Project Title:

2025 Winter Cereal Forage Variety Trial

Objective:

To test forage yield, grain yield, and quality of thirteen winter cereal forages

Personnel:

Marilyn Dalen, Emily McGarvey, McKenna Volkman, Jessica Torrion, and Patrick Carr

Summary:

Thirteen cereal forage entries were tested in a randomized complete block trial replicated four times in 2025. These forages were primarily wheat entries as well as rye and triticale (for detailed management information, see Table 1).

Forage yield average was 4.91 tons/A; the highest performer was Rye KWS Aviator2 at 6.92 tons/A.

Plant height ranged from 33.1 in. (Ray) to 59.3 in. (KWS Aviator). Grain protein averaged 11.9%; the highest value was Willow Creek wheat at 13.5%. The highest value for test weight was MT Cash at 65.1 lb/bu (Table 2). MTF24435 had the highest grain yield (157.8 bu/A). Willow Creek had the lowest (79.2 bu/A)**.**

Table 1. Management Information

Seeding date:	10/10/2024 (284 Julian)	**Field Location:**	X5
Seeding rate:	20 plants/ft^2	**Harvest dates:**	Forage— 6/19/2025 (170 Julian) Grain — 8/6/2025 (218 Julian)
Previous crop:	Canola	**Soil type:**	Creston Silt Loam
Herbicide:	Axial Bold Cleansweep Beyond	**Tillage:**	Conventional
Insecticide:	N/A	**Soil residual nutrient: (N, P, K lb/A):**	107.5-16-278 (Fall 2024)
Fungicide:	N/A	**Nutrient fertilizer applied: (N, P, K, S lb/A):**	10-50-80-10 (Fall 2024)

Table 2. Agronomic Data, NWARC, Kalispell, MT

Entries	Crop	PLNT HT (in)	HD Date (Julian)	Forage Moisture (%)	Forage Yield (tons/A)	Crude PRO (%)	ADF (%)	NDF (%)	DDM (%)	RFV (%)
Willow Creek	Wheat	48.3	167.0	71.8	4.35	10.4	42.9	72.1	55.5	72.1
Ray	Wheat	33.1	161.5	72.2	4.31	**12.4**	**37.1***	**65.1**	**60.0***	**85.0**
MT Cash	Wheat	41.4	160.0	71.0	5.60	10.7	40.3	**13.0**	57.5	78.0
MTF22136	Wheat	37.2	160.0	67.4	4.46	10.7	**37.4**	**64.8**	**59.8**	**85.7***
MTF23410	Wheat	41.3	163.0	72.9	4.78	10.1	41.3	69.4	56.8	75.9
MTF24401	Wheat	39.2	163.0	72.8	4.64	**11.9**	39.8	68.9	57.9	78.6
MTF24403	Wheat	48.1	167.0	**75.4***	4.48	10.7	41.8	70.8	56.4	74.3
MTF24426	Wheat	41.4	163.3	73.8	4.81	**13.3***	**38.1**	**66.0**	**59.2**	**83.8**
MTF24435	Wheat	33.2	162.5	73.8	4.00	**12.3**	**37.6**	65.9	**59.6**	**84.4**
KWS Aviator[2]	Rye	**59.3***	**147.0***	66.4	**6.92***	9.2	**39.3**	**66.4**	58.3	**81.4**
KWS Progas[2]	Rye	53.5	**147.0***	65.1	5.25	10.9	**37.9**	**64.6***	**59.4**	**85.2**
FX1001	Triticale	50.0	160.0	70.3	5.31	**11.9**	39.8	70.0	58.0	76.4
Mean		43.8	160.0	71.1	4.91	11.2	39.4	67.7	58.2	80.1
CV%		5.9	0.9	1.4	14.3	12.1	3.9	2.8	2.1	5.1
LSD (0.05)[1]		3.7	2.0	1.4	1.01	1.9	2.2	2.7	1.7	5.8
P-value		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

HT- Height; HD- Heading; PRO- Protein; ADF – Acid Detergent Fiber; NDF – Neutral Detergent Fiber; DDM- Digestible Dry Matter; RFV – Relative Feed Value

Bold* = top performer within a column; **Bold** = equivalent to top performer within a column

[1] Fisher's protected LSD not significant when P-Value > 0.05

Table 2. Agronomic Data, NWARC, Kalispell, MT (continued)

Entries	Crop	Grain Moisture (%)	Grain Yield (bu/A)	Grain PRO (%)	Grain TWT (lbs/bu)	LOD %, if present	Rust %, if present
Willow Creek	Wheat	6.6	79.2	**13.5***	63.8	91	15
Ray	Wheat	**7.2**	140.3	11.3	63.5	0	25
MT Cash	Wheat	6.9	128.1	**13.0**	**65.1***	3	0
MTF22136	Wheat	**7.0**	141.8	12.5	63.1	19	0
MTF23410	Wheat	**7.0**	133.5	11.3	64.1	65	0
MTF24401	Wheat	**7.0**	135.3	10.3	62.3	78	63
MTF24403	Wheat	6.9	86.5	12.2	62.6	89	26
MTF24426	Wheat	**7.0**	119.6	10.6	62.0	88	100
MTF24435	Wheat	**7.3***	**157.8***	11.1	63.1	8	0
KWS Aviator2	Rye	-	-	-	-	0	0
KWS Progas2	Rye	-	-	-	-	0	0
FX1001	Triticale	6.3	102.7	**13.0**	60.3	79	0
Mean		6.9	122.5	11.9	63.0		
CV%		3.2	8.6	4.9	1.0		
LSD (0.05)1		0.32	15.4	0.84	0.88		
P-value		<0.01	<0.01	<0.01	<0.01		

PRO- Protein; TWT- Test weight; LOD- Lodging

Bold* = top performer within a column; **Bold** = equivalent to top performer within a column

[1] Fisher's protected LSD not significant when P-Value > 0.05

[2] Grain not harvested for these lines at the request of industry supplier

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