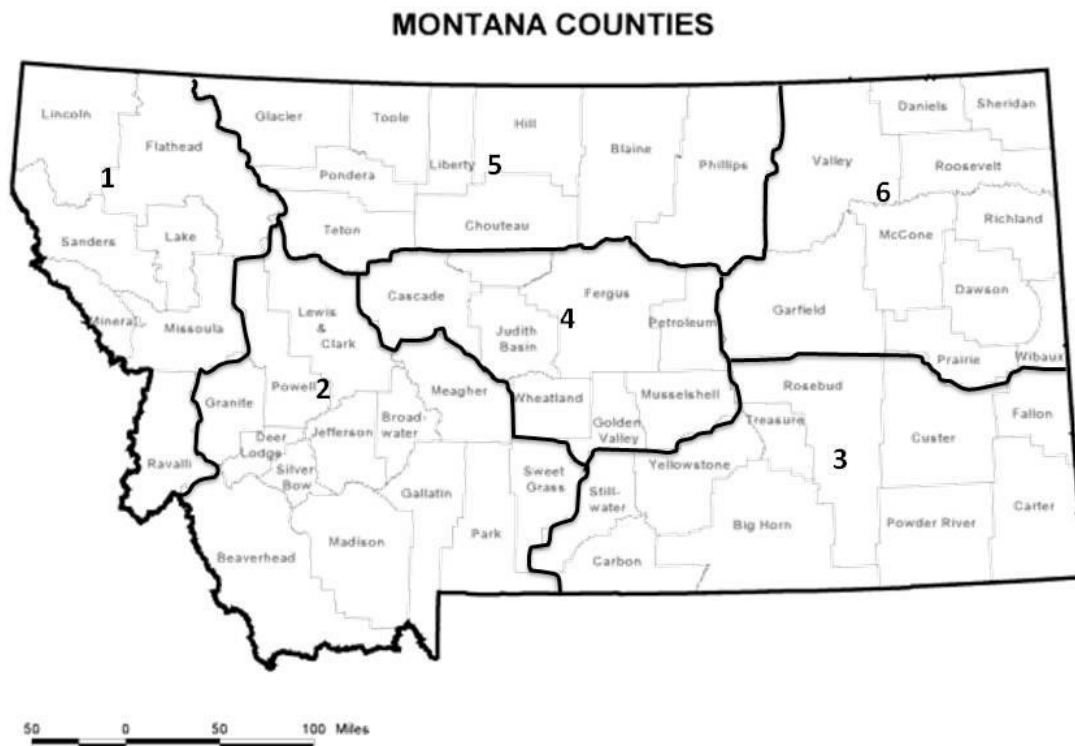


2021 Montana Spring Wheat Variety Performance Evaluations



SPRING WHEAT VARIETY PERFORMANCE SUMMARY IN MONTANA

H. Heo, N. Blake, C. Beiermann, J. Pavelka, K.D. Kephart, J. Eberly, E. Magnuson, J. Vetch, E. Simmons, P.F. Lamb, E. Haney, K. McNamara, C. Chen, F. Crutcher, C. Kowatch, D. Nash, and J. Cook

INTRODUCTION

The agronomic characteristics of spring wheat varieties evaluated by the Montana Agricultural Experiment Station are compared in this publication with other varieties commonly grown in the state. The objective of this summary is to help farmers select the varieties which will perform best in their area. Data from 2018-2021 is provided for each of the testing sites. Data for varieties grown in previous years can be found on this website:

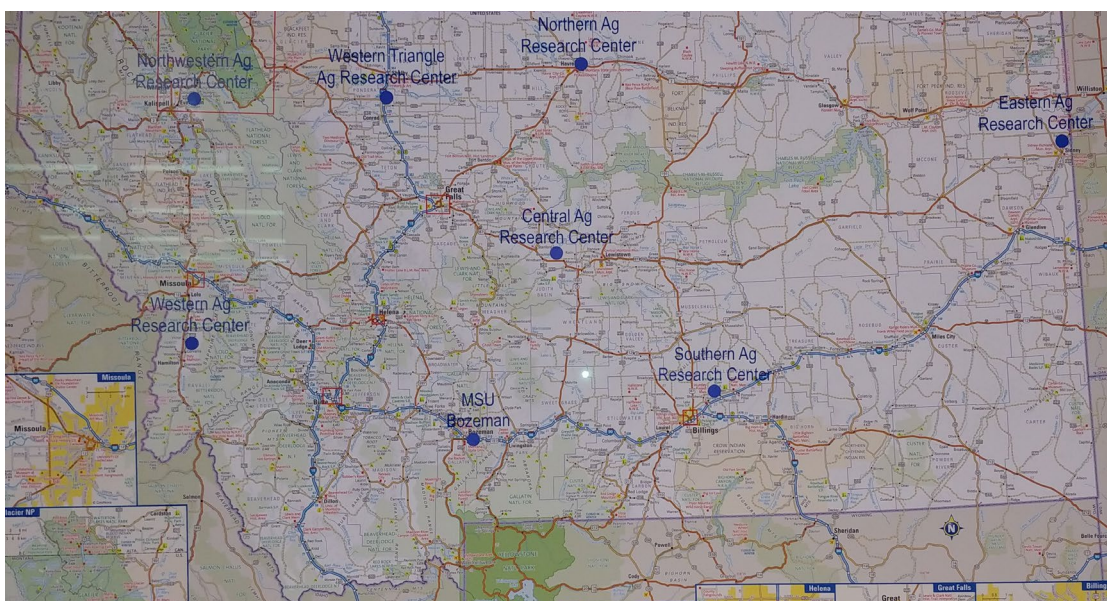
<http://plantsciences.montana.edu/crops/index.html>.

The map on the cover shows the districts in the state for purposes of reference for specific areas of adaptation. A brief description is given which may include a variety's particular advantages or disadvantages. The information was extracted from data collected and analyzed from the Advanced Spring Wheat nursery. These reports are prepared by research personnel of the Montana Agricultural Experiment Station.

VARIETY TESTING PROCEDURES

Locations

Typically, the Advanced Spring Wheat nursery is planted at 8 Montana sites; including Bozeman (dryland), Kalispell (NWARC : dryland), Havre (NARC : dryland), Sidney (EARC : dryland and irrigated), Huntley (SARC : dryland), Moccasin (CARC : dryland) and Conrad (WTARC : dryland).



Experimental Design and Data Collection

Varieties currently recommended, widely grown, or recently released are evaluated for agronomic performance in the Advanced Spring Wheat nursery. Also evaluated in these nurseries are experimental breeding lines tested against the check varieties

Agronomic data collected throughout the growing season includes heading date, plant height, lodging, disease and insect reactions. Experimental plots are trimmed, measured and harvested with small plot combines. The grain is weighed for yield and test weight.

One trait important to wheat growers is resistance to the wheat stem sawfly. The major mode of resistance is a solid versus hollow stemmed variety. To evaluate this trait we cut several stems of each variety and score them on a scale of 1=hollow, 2=2/5 solid, 3=3/5 solid, 4=4/5 solid and 5=solid. The cuts are made in the center of each internode, so there are 5 scores per stem. The five scores are added up to get a total number ranging from 5=very hollow up to 25=very solid.

Entries are submitted to the Cereal Quality Lab at MSU, Bozeman for protein, milling, baking and Asian noodle quality evaluation as needed.

