

**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:**

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.

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). On average, the forage yields contained 36% dry matter, and ranged from 28% to 40%.

Grain protein averaged 9.5% and ranged from 8.8% for Ray wheat to 10.5% PI 197732 wheat.

Plant heights spanned a wide range of values, 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.

This trial was planted on a silt loam ground with known subsurface moisture recharge.

Seeding date:	10/4/2018	Field Location:	NWARC (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 nutrient residual (NO <sub>3</sub> <sup>-1</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 varieties in the Winter Cereal Forage Trial

Variety	Cereal Type	Forage Yield (t/A)*	Grain Yield (bu/A)	Height (inches)	Lodging (%)	Protein (%)	TWT (lb/bu)
<b>T1310-230</b>	Triticale	9.1	129.5	70.6	27.5	9.3	56.7
<b>WCF 1078</b>	Triticale	8.3	112.0	69.2	16.3	8.9	56.6
<b>T1310-218</b>	Triticale	8.1	123.2	68.7	23.7	9.0	56.5
<b>T14</b>	Triticale	7.9	102.0	68.0	7.5	9.9	58.0
<b>FX 1001 (WCF 1060)</b>	Triticale	7.7	109.2	72.2	46.3	9.5	57.4
<b>Trical 102</b>	Triticale	7.5	106.9	63.8	21.3	10.0	53.1
<b>T1310-221</b>	Triticale	7.2	107.8	67.8	26.2	9.0	56.4
<b>Willow Creek</b>	Wheat	7.0	73.2	62.4	80.0	10.3	62.0
<b>Ray (MTF 1432)</b>	Wheat	6.2	116.0	40.0	0.0	8.8	60.6
<b>PI 197732</b>	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% > 15