



2023 South Dakota Winter Wheat Forage Trial Results

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Location: Brookings, SD (44.320884°, -96.771016°)

Soil Type: Barnes clay loams, 0-2% slopes

Previous crop: oats

Tillage: no-till

Row spacing: 8"

Seeding Rate: 1.2 million PLS/acre

Fertilizer:

- Starter: 90 lbs/acre 30-10-10
- Other: 50-0-0 fall applied as UAN, 80-60-40-20 spring applied as liquid broadcast

Herbicide:

- Burndown: 36 oz/acre Tomahawk + 27 oz/acre 2,4-D
- Post: 2 pt/acre Brox 2EC

Fungicide: none

Date seeded: 9/20/2022

Date harvested: 6/15/2023

Location: Pierre, SD (Dakota Lakes Research Farm)

(44.292795°, -99.990924°)

Soil Type: Millboro silt loam, 0-3% slopes

Previous crop: flax

Tillage: no-till

Row spacing: 8"

Seeding Rate: 1.2 million PLS/acre

Fertilizer:

- Starter: 10 gal/acre, 10-34-0
- Other: 49 GPA 26. 1-0-0-2.6S steambar applied on 5/03/2023

Herbicide:

- Burndown: 26 oz/acre Glyphosate + 12 oz/acre 2,4-D + 0.1 oz/acre Tribenuron on 9/06/2022
- Post: 1 pt/acre Bromoxynil

Fungicide: none

Date seeded: 9/22/2022

Date harvested: 6/15/2023

Notes:

- Wheat plots were harvested at milk to early-dough stage with a Swift LTD forage plot harvester.
- Plot sub-samples were weighed and dried for 72 hours at 140°F.
- Dried hay samples were sent to Dairyland Labs (Arcadia, WI) for NIR analysis.



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2023 South Dakota Winter Wheat Forage Trial Results Brookings

Table 1. 2023 winter wheat forage trial results (average of 3 replications) at Brookings, SD.

Variety Information			Yield & Nutritional Performance							
Variety	Origin†- Year	Height (inches)	DM ¹ (T/A)	CP ² (%DM)	ADF ³ (%DM)	NDF ⁴ (%DM)	NE L ⁵ (Mcal/ cwt)	NE G ⁶ (Mcal/ cwt)	NE M ⁷ (Mcal/ cwt)	RFV ⁸
AP Baldy ^{awnless}	AP-23	27	2.7	13.4	26.8	49.0	66.5	40.7	67.5	129.0
LCS Chrome	LCS-15	27	2.4	14.0	28.8	51.4	65.9	40.4	67.2	120.2
MTF 1435 ^{awnless}	MT-18	33	2.6	13.0	30.8	57.3	63.0	36.6	63.0	105.7
Oahe	SD-16	28	3.0	12.6	26.8	50.8	65.8	39.6	66.2	124.6
SD Andes	SD-20	26	2.8	14.1	28.6	52.9	65.6	40.0	66.8	117.3
SD Midland	SD-21	26	2.9	13.1	28.5	52.9	64.7	38.6	65.2	117.6
SY Monument	AP-15	26	3.0	12.8	27.2	50.0	66.4	40.5	67.2	126.2
T173 ^{awnless}	MT-09	34	2.7	11.7	31.4	56.0	62.2	35.1	61.2	107.0
Winner	SD-19	27	2.8	13.4	28.3	51.2	65.9	40.1	66.8	121.7
Trial Average	-	28	2.8	13.1	28.7	52.5	65.1	39.0	65.6	118.5
LSD (0.05)§	-	-	0.6	1.3	1.8	3.5	2.5	3.3	3.6	10.0

† AP - AgriPro; ALS - LCS - Limagrain Cereal Seeds; MT - Montana; SD - South Dakota; and year release.

§ Value required (≥LSD) to determine if varieties are significantly different from one another.

¹ Tons per acre of dry matter (DM).

² Crude protein as a percentage of DM.

³ Acid detergent fiber as a % of dry matter. Generally samples with lower ADF are considered higher quality.

⁴ Neutral detergent fiber as a % of dry matter. Generally samples with lower NDF are considered higher quality.

⁵ Net energy, lactation - an estimate of energy value for dairy cattle diets. (Mcal/cwt, DM basis)

⁶ Net energy, gain - an estimate of energy value to support beef cattle growth. (Mcal/cwt, DM basis)

⁷ Net energy, maintenance - an estimate of energy value for meeting maintenance needs of beef cattle. (Mcal/cwt, DM basis).

⁸ Relative feed value - a value representing how well a forage will be consumed and digested.



2023 South Dakota Winter Wheat Forage Trial Results Pierre

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Table 2. 2023 winter wheat forage trial results (average of 3 replications) at Pierre, SD.

Variety Information			Yield & Nutritional Performance							
Variety	Origin†- Year	Height (inches)	DM ¹ (T/A)	CP ² (%DM)	ADF ³ (%DM)	NDF ⁴ (%DM)	NE L ⁵ (Mcal/ cwt)	NE G ⁶ (Mcal/ cwt)	NE M ⁷ (Mcal/ cwt)	RFV ⁸
AP Baldy ^{awnless}	AP-23	21	1.8	12.5	26.6	47.1	67.8	41.8	68.7	134.9
LCS Chrome	LCS-15	20	1.9	14.3	26.7	47.3	67.5	42.2	69.2	134.1
MTF 1435 ^{awnless}	MT-18	26	1.9	10.6	31.1	51.5	63.6	36.3	62.6	117.6
Oahe	SD-16	25	2.4	11.9	26.8	44.8	67.9	41.7	68.6	141.7
SD Andes	SD-20	19	1.7	12.6	28.2	47.6	65.9	39.6	66.4	131.6
SD Midland	SD-21	20	1.8	12.8	28.4	48.3	67.0	41.0	67.8	129.0
SY Monument	AP-15	22	2.6	11.0	27.6	47.2	66.8	40.0	66.7	133.3
T173 ^{awnless}	MT-09	26	1.8	11.6	31.6	51.3	63.8	36.8	63.2	116.7
Winner	SD-19	23	2.0	12.4	27.6	46.9	64.3	37.8	64.3	133.8
Trial Average	-	23	2.0	12.1	28.5	48.1	66.0	39.6	66.3	129.8
LSD (0.05)§	-	-	0.7	2.2	3.7	4.9	5.4	6.6	7.3	18.0

† AP - AgriPro; ALS - LCS - Limagrain Cereal Seeds; MT - Montana; SD - South Dakota; and year release..

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⁸ Relative feed value - a value representing how well a forage will be consumed and digested.