

**Project title:** 2023 Intrastate Winter Wheat

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



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**Summary:**

There were 49 planted 3 October 2022, and harvested on 14 August 2023, cultural practices can be found in Table 1. The 49 varieties were rainfed, receiving 10.5 inches between planting and harvest.

Average yield was 142.5 Bu/A with LCS Eclipse AX having the highest (170.2 Bu/A) and WB4727 being the lowest (109.3 Bu/A). Average protein was 11% with Warhorse having the highest (12.43%) and LCS Steel AX the lowest (9.63%). Average number of days to heading was 155.2 days with MTS1908 having the longest time (159 days) and CP7909 the shortest period (150 days). Average period to physiological maturity was 201 days, with ACC Wildfire and LCS Steel AX having the longest time to physiological maturity (205 days) and Fortify SF and SY Wolverine having the shortest, (198 days).

**Table 1.** management information

Seeding date:	10/3/2022 (276)	Field Location:	Y1
Seeding rate:	N/A	Harvest date:	8/14/2023 (226)
Previous crop:	Peas	Soil type:	Creston Silt Loam
Herbicide:	Axial Bold, Cleansweep	Tillage:	Conventional
Insecticide:	N/A	Soil residual nutrient (N, P205, K20 Lb./A)	103.5, 7, 123
Fungicide:	N/A	Nutrient fertilizer applied (N, P, K Lb./A)	143, 50, 90

**Table 2.** Agronomic performance

VARIETY/LINE	DTH	DTM	H (cm)	PRO (%)	TWT (lbs./Bu)	YLD (Bu/A)
LCS Eclipse AX	157	202	85.9	10	59.4	<b>170.2</b>
Northern	156	204	88.5	11.6	62.3	164.6
MT2019	157	202	78.6	11.1	62.4	162.4
SY Clearstone 2CL	158	202	91	10.7	62	161.1
AP18 AX	151	200	80.3	11.6	63.3	161
Ramsay	157	201	83.3	10.8	63.2	160.6
Keldin	156	201	86.7	10.4	63.3	160.3
Judee	156	200	87.5	11.8	<b>63.8</b>	157.8
Loma	157	203	84.4	11.5	62.5	157.8
MTS2068	158	202	86.4	11.1	62.8	156.9
Flathead	152	199	88	11.5	63.7	154.5
MTFH19132	156	201	83.2	10.2	60.6	153.6
AAC Coldfront	156	203	82.5	10.4	61.8	152.5
MTCL2010	156	203	83.1	11.7	62.3	151.8
MTV2164	156	201	84.7	10.9	62.1	151.8
MTCS20151	157	203	81.2	11.6	62.3	150.9
MTCS20158	157	202	86.7	12	62.4	150.9
StandClear CLP	157	200	89.1	11.6	63.2	150.8
Yellowstone	158	201	86.1	10.9	62.4	150.8
CPX7266AX	152	200	84.7	11.8	62	149.8
FourOsix	157	202	78.9	11.5	62.5	149.8
MTFH20170	156	203	83.2	11.9	62.6	148.5
MTAX21187	153	200	85	10.5	62.3	146.7
MT WarCat	158	204	74	11.1	62.5	146.2
LCS Helix AX	152	200	84.2	10.5	63.6	145.6
MTCL19151	156	201	85	11.4	62.6	145.4
Bobcat	157	198	82.4	11.3	63	144.9
CP7909	<b>150</b>	199	78.1	10.1	63.1	144.5
MTCS20156	158	200	79.9	11.8	62.8	144.2
AP Bigfoot	152	199	84.8	11.1	62.7	143.5
MTS1908	159	204	81.3	11.3	62.9	142.9
MTS2197	156	201	78.6	11.2	63.1	142.3
MS Sundown	151	199	83.5	11	61.9	142.1
MS Maverick	153	199	84.5	11.6	63.2	141
Balance	156	203	<b>93.3</b>	11.2	62.2	134.2
Kivari AX	152	200	89	9.7	61.5	132

**Table 2.** continued

AAC Wildfire	159	205	83.9	11.1	61.6	130.5
Milestone	156	201	78.5	10.2	58.9	129.4
CP7017AX	151	199	89	10.4	62.4	128.5
Amplify SF	152	198	84.8	10.2	61.9	125.2
Warhorse	157	202	84	<b>12.4</b>	62.1	124.6
WB4483	157	199	85	10.7	61.5	118.2
SY Wolverine	151	198	88.8	10.6	61.1	117.8
WB4422	155	203	83.8	10.7	61.6	116
Brawl CL Plus	151	199	83.1	11.7	62.9	115.1
AP Solid	156	200	84.9	10.7	60.8	115
LCS Steel AX	156	205	84.3	9.6	59.7	114.4
Fortify SF	152	<b>198</b>	83.8	10.2	60.9	113.9
WB4727	156	202	85.7	10.1	58.4	109.3
<b>Mean</b>	155	201	88	11	62.1	142.5
<b>LSD</b>	1	3	6.2	0.5	1	20.8
<b>CV</b>	0.34	0.74	49.98	2.86	0.94	10.35
<b>P-Value</b>	0	0	0.98	0	0	0

**Underlined**=top performer or earliest with in the column. DTH=days to heading, DTM=days to maturity, H= plant height, PRO=protein, YLD=yield