Data is analyzed and summarized for each location and overall comparisons are made to determine which varieties and/or experimental lines look promising for Montana producers. When sufficient data is collected and analyzed, promising experimental lines are submitted to the MAES wheat variety release committee.

**2018-2021 OVERALL AVERAGE OF GRAIN YIELD, TEST WEIGHT AND PROTEIN CONTENT FOR THE
ADVANCED SPRING WHEAT NURSERY GROWN UNDER RAIN-FED CONDITION
(Bozeman, Huntley, Moccasin, Conrad, Havre, and Sidney-dry)**

ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2018- 2021	2019- 2021	2020- 2021	2021	2018- 2021	2019- 2021	2020- 2021	2021	2018- 2021	2019- 2021	2020- 2021	2021
DAGMAR	63.4	58.6	57.2	43.9	61.2	61.2	61.0	59.7	15.2	15.0	15.7	16.0
VIDA	63.0	57.8	56.9	41.9	60.2	60.2	59.7	58.5	14.3	14.2	14.9	15.0
NS PRESSER CLP	62.9	57.2	56.5	42.4	59.0	59.3	58.5	57.7	14.6	14.5	15.4	15.4
SY ROCKFORD	61.5	56.8	55.2	41.5	59.6	59.3	59.1	57.2	14.6	14.7	15.3	15.7
WB 9719	61.3	56.5	53.2	39.3	63.0	63.2	62.2	60.8	14.4	14.2	15.0	15.3
MT SIDNEY	61.3	54.7	54.5	41.8	61.1	60.7	60.5	58.5	14.7	14.8	15.3	15.7
LANNING	59.4	54.5	52.5	40.7	60.3	60.2	59.7	57.8	15.3	15.1	15.9	15.8
DUCLAIR	59.0	52.8	51.6	37.2	59.8	59.5	59.0	57.2	14.9	14.9	15.3	15.8
SY LONGMIRE	58.9	53.2	50.8	38.2	61.2	61.3	60.6	59.0	15.0	14.9	15.6	15.9
WB 9879 CLP	58.8	55.0	51.6	39.9	60.4	60.2	60.1	58.4	15.2	15.1	15.8	15.9
REEDER	57.9	52.6	51.4	39.5	60.8	60.9	60.6	59.1	15.0	14.9	15.5	15.6
WB 9590	57.8	54.1	50.0	38.7	61.1	61.2	60.8	59.2	15.3	15.2	15.8	16.1
CHOTEAU	57.7	53.0	51.2	38.4	60.3	60.0	59.8	58.1	15.0	14.9	15.5	15.7
WB GUNNISON	57.3	52.5	49.7	38.3	61.2	61.2	60.7	59.3	14.2	14.1	14.9	15.2
SY INGMAR	57.1	53.4	51.7	38.4	61.0	60.9	60.4	58.4	15.4	15.3	15.9	16.5
SY 611 CL2	56.8	51.5	50.3	38.0	61.7	61.8	60.9	59.2	15.0	14.9	15.5	15.8
CORBIN	56.1	51.8	48.8	38.0	61.0	60.9	60.7	59.3	14.9	14.8	15.3	15.7
SY McCLOUD	56.1	52.3	50.7	39.0	62.1	62.0	61.7	60.0	15.6	15.4	15.7	16.0
MCNEAL	55.5	50.1	49.3	35.0	59.7	59.7	59.2	57.9	14.9	14.6	15.7	15.8
EGAN	54.8	50.2	48.9	37.0	59.1	58.9	58.5	57.0	16.4	16.0	16.9	17.1
MT 1809		60.1	58.1	42.0		59.7	59.4	57.7		14.8	15.6	15.7
MT 1855		58.0	54.4	41.6		60.0	59.5	58.1		14.9	15.6	15.9
MT 1939			58.3	46.6			60.3	58.3			14.9	15.2
MT 1938			57.1	42.6			59.9	58.2			15.3	15.7
MT 1934			56.0	44.0			60.0	58.4			15.1	15.6
MT 1931			55.9	44.7			60.0	58.3			15.3	15.4
MT 1904			55.5	41.9			61.4	60.1			15.2	15.8
MT 1927			53.9	40.8			58.1	55.9			15.9	16.3
MT 1951			52.9	38.9			57.1	55.2			16.5	16.8
LCS BUSTER			52.8	38.1			57.6	56.4			14.1	14.5
MS RANCHERO			52.2	40.6			60.1	58.6			14.8	15.2
WB 9516				42.1				60.2				15.0
LCS ASCENT				41.9				59.5				15.5
BZ917-277				41.5				59.0				15.7
BZ917-252				40.4				55.2				16.1
509-2				40.3				58.3				15.8
LNR 1713				39.5				58.6				15.4
AP GUNSMOKE CL2				37.9				57.9				16.6
MS COBRA				37.5				59.2				16.0
AP SMITH				37.0				57.7				16.2
AAC CONCORD				36.8				58.3				16.1
THATCHER				30.5				57.2				16.1
MEAN	58.8	54.4	53.2	40.2	60.7	60.6	59.9	58.4	15.0	14.9	15.5	15.7
C.V.	5.0	5.5	5.7	7.8	0.7	0.7	0.9	1.6	1.8	2.0	2.2	3.2
F-VALUE(LINE)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	3.4	3.8	3.8	3.5	0.5	0.5	0.7	1.1	0.3	0.4	0.4	0.6

1) **bold** : highest or earliest value within a column, bold : equal value to highest or earliest value within a column based LSD(0.05)

2) Kalispell's 2018 and 2020 data was excluded, 3) Huntley's 2019 data was excluded due to hail damage

4) Conrad's 2020 data was excluded

**2018-2021 OVERALL AVERAGE OF GRAIN YIELD, TEST WEIGHT AND PROTEIN CONTENT FOR THE
ADVANCED SPRING WHEAT NURSERY GROWN UNDER IRRI / HIGH RAINFALL CONDITION**

(Kalispell and Sidney-irri)

ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2018- 2021	2019- 2021	2020- 2021	2021	2018- 2021	2019- 2021	2020- 2021	2021	2018- 2021	2019- 2021	2020- 2021	2021
SY 611 CL2	<u>92.4</u>	82.0	83.9	73.9	63.8	62.9	63.8	61.1	14.9	13.8	14.6	12.4
WB 9719	91.4	77.7	83.0	84.5	<u>65.6</u>	<u>64.3</u>	<u>65.9</u>	<u>63.4</u>	14.6	13.8	14.2	12.2
VIDA	90.5	80.9	85.8	85.2	62.6	61.5	63.3	62.4	14.6	13.5	14.1	12.3
SY ROCKFORD	89.6	80.5	82.1	85.8	62.0	60.3	62.7	60.3	14.5	14.0	14.2	12.8
MT SIDNEY	89.6	82.8	82.9	77.8	63.6	61.9	64.0	61.1	14.9	14.0	14.3	12.8
SY LONGMIRE	89.6	80.6	84.5	87.8	63.2	62.5	63.6	61.1	15.0	13.8	14.4	12.7
DAGMAR	89.5	77.7	84.7	77.0	62.9	61.6	63.5	61.4	15.9	14.2	15.5	13.4
SY INGMAR	88.8	76.8	81.8	75.9	63.7	62.5	63.9	62.0	15.2	14.5	14.9	13.0
REEDER	88.6	79.0	83.0	93.3	62.9	62.1	63.2	61.5	15.3	14.0	14.9	13.1
LANNING	87.2	78.3	80.2	78.2	61.7	60.9	61.6	59.9	15.8	14.6	15.7	12.9
WB 9590	86.0	78.4	78.9	76.3	62.8	61.3	63.2	62.1	15.5	14.5	15.0	12.7
NS PRESSER CLP	83.8	<u>84.3</u>	83.0	84.6	61.7	61.1	62.7	61.4	14.4	13.4	13.9	11.9
SY McCLOUD	82.9	75.5	80.0	81.1	64.3	63.0	64.8	62.2	15.7	14.4	15.3	13.1
DUCLAIR	81.7	75.8	75.1	77.2	61.8	60.6	61.9	60.7	14.9	13.7	14.7	12.7
MCNEAL	81.0	75.0	73.3	83.2	61.7	61.0	61.7	60.1	15.6	14.3	15.5	12.9
CHOTEAU	79.5	69.8	75.6	82.2	62.0	60.8	62.5	61.1	15.1	13.9	15.0	12.5
WB 9879 CLP	79.0	70.3	75.1	80.4	62.2	60.9	63.0	61.9	15.4	14.3	15.1	12.7
WB GUNNISON	78.1	74.1	77.6	81.0	63.3	62.3	63.9	62.3	14.4	13.3	13.9	12.2
CORBIN	77.4	74.0	74.1	77.4	63.1	61.8	63.7	61.6	15.3	13.8	15.0	12.7
EGAN	77.1	68.9	70.4	72.5	61.2	60.4	61.0	59.9	16.2	15.4	16.4	13.5
MT 1809		82.9	<u>86.9</u>	85.0		61.0	63.0	61.1		13.9	14.6	13.0
MT 1855		82.6	82.5	85.2		61.7	62.8	62.5		13.7	14.4	12.4
MT 1934			84.9	84.4			62.3	60.9			15.1	12.0
MS RANCHERO			84.2	81.0			62.9	59.4			14.0	12.7
MT 1931			83.8	85.0			62.2	60.5			15.5	12.7
LCS BUSTER			82.8	71.1			61.2	59.7			12.9	12.1
MT 1939			82.3	72.8			62.6	60.3			14.5	12.3
MT 1938			81.9	86.4			62.8	60.8			15.1	12.4
MT 1927			80.8	92.0			61.6	59.0			14.8	13.0
MT 1951			78.2	81.6			59.6	59.3			16.5	14.7
MT 1904			75.7	80.0			64.0	62.7			13.8	12.1
WB 9516				93.9				63.2				13.2
BZ917-277				90.9				60.9				12.7
LCS ASCENT				86.9				62.1				12.2
AAC CONCORD				82.7				61.0				13.7
AP SMITH				82.6				61.5				13.8
BZ917-252				80.8				59.8				12.6
MS COBRA				80.4				60.2				13.6
LNR 1713				77.6				61.1				12.2
AP GUNSMOKE CL2				76.8				60.8				12.4
509-2				75.7				61.3				11.5
THATCHER				73.0				60.5				12.9
MEAN	85.2	77.6	80.6	81.4	62.8	61.6	62.8	61.1	15.1	14.0	14.8	12.7
C.V.	5.6	5.1	7.4	10.3	1.0	0.8	1.2	1.9	2.5	2.6	3.4	6.1
F-VALUE(LINE)	<0.001	<0.05	ns	ns	<0.001	<0.001	<0.001	ns	<0.001	<0.01	<0.001	ns
LSD(0.05)	6.7	8.2	-	-	0.9	1.0	1.6	-	0.5	0.8	1.0	-

1) bold : highest or earliest value within a column, bold : equal value to highest or earliest value within a column based LSD(0.05)

2) Kalispell's 2018 and 2020 data was excluded, 3) Huntley's 2019 data was excluded due to hail damage

4) Conrad's 2020 data was excluded

**2018-2021 OVERALL AVERAGE OF GRAIN YIELD, TEST WEIGHT AND PROTEIN CONTENT
FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA (COMBINED)**
(Kalispell, Bozeman, Huntley, Moccasin, Conrad, Havre, Sidney-dry, and Sidney-irri)

ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2018- 2021	2019- 2021	2020- 2021	2021	2018- 2021	2019- 2021	2020- 2021	2021	2018- 2021	2019- 2021	2020- 2021	2021
DAGMAR	67.1	64.0	61.8	52.2	61.5	61.3	61.4	60.1	15.3	14.8	15.7	15.4
VIDA	66.9	64.4	61.8	52.7	60.5	60.5	60.3	59.5	14.3	14.0	14.8	14.3
NS PRESSER CLP	65.9	64.9	60.9	53.0	59.4	59.8	59.2	58.6	14.6	14.2	15.1	14.5
WB 9719	65.6	62.5	58.2	50.6	63.4	63.5	62.9	61.4	14.4	14.1	14.9	14.5
SY ROCKFORD	65.5	63.6	59.7	52.6	60.0	59.6	59.7	58.0	14.6	14.5	15.2	15.0
MT SIDNEY	65.3	62.7	59.2	50.8	61.5	61.0	61.1	59.1	14.8	14.6	15.2	15.0
LANNING	63.4	61.3	57.1	50.1	60.5	60.4	60.0	58.3	15.4	15.0	15.8	15.1
SY LONGMIRE	63.2	61.0	56.5	50.6	61.5	61.6	61.1	59.5	15.0	14.6	15.4	15.1
REEDER	62.3	60.2	56.7	53.0	61.1	61.3	61.0	59.7	15.0	14.6	15.4	14.9
DUCLAIR	62.3	59.4	55.5	47.2	60.1	59.8	59.5	58.1	14.9	14.6	15.2	15.0
SY 611 CL2	61.9	60.2	55.9	47.0	62.0	62.1	61.4	59.7	15.0	14.6	15.4	14.9
WB 9590	61.8	61.0	54.8	48.1	61.4	61.2	61.2	59.9	15.3	15.0	15.6	15.3
WB 9879 CLP	61.7	59.4	55.5	50.0	60.7	60.4	60.6	59.3	15.2	14.8	15.7	15.1
SY INGMAR	61.6	60.1	56.7	47.7	61.4	61.4	61.0	59.3	15.4	15.1	15.8	15.6
CHOTEAU	60.8	57.8	55.2	49.3	60.5	60.2	60.3	58.8	15.0	14.6	15.4	14.9
WB GUNNISON	60.3	58.7	54.4	48.9	61.5	61.5	61.2	60.0	14.2	13.9	14.7	14.4
SY McCLOUD	59.9	58.9	55.6	49.5	62.4	62.3	62.2	60.6	15.6	15.1	15.7	15.3
CORBIN	59.2	58.1	53.0	47.8	61.3	61.2	61.2	59.9	15.0	14.5	15.3	15.0
MCNEAL	59.1	57.2	53.3	47.0	60.0	60.0	59.6	58.5	15.0	14.5	15.6	15.1
EGAN	58.0	55.5	52.5	45.9	59.4	59.3	58.9	57.7	16.3	15.8	16.8	16.2
MT 1809		66.6	62.9	52.7		60.1	60.0	58.5		14.5	15.4	15.0
MT 1855		65.0	59.1	52.5		60.4	60.1	59.2		14.6	15.4	15.0
MT 1939			62.3	53.1			60.7	58.8			14.9	14.5
MT 1938			61.2	53.5			60.4	58.8			15.3	14.9
MT 1934			60.8	54.1			60.4	59.0			15.1	14.7
MT 1931			60.6	54.7			60.4	58.8			15.3	14.7
MT 1904			58.9	51.4			61.8	60.7			15.0	14.8
MT 1927			58.4	53.6			58.7	56.6			15.7	15.4
LCS BUSTER			57.8	46.4			58.2	57.2			13.9	13.9
MS RANCHERO			57.6	50.7			60.5	58.8			14.7	14.6
MT 1951			57.1	49.6			57.5	56.2			16.5	16.3
WB 9516				55.0				60.9				14.5
BZ917-277				53.9				59.5				15.0
LCS ASCENT				53.1				60.1				14.7
BZ917-252				50.5				56.4				15.2
509-2				49.2				59.0				14.7
LNR 1713				49.0				59.2				14.6
AP SMITH				48.4				58.7				15.6
AAC CONCORD				48.3				59.0				15.5
MS COBRA				48.2				59.4				15.4
AP GUNSMOKE CL2				47.6				58.6				15.6
THATCHER				41.1				58.0				15.3
MEAN	62.6	61.0	57.8	50.5	61.0	60.9	60.4	59.1	15.0	14.6	15.3	15.0
C.V.	5.0	5.6	5.2	9.8	0.7	0.7	0.9	1.7	1.8	2.1	2.3	3.8
F-VALUE(LINE)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	3.3	3.6	3.4	4.8	0.5	0.5	0.6	1.0	0.3	0.3	0.4	0.6

1) **bold** : highest or earliest value within a column, **bold** : equal value to highest or earliest value within a column based LSD(0.05)

2) Kalispell's 2018 and 2020 data was excluded, 3) Huntley's 2019 data was excluded due to hail damage

4) Conrad's 2020 data was excluded

**2018-2021 OVERALL AVERAGE OF HEADING DATE, PLANT HEIGHT AND STEM SOLIDNESS
FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA**

ID	HEADING DATE (JULIAN)				PLANT HEIGHT (INCHES)				STEM SOLIDNESS (5-25) BOZEMAN ONLY			
	2018- 2021	2019- 2021	2020- 2021	2021	2018- 2021	2019- 2021	2020- 2021	2021	2018- 2021	2019- 2021	2020- 2021	2021
DAGMAR	<u>173.7</u>	<u>175.3</u>	<u>171.4</u>	173.4	30.5	29.3	28.9	27.4	18.5	18.9	21.0	19.7
DUCLAIR	<u>173.8</u>	<u>175.2</u>	<u>171.5</u>	173.5	29.8	29.2	28.2	27.3	20.0	20.1	20.9	20.0
CORBIN	<u>174.1</u>	<u>175.4</u>	171.8	173.1	29.9	28.8	27.7	27.1	13.1	13.8	13.9	12.9
MT SIDNEY	<u>174.1</u>	<u>175.7</u>	172.6	175.5	30.6	29.6	29.0	30.1	9.8	10.5	10.7	11.3
SY McCLOUD	<u>174.2</u>	<u>175.6</u>	172.2	173.9	29.4	28.6	27.6	26.6	9.2	9.5	9.0	7.7
LANNING	174.3	<u>175.4</u>	<u>171.2</u>	173.0	29.0	27.9	26.5	26.2	7.6	8.2	8.0	7.3
WB 9590	174.4	175.9	172.3	173.3	26.3	25.1	24.3	23.7	9.2	9.1	9.0	8.1
SY 611 CL2	175.1	176.5	173.1	174.1	27.7	26.7	26.0	25.2	9.1	9.6	9.4	7.9
SY LONGMIRE	175.7	176.9	173.7	175.0	28.9	28.4	27.4	26.5	19.5	20.1	20.3	21.1
WB GUNNISON	175.9	177.0	173.5	174.7	28.7	27.8	26.4	25.3	12.5	13.0	12.7	11.8
SY INGMAR	176.1	177.4	174.2	175.2	28.9	28.0	27.2	25.7	9.4	9.4	9.2	7.7
CHOTEAU	176.1	177.3	173.9	174.9	29.5	28.7	27.6	27.2	<u>22.0</u>	<u>22.2</u>	<u>22.4</u>	20.7
REEDER	176.3	177.9	173.8	174.9	<u>31.4</u>	30.0	28.7	27.7	7.9	8.3	8.0	7.8
VIDA	176.9	178.0	174.4	175.5	30.3	29.5	28.5	27.4	13.0	13.9	14.5	14.5
WB 9879 CLP	176.9	178.0	174.6	175.2	29.5	28.6	27.7	26.4	<u>23.0</u>	<u>23.7</u>	<u>24.1</u>	<u>23.4</u>
EGAN	177.2	178.2	175.1	175.8	30.1	29.1	28.1	27.3	8.2	8.3	8.2	7.8
MCNEAL	177.7	178.9	175.5	176.3	31.1	30.3	<u>29.3</u>	28.0	8.3	8.5	8.2	8.3
WB 9719	177.8	179.1	175.7	176.2	28.5	27.5	26.4	25.5	7.6	7.8	7.0	6.4
SY ROCKFORD	177.8	179.3	175.8	177.0	30.0	28.9	27.9	26.6	8.9	9.5	8.7	8.1
NS PRESSER CLP	179.4	179.8	176.6	176.7	<u>31.9</u>	31.0	<u>29.7</u>	28.4	8.1	8.5	8.0	7.2
MT 1809		177.3	173.4	174.7		29.2	27.8	26.6		13.1	13.9	13.1
MT 1855		179.1	176.1	176.5		<u>31.8</u>	<u>30.2</u>	28.5		17.5	17.9	17.9
MT 1931			<u>170.9</u>	<u>172.7</u>			27.5	27.0			8.8	7.1
MS RANCHERO			<u>171.0</u>	173.2			28.4	27.3			9.1	8.2
MT 1934			<u>171.4</u>	173.4			28.4	27.8			17.7	15.6
MT 1938			172.1	173.1			28.1	27.5			20.4	19.4
MT 1939			172.9	174.3			27.4	27.6			21.4	19.7
MT 1951			173.1	174.4			<u>29.8</u>	28.7			8.4	8.0
MT 1904			175.1	175.8			28.2	27.4			<u>23.5</u>	<u>22.3</u>
MT 1927			175.5	177.5			28.7	27.8			19.0	18.1
LCS BUSTER			178.4	177.9			27.4	25.8			18.6	20.0
509-2				173.0				25.7				10.7
LNR 1713				173.6				27.6				7.5
LCS ASCENT				173.6				28.0				7.2
AP GUNSMOKE CL2				174.0				25.7				7.2
MS COBRA				174.3				27.5				6.7
AAC CONCORD				175.1				28.4				<u>24.1</u>
WB 9516				175.4				25.9				8.6
AP SMITH				176.0				24.8				8.6
BZ917-252				176.1				25.8				11.1
BZ917-277				176.1				26.9				12.7
THATCHER				177.7				<u>32.2</u>				6.0
MEAN	<u>175.9</u>	<u>177.2</u>	<u>173.6</u>	<u>174.3</u>	<u>29.6</u>	<u>28.8</u>	<u>27.9</u>	<u>27.1</u>	<u>12.2</u>	<u>12.9</u>	<u>13.9</u>	<u>13.3</u>
C.V.	0.3	0.3	0.4	0.7	2.2	2.5	3.3	5.8	9.6	9.9	7.8	8.6
F-VALUE(LINE)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	<u>0.6</u>	<u>0.6</u>	<u>0.7</u>	<u>1.3</u>	<u>0.7</u>	<u>0.7</u>	<u>1.0</u>	<u>1.5</u>	<u>1.7</u>	<u>2.1</u>	<u>2.2</u>	<u>1.8</u>

1)bold : highest or earliest value within a column, bold : equal value to highest or earliest value within a column based LSD(0.05)

2) Kalispell's 2018 and 2020 data was excluded, 3) Huntley: 2019 data was excluded due to hail damage, no heading data for 2021

4) Conrad: 2020 data was excluded, no heading data for 2021

**2018-2021 ADVANCED SPRING WHEAT NURSERY, KALISPELL (HIGH RAINFALL) : YIELD, TEST
WEIGHT AND PROTEIN
DISTRIC 1**

ID	YIELD		TEST WEIGHT		PROTEIN	
	(BU/AC)		(LB/BU)		(%)	
	2019, 2021 ¹⁾	2021	2019, 2021	2021	2019, 2021	2021
NS PRESSER CLP	<u>83.4</u>	91.7	60.1	59.1	12.4	10.6
MT SIDNEY	80.4	87.9	60.2	59.0	13.3	11.9
MT 1855	79.1	96.5	60.8	<u>62.6</u>	12.7	10.8
MT 1809	76.4	102.0	59.6	<u>59.3</u>	12.7	11.8
SY ROCKFORD	73.6	103.0	58.6	58.1	13.5	11.6
WB 9590	73.2	88.4	59.8	61.7	13.7	10.8
SY 611 CL2	72.9	83.8	62.1	59.5	12.8	10.5
VIDA	72.0	95.2	60.2	61.2	12.4	11.2
DUCLAIR	72.0	91.8	59.7	60.2	12.7	10.9
SY LONGMIRE	71.4	107.1	61.6	59.4	12.9	11.2
CORBIN	71.1	98.7	60.5	59.9	12.3	10.2
REEDER	71.0	113.7	61.4	60.4	12.9	11.4
MCNEAL	70.9	105.3	60.4	59.3	12.9	10.1
LANNING	70.7	95.0	60.4	59.8	13.4	10.5
WB GUNNISON	70.6	96.0	61.2	60.7	12.4	10.6
WB 9719	67.7	97.3	<u>63.1</u>	61.1	13.1	10.5
SY INGMAR	67.1	88.4	61.6	61.1	13.9	11.3
DAGMAR	67.0	80.0	60.2	59.4	12.7	12.0
SY McCLOUD	66.9	95.3	61.8	59.8	13.3	11.2
THATCHER	65.9	91.5	59.6	59.2	13.3	10.8
WB 9879 CLP	63.7	96.9	59.6	61.1	13.1	10.3
CHOTEAU	61.7	100.9	59.6	59.7	12.8	10.5
EGAN	61.5	84.5	59.7	59.4	<u>14.5</u>	10.3
MT 1927		119.1		57.2		10.9
WB 9516		114.5		60.7		12.6
BZ917-277		110.8		58.1		11.3
AAC CONCORD		110.2		59.3		11.4
MT 1938		105.5		59.0		10.0
MT 1951		105.2		60.2		12.5
LCS ASCENT		103.1		59.8		11.0
LANNING/MT1319		101.0		59.8		10.3
MS COBRA		100.0		56.8		12.5
MS RANCHERO		99.1		56.6		11.4
AP SMITH		98.2		60.4		<u>12.7</u>
MT 1904		98.2		60.8		10.9
BZ917-252		96.6		60.6		9.9
MT 1934		95.6		59.7		9.7
LNR 1713		90.8		58.9		10.7
AP GUNSMOKE CL2		89.6		59.2		10.4
MT 1542/MT 1338		86.8		59.3		10.4
LCS BUSTER		84.5		59.3		10.7
MT 1939		79.4		58.9		10.4
509-2		77.9		59.6		10.0
MEAN	70.9	97.5	60.5	59.6	13.0	11.0
C.V.	8.0	6.7	0.7	0.7	4.1	4.6
PROBABILITY (LINE)	ns	<0.001	<0.001	<0.001	<0.05	<0.001
LSD(0.05)	-	11.3	0.8	0.8	1.1	0.9

1) not planted in 2018, 2020

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2018-2021 ADVANCED SPRING WHEAT NURSERY,BOZEMAN (DRY):YIELD,TEST WEIGHT AND PROTEIN

DISTRIC 2

ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2018-2021	2019-2021	2020-2021	2021	2018-2021	2019-2021	2020-2021	2021	2018-2021	2019-2021	2020-2021	2021
VIDA	<u>92.8</u>	<u>84.5</u>	<u>80.9</u>	60.8	59.9	59.4	59.4	59.6	14.4	14.5	14.4	14.1
WB 9719	<u>91.1</u>	82.9	77.2	59.0	<u>64.1</u>	<u>63.7</u>	<u>63.5</u>	<u>62.9</u>	14.2	14.3	14.3	14.6
SY ROCKFORD	<u>90.5</u>	<u>85.9</u>	<u>81.4</u>	58.3	59.6	59.1	59.3	58.2	14.3	14.5	14.6	14.8
DAGMAR	<u>88.9</u>	83.7	<u>81.0</u>	<u>62.7</u>	61.3	60.9	61.3	60.8	15.4	15.3	15.4	15.8
MT SIDNEY	<u>88.0</u>	81.1	76.8	<u>64.3</u>	60.9	60.4	60.6	59.4	14.7	14.6	14.5	14.7
NS PRESSER CLP	<u>87.9</u>	82.3	<u>79.0</u>	58.7	58.9	58.4	58.3	58.6	14.9	15.0	15.1	15.3
WB 9590	<u>87.2</u>	80.3	74.1	53.6	60.9	60.4	60.7	59.7	15.2	15.2	15.2	15.3
DUCLAIR	<u>87.1</u>	78.9	71.4	52.8	60.1	59.5	59.6	58.5	14.9	15.1	14.3	14.7
LANNING	85.1	80.8	76.5	58.3	60.9	60.3	60.4	59.2	15.5	15.5	15.3	15.6
REEDER	83.6	76.6	71.4	56.0	61.3	61.1	61.3	60.9	15.1	15.1	15.0	14.8
SY INGMAR	83.1	79.0	73.7	54.5	61.4	61.0	61.1	59.8	15.3	15.3	15.3	15.6
WB 9879 CLP	82.4	77.4	71.4	56.3	60.3	59.9	60.4	59.8	15.1	15.2	15.1	15.0
SY LONGMIRE	81.9	73.6	66.8	52.9	61.6	61.2	61.0	60.0	14.9	14.9	14.8	15.2
SY McCLOUD	81.8	78.3	74.7	58.0	62.4	62.0	<u>62.5</u>	61.9	15.2	15.0	14.6	14.2
CHOTEAU	80.7	74.3	70.1	55.0	60.5	59.9	60.6	59.4	14.9	14.8	14.5	14.6
WB GUNNISON	80.1	70.8	67.5	51.8	61.7	61.5	61.6	60.7	14.0	14.1	14.0	14.5
CORBIN	80.0	74.4	70.1	50.4	61.2	60.7	61.1	60.4	14.7	14.6	14.3	14.2
SY 611 CL2	79.3	73.1	69.9	53.7	61.8	61.5	61.5	61.3	14.9	14.9	14.8	14.7
EGAN	77.6	73.3	69.1	54.0	59.9	59.4	59.4	58.8	<u>16.8</u>	<u>16.5</u>	<u>16.3</u>	<u>16.4</u>
MCNEAL	72.7	69.1	66.2	49.9	60.0	59.6	59.6	58.5	15.5	15.2	14.9	15.0
MT 1855		<u>90.8</u>	<u>87.8</u>	61.1		60.4	60.4	60.2		14.5	14.4	14.3
MT 1809		<u>86.9</u>	<u>83.7</u>	61.3		58.8	58.8	58.4		15.4	15.4	15.4
MT 1939			<u>82.6</u>	<u>65.8</u>			61.4	60.4			14.4	14.4
MT 1931			<u>81.9</u>	61.3			60.8	59.5			15.1	15.1
MS RANCHERO			<u>81.7</u>	60.1			60.2	59.1			14.3	14.9
LCS BUSTER			<u>81.1</u>	57.4			57.4	56.7			12.8	12.6
MT 1934			<u>80.0</u>	<u>62.9</u>			60.1	59.4			15.0	15.8
MT 1938			<u>79.9</u>	61.3			60.3	59.0			14.8	15.1
MT 1904			78.5	58.1			61.3	61.2			14.8	15.2
MT 1951			77.2	55.5			58.7	57.3			<u>16.1</u>	16.2
MT 1927			74.9	57.2			59.0	57.9			15.0	15.2
WB 9516				59.5				61.4				13.9
LNR 1713				58.3				59.3				14.5
BZ917-277				57.9				60.2				15.2
LCS ASCENT				57.9				59.8				15.1
BZ917-252				56.2				55.7				14.7
509-2				56.1				59.6				14.7
AP SMITH				54.8				58.7				15.7
MS COBRA				54.4				59.9				15.6
AP GUNSMOKE CL2				53.2				58.1				15.8
AAC CONCORD				51.5				58.4				15.7
THATCHER				43.2				57.8				15.6
MEAN	<u>84.1</u>	<u>79.0</u>	<u>76.1</u>	<u>57.1</u>	<u>60.9</u>	<u>60.4</u>	<u>60.3</u>	<u>59.6</u>	<u>15.0</u>	<u>15.0</u>	<u>14.8</u>	<u>15.0</u>
C.V.	5.4	5.2	5.9	3.5	0.9	1.0	1.1	1 rep	3.0	2.9	2.5	1 rep
PROBABILITY (LINE)	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	1 rep	<0.001	<0.001	<0.001	1 rep
LSD(0.05)	<u>6.5</u>	<u>6.7</u>	<u>9.1</u>	<u>3.5</u>	<u>0.8</u>	<u>1.0</u>	<u>1.3</u>	<u>1 rep</u>	<u>0.6</u>	<u>0.7</u>	<u>0.8</u>	<u>1 rep</u>

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2018-2021 ADVANCED SPRING WHEAT NURSERY, HUNTLEY (DRY) : YIELD, TEST WEIGHT AND PROTEIN

DISTRICT 3

ID	YIELD			TEST WEIGHT			PROTEIN		
	(BU/AC)			(LB/BU)			(%)		
	2018, 2020, 2021 ¹⁾	2020- 2021	2021	2018, 2020, 2021 ¹⁾	2020- 2021	2021	2018, 2020, 2021 ¹⁾	2020- 2021	2021
NS PRESSER CLP	<u>75.8</u>	72.7	38.2	57.7	57.4	56.8	15.9	16.4	17.0
MT SIDNEY	74.8	70.0	40.4	61.6	60.5	58.5	15.5	15.9	16.7
SY ROCKFORD	73.6	68.9	40.8	60.0	59.0	56.6	15.6	16.0	17.0
DUCLAIR	73.1	69.8	47.1	59.9	58.8	55.8	15.6	16.2	17.1
VIDA	72.0	70.5	42.8	60.2	59.5	57.2	15.3	15.8	16.7
SY LONGMIRE	70.8	67.5	43.6	60.7	60.0	57.0	15.9	16.3	17.5
DAGMAR	70.1	68.6	44.1	60.6	60.2	58.3	16.4	16.8	17.6
CHOTEAU	69.4	64.9	38.7	60.5	59.6	57.6	16.0	16.3	17.3
MCNEAL	68.1	64.0	34.7	59.8	59.5	57.4	16.7	17.2	18.3
LANNING	66.9	63.4	45.8	59.9	59.2	56.6	16.6	17.1	17.3
WB 9879 CLP	66.7	64.1	39.5	60.5	59.8	57.8	16.1	16.4	17.3
EGAN	65.7	62.9	36.3	59.2	58.6	56.1	18.0	18.4	19.5
SY INGMAR	65.4	64.1	40.3	60.2	59.2	55.4	16.5	17.0	18.5
WB 9719	64.6	66.9	38.7	61.9	61.2	57.5	15.3	15.8	17.0
SY 611 CL2	64.4	64.6	41.6	60.5	59.6	55.8	16.0	16.4	17.3
REEDER	64.0	61.9	41.5	60.1	60.2	58.0	16.0	16.3	17.0
CORBIN	63.2	60.5	36.0	61.2	60.6	58.5	15.8	16.1	17.1
SY McCLOUD	62.3	58.5	36.3	61.8	60.8	58.2	16.4	16.8	17.9
WB GUNNISON	61.8	60.8	37.9	60.7	60.1	57.1	15.3	15.7	17.3
WB 9590	60.4	56.6	35.3	60.2	59.5	56.9	16.3	16.7	18.2
MT 1939		<u>73.7</u>	<u>50.7</u>		60.2	57.7		15.6	16.3
MT 1927		69.9	42.5		58.3	55.6		16.6	17.5
MT 1809		69.2	41.9		58.8	56.0		16.4	17.4
MT 1904		68.6	40.8		61.2	59.7		15.8	17.2
MT 1938		68.5	43.9		59.3	56.9		16.5	17.0
MT 1931		66.9	48.9		59.0	56.4		16.4	16.6
MT 1855		66.1	39.2		60.1	58.4		16.1	17.0
MT 1934		65.5	40.3		59.4	57.2		16.4	17.2
MT 1951		64.6	37.2		57.6	54.8		17.9	18.7
MS Ranchero		59.8	36.0		59.5	57.2		15.9	16.9
LCS BUSTER		59.2	25.8		59.1	58.1		14.7	16.1
BZ917-277			41.2			59.7			17.3
WB 9516			40.3			59.8			16.3
BZ917-252			39.3			51.9			19.2
509-2			38.0			56.2			18.1
AP Gunsmoke CL2			37.9			56.2			18.9
AP Smith			36.8			55.5			17.7
LNR 1713			36.6			56.3			16.8
AAC Concord			36.6			58.6			17.7
LCS Ascent			36.5			59.5			16.9
MS Cobra			33.4			58.7			18.2
THATCHER			27.8			56.7			17.7
MEAN	67.7	65.6	39.7	60.4	59.5	57.3	16.1	16.4	17.3
C.V.	7.2	8.1	12.4	1.5	1.7	1.3	2.2	2.9	2.0
PROBABILITY (ENTRY)	<0.01	ns	<0.001	<0.01	ns	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	8.1	-	8.4	1.5	-	1.3	0.6	1.0	0.6

1) No harvest due to hail in 2019

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2018-2021 ADVANCED SPRING WHEAT NURSERY, MOCCASIN (DRY) : YIELD, TEST WEIGHT AND PROTEIN

DISTRIC 4

ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2018-2021	2019-2021	2020-2021	2021	2018-2021	2019-2021	2020-2021	2021	2018-2021	2019-2021	2020-2021	2021
SY ROCKFORD	<u>48.6</u>	45.6	37.8	27.8	59.8	59.1	58.8	55.0	13.3	14.4	15.3	17.3
LANNING	47.1	44.0	36.4	24.1	60.2	59.6	58.8	54.8	13.5	14.5	15.5	17.5
VIDA	46.9	43.5	38.5	24.0	59.7	59.1	59.0	55.6	13.0	14.0	15.1	17.2
WB GUNNISON	46.8	41.8	36.1	21.9	60.4	59.8	59.8	56.8	13.5	14.5	15.2	16.9
NS PRESSER CLP	46.1	42.5	38.0	26.4	58.5	58.0	58.1	54.8	13.3	14.5	15.6	17.5
WB 9590	45.8	41.8	34.3	23.6	60.6	59.9	59.7	56.1	13.8	14.7	15.7	18.2
DAGMAR	45.7	40.9	38.2	22.9	60.9	60.4	60.1	56.6	13.5	14.4	15.3	17.3
WB 9879 CLP	44.5	40.9	37.5	23.6	60.8	60.0	59.5	55.6	13.9	14.8	15.7	17.7
SY 611 CL2	44.1	38.8	34.3	22.1	61.9	61.3	60.7	57.5	13.7	14.4	15.4	17.3
SY McCLOUD	43.7	39.6	36.0	25.2	61.8	61.3	60.7	57.6	14.4	15.1	16.0	17.8
MCNEAL	43.6	39.5	36.4	25.8	60.0	59.3	59.3	56.7	13.3	14.3	15.2	17.1
MT SIDNEY	43.5	38.6	36.4	25.6	60.9	60.2	60.1	56.1	13.4	14.4	15.4	17.8
CORBIN	43.3	40.2	33.7	22.7	60.1	60.2	60.2	57.4	13.8	14.7	15.4	17.8
REEDER	42.8	38.1	35.3	22.5	60.7	60.2	60.0	56.7	13.6	14.5	15.4	17.7
WB 9719	42.6	37.9	34.6	22.8	62.8	62.3	62.2	59.0	13.1	13.8	14.9	16.8
SY LONGMIRE	42.5	39.1	34.3	23.4	61.2	60.6	60.2	56.8	13.9	14.8	16.0	18.1
SY INGMAR	42.4	39.2	32.4	22.5	60.7	59.7	59.4	55.1	14.5	15.3	16.5	18.9
CHOTEAU	42.3	39.1	33.5	21.9	59.8	59.3	58.7	54.8	14.0	14.8	15.7	18.1
DUCLAIR	41.9	38.9	34.6	22.1	59.6	59.0	58.5	54.6	13.4	14.3	15.2	17.4
EGAN	40.6	36.7	31.5	21.6	59.2	58.4	58.3	55.0	14.7	15.7	16.3	18.5
MT 1809		45.8	39.1	25.4		58.9	58.7	54.8		14.2	15.3	17.5
MT 1855		41.5	35.7	25.0		58.8	58.8	55.5		14.8	15.7	17.6
MT 1931			40.2	30.0			58.9	55.0			15.2	17.4
MT 1939			39.6	27.5			59.1	55.1			15.1	17.2
MT 1904			39.1	28.3			61.0	58.1			15.1	17.2
MT 1938			37.5	23.1			58.8	54.9			15.2	17.3
MT 1934			37.3	27.3			59.2	55.7			14.9	17.0
MS RANCHERO			36.6	25.1			59.3	56.3			14.8	16.9
MT 1951			35.9	22.5			56.3	52.8			16.0	18.2
MT 1927			35.8	22.2			57.1	52.5			15.6	18.3
LCS BUSTER			33.2	20.5			56.4	53.4			15.2	17.5
509-2				28.2				56.1				17.0
LCS ASCENT				27.9				58.3				16.7
WB 9516				26.9				58.9				16.8
MS COBRA				26.7				57.7				17.6
BZ917-277				24.2				58.2				17.3
AP SMITH				23.7				56.0				18.1
AP GUNSMOKE CL2				23.6				55.1				18.4
LNR 1713				23.4				55.6				17.2
BZ917-252				23.1				51.0				18.6
AAC CONCORD				23.1				55.7				18.0
THATCHER				18.9				54.4				17.9
MEAN	44.2	40.6	36.1	24.3	60.5	59.8	59.2	55.9	13.7	14.6	15.4	17.5
C.V.	7.2	8.2	6.1	13.2	1.1	1.1	1.1	1.0	2.7	2.2	2.0	2.3
PROBABILITY (ENTRY)	<0.05	ns	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	4.5	-	4.5	5.6	0.9	1.0	1.3	0.9	0.5	0.5	0.6	0.7

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2018-2021 ADVANCED SPRING WHEAT NURSERY, CONRAD (DRY) : YIELD, TEST WEIGHT AND PROTEIN

DISTRIC 5

ID	YIELD			TEST WEIGHT			PROTEIN		
	(BU/AC)			(LB/BU)			(%)		
	2018, 2019, 2021 ¹⁾	2019, 2021	2021	2018, 2019, 2021 ¹⁾	2019, 2021	2021	2018, 2019, 2021 ¹⁾	2019, 2021	2021
DAGMAR	67.6	58.5	50.2	60.9	61.8	60.8	14.8	14.7	14.5
WB 9719	61.9	54.2	44.2	63.1	64.7	64.1	13.7	13.3	12.7
NS PRESSER CLP	61.1	53.3	49.5	59.2	60.8	60.0	13.9	13.4	12.7
WB GUNNISON	58.6	51.9	45.6	61.4	62.3	61.8	13.1	12.9	12.4
WB 9879 CLP	58.1	54.3	49.1	59.4	60.5	59.7	14.9	14.5	13.7
VIDA	58.0	51.5	44.8	59.8	61.3	60.6	13.8	13.5	12.8
LANNING	57.0	47.3	45.3	59.7	60.5	59.5	14.6	14.2	12.9
MT SIDNEY	56.7	47.1	46.7	60.3	61.3	60.2	14.7	14.7	13.5
SY LONGMIRE	56.4	51.7	43.6	60.1	61.7	61.3	14.3	14.1	13.4
CORBIN	55.9	49.2	46.8	60.9	61.8	60.6	14.1	14.0	13.7
DUCLAIR	55.2	46.3	38.4	59.5	60.2	59.4	14.7	14.8	13.9
CHOTEAU	54.4	48.2	43.3	59.5	60.3	59.8	14.3	14.0	13.2
SY McCLOUD	54.2	47.5	43.2	61.4	62.4	61.5	15.4	15.4	14.7
SY 611 CL2	54.2	46.7	42.3	61.5	62.7	61.9	14.8	14.7	14.2
WB 9590	54.0	47.8	45.0	60.6	61.7	60.9	15.0	14.8	13.8
REEDER	53.8	46.1	45.9	60.2	61.4	60.9	14.7	14.4	13.2
SY INGMAR	53.0	46.9	40.0	60.1	61.1	60.8	15.1	14.8	14.4
SY Rockford	52.5	46.0	46.7	58.4	59.4	59.1	14.4	14.3	13.6
EGAN	51.5	45.8	45.3	58.5	59.5	58.8	15.4	15.0	14.4
MCNEAL	49.2	43.7	36.5	59.4	60.7	60.1	13.9	13.4	12.9
MT 1855		55.1	53.0		61.1	60.0		14.3	13.9
MT 1809		52.9	43.6		60.5	59.5		14.0	13.0
MT 1939			56.8			60.1			13.3
LCS ASCENT			53.3			61.1			13.8
WB 9516			51.7			61.2			12.4
LNR 1713			51.6			60.3			13.5
LCS BUSTER			51.1			57.4			12.3
MS RANCHERO			50.7			59.9			13.1
MT 1904			50.3			60.7			13.4
MT 1927			50.1			57.0			13.6
MT 1931			50.0			60.0			13.1
MT 1934			49.8			60.0			14.6
BZ917-252			48.2			57.3			13.8
MT 1951			47.5			57.0			14.2
509-2			45.6			59.8			14.2
BZ917-277			44.3			61.0			13.4
MT 1938			43.8			59.4			14.5
MS COBRA			41.2			61.1			13.3
AAC CONCORD			40.7			58.9			13.3
AP GUNSMOKE CL2			40.3			60.1			14.9
THATCHER	43.9	37.6	39.8	57.5	58.2	58.6	14.3	14.0	13.0
AP SMITH			36.7			60.1			14.6
MEAN	55.6	49.1	46.4	60.1	61.1	60.1	14.5	14.2	13.7
C.V.	7.7	9.8	15.0	1.0	0.8	0.9	2.8	2.9	4.9
PROBABILITY (ENTRY)	<0.001	ns	ns	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	7.0	-	-	1.0	1.0	1.0	0.7	0.9	1.1

1) Not planted in 2020

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2018-2021 ADVANCED SPRING WHEAT NURSERY, HAVRE (DRY) : YIELD, TEST WEIGHT AND PROTEIN

DISTRIC 5

ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2018-2021	2019-2021	2020-2021	2021	2018-2021	2019-2021	2020-2021	2021	2018-2021	2019-2021	2020-2021	2021
DAGMAR	<u>47.4</u>	48.5	47.7	25.4	60.4	60.1	60.5	59.6	15.9	15.8	15.6	16.6
VIDA	46.6	47.4	45.1	25.6	59.3	59.2	59.1	58.2	14.9	14.9	14.6	15.5
WB 9879 CLP	46.0	46.5	44.0	24.5	59.3	59.1	59.3	57.7	16.0	15.9	15.6	16.7
SY LONGMIRE	45.2	46.0	43.8	22.7	60.4	60.2	60.0	59.2	15.8	15.6	15.1	16.3
MT SIDNEY	44.9	45.6	43.0	23.0	60.2	59.8	59.8	58.0	15.5	15.5	15.3	16.4
WB GUNNISON	44.8	47.5	44.9	28.7	60.1	60.0	60.0	58.7	14.9	14.8	14.6	15.5
WB 9719	44.7	43.9	41.1	20.9	61.3	<u>61.0</u>	60.7	59.4	15.1	15.0	14.8	15.9
SY ROCKFORD	43.9	43.7	43.0	23.9	58.6	58.2	58.4	56.9	15.4	15.3	15.1	16.3
NS PRESSER CLP	43.6	43.1	41.3	26.3	58.6	58.6	58.7	58.3	15.1	15.0	14.7	15.3
LANNING	43.5	43.4	42.8	21.9	59.2	59.4	59.2	58.3	15.9	15.9	15.4	16.4
CORBIN	42.8	43.5	42.5	28.9	60.2	60.0	60.0	59.4	16.1	15.8	15.5	16.4
CHOTEAU	42.6	44.6	44.6	24.8	59.2	59.0	59.1	57.4	15.8	15.7	15.3	16.4
DUCLAIR	42.4	44.9	42.8	21.8	58.7	58.3	58.2	56.9	15.8	15.7	15.5	16.7
REEDER	42.2	41.7	41.4	21.0	59.7	59.7	59.7	58.2	15.4	15.2	14.9	15.9
SY 611 CL2	41.8	41.6	39.3	18.9	60.7	60.6	60.4	59.2	15.5	15.4	15.1	15.9
SY INGMAR	41.8	41.9	40.6	23.4	60.7	60.4	60.3	59.3	15.8	15.8	15.5	16.6
EGAN	41.5	42.3	41.5	20.2	57.3	57.3	57.4	56.2	<u>16.7</u>	<u>16.5</u>	<u>16.2</u>	17.1
MCNEAL	41.3	41.8	39.2	21.1	58.0	58.2	58.0	57.4	15.3	15.1	14.9	15.9
WB 9590	41.1	42.0	40.1	21.1	61.1	<u>61.0</u>	<u>61.4</u>	60.5	15.9	15.7	15.3	16.5
SY McCLOUD	40.9	41.2	41.1	22.6	<u>61.4</u>	<u>61.0</u>	61.3	59.7	16.1	16.0	15.4	16.3
MT 1809		<u>50.8</u>	<u>50.2</u>	27.6		59.2	59.6	58.9		15.3	15.0	16.0
MT 1855		42.3	38.6	21.4		58.6	58.6	58.1		15.8	15.8	17.3
MT 1938			47.8	26.2			59.7	58.6			15.2	16.2
MT 1904			47.5	26.8			60.7	59.4			15.0	16.4
MT 1934			46.1	25.1			59.8	58.4			14.6	15.6
MT 1927			44.9	25.4			57.6	56.2			15.7	16.9
MT 1939			44.7	23.7			59.3	57.3			14.9	16.1
LCS BUSTER			43.8	26.9			56.0	56.4			14.1	14.6
MT 1931			42.5	21.0			60.0	59.1			15.0	16.0
MT 1951			42.1	21.8			55.5	53.9			16.0	17.2
MS 201			40.4	24.4			59.3	58.5			14.7	15.5
BZ917-277				<u>29.2</u>				54.4				16.3
AAC CONCORD				26.8				59.2				16.0
BZ917-252				26.5				59.8				15.5
WB 9516				24.4				58.1				16.0
509-2				24.0				57.3				16.5
AP GUNSMOKE CL2				23.6				58.4				16.4
LCS ASCENT				21.9				55.4				16.7
AP SMITH				21.9				56.9				15.8
MS COBRA				19.6				57.1				16.3
LNR 1713				19.5				<u>60.9</u>				15.6
THATCHER				16.3				59.2				15.7
MEAN	43.4	44.3	43.2	23.5	59.7	59.5	59.3	58.3	15.6	15.5	15.2	16.2
C.V.	6.7	6.5	7.2	5.5	0.9	0.9	1.2	1.1	1.5	1.8	1.9	1.5
PROBABILITY (ENTRY)	<0.05	<0.01	ns	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	4.1	4.8	-	2.2	0.8	0.9	1.4	1.1	0.3	0.5	0.6	0.4

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2018-2021 ADVANCED SPRING WHEAT NURSERY