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South Dakota Agricultural Experiment Station Research at SDSU

JULY 2020

SOUTH DAKOTA STATE UNIVERSITY®
AGRONOMY, HORTICULTURE, & PLANT SCIENCE DEPARTMENT

2020 South Dakota Winter Wheat Variety Trial Results Hayes

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Cooperator:	Terry Hand
Location:	44.373556°, -101.045861°
Soil Type:	Promise clay, 0-3% slopes
Previous crop:	winter wheat fallow
Tillage:	no-till
Row spacing:	8"
Seeding Rate:	1.2 million PLS/acre
Fertilizer:	
-Starter:	10 gal/acre 10-34-0
-Other:	41 gal/acre 28-0-0 applied on 4/8/20
Herbicide:	
-Burndown:	not reported
-Post:	16 oz/acre Bronate + 16 oz/acre GoldSky
Fungicide:	none
Date seeded:	9/17/2019
Date harvested:	7/21/2020
Notes:	Excellent growing conditions.

S-0002-01

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Table 1. 2020 winter wheat variety performance trial results (average of 4 replications) at Hayes, SD.
Entries are sorted by overall 3-year yield. Varieties yielding in the top 1/3 of each trial are shaded light blue.

Variety	Height (in)	Lodging* (1-5)	Test Wt (lbs)	Protein %	2018 (bu/a)	2019 (bu/a)	2020 (bu/a)	2-year (bu/a)	3-year (bu/a)
Winner	39	1.3	60.8	13.4	44.2	85.7	114.7	100.2	81.5
Keldin	39	1.0	61.9	13.6	42.6	81.1	113.0	97.1	78.9
Overland	41	2.0	61.8	13.5	41.8	88.5	100.9	94.7	77.1
Draper	36	1.0	60.3	13.4	39.9	81.4	106.0	93.7	75.8
WB4462	40	1.0	61.9	13.3	39.0	80.4	107.8	94.1	75.7
WB-Grainfield	35	1.0	60.9	13.1	41.4	77.2	107.1	92.1	75.2
SY Sunrise	34	1.0	61.6	12.5	39.2	81.9	104.5	93.2	75.2
Oahe	40	2.7	62.9	13.6	40.5	81.9	102.4	92.2	74.9
Redfield	36	1.0	62.0	13.8	41.9	80.1	102.1	91.1	74.7
Ideal	39	2.8	61.7	13.4	39.6	79.5	103.5	91.5	74.2
Langin	35	1.3	60.6	12.3	39.0	75.2	107.3	91.2	73.8
Expedition	38	1.0	61.4	13.2	41.7	81.0	97.7	89.3	73.5
Thompson	42	1.0	61.4	13.5	38.2	83.6	97.6	90.6	73.1
Cowboy	38	2.0	59.8	13.0	44.2	76.6	97.0	86.8	72.6
SY Monument	37	1.0	59.3	13.2	38.4	74.8	101.2	88.0	71.5
SY 517 CL	35	1.0	61.9	13.7	39.9	73.2	97.3	85.2	70.1
WB4595	39	1.0	62.9	12.4	-	72.9	106.9	89.9	-
SY Wolverine	36	1.0	61.5	13.2	-	72.1	103.0	87.6	-
NW13493	38	2.5	60.5	13.6	-	73.1	99.5	86.3	-
CP7017CAX	35	1.0	62.3	12.2	-	-	110.1	-	-
Crescent AX	39	1.7	62.3	12.4	-	-	109.0	-	-
CP7909	36	2.3	62.1	12.4	-	-	107.5	-	-
AP 18AX	37	1.0	61.0	12.8	-	-	106.8	-	-
LCS Helix AX	36	1.0	62.8	12.3	-	-	106.7	-	-
CP7010	36	1.0	63.1	12.6	-	-	103.8	-	-
Flathead	39	1.0	59.8	13.8	-	-	103.5	-	-
LCS Diesel	36	1.5	61.4	13.7	-	-	103.0	-	-
CP7050CAX	36	1.0	63.6	13.7	-	-	101.5	-	-
NE14696	42	2.8	60.7	13.8	-	-	100.3	-	-
Guardian	38	1.0	61.7	13.5	-	-	100.1	-	-
WB4309	40	2.0	61.3	13.5	-	-	97.8	-	-
14NORD-1	42	1.0	62.6	14.6	-	-	91.4	-	-
Northern	38	1.0	59.8	14.3	-	-	89.5	-	-
MTF 1435	47	1.0	59.9	14.1	-	-	74.6	-	-
Trial Average#	38.5	1.4	61.5	13.3	39.5	78.9	102.5	91.3	74.9
LSD (0.05)†	1.6	0.9	1.1	0.4	7.9	7.8	7.25	-	-
C.V. %‡	2.5	-	1.3	1.9	14.2	7.0	5.1	-	-

* Lodging score: 1, perfectly standing; to 5, completely flat.
# Trial averages may include values from experimental lines that are not reported.
† Value required (≥LSD) to determine if varieties are significantly different from one another.
‡ C.V. is a measure of variability or experimental error, 15% or less is considered acceptable.