<b>25.9</b>	<b>9.5</b>	<b>57.4</b>
<b>LSD</b>		<b>1.6</b>	<b>19.8</b>	<b>10.8</b>	<b>NS**</b>	<b>0.47</b>	<b>0.52</b>
<b>CV%</b>		<b>12.3</b>	<b>10.9</b>	<b>3.8</b>	<b>57.3</b>	<b>2.8</b>	<b>0.53</b>
<b>Pr&gt;F</b>		<b>0.01</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>

TWT= test weight

Height = height at forage harvest

\*Yield on a dry matter basis

\*\*LSD not significant when CV% &gt; 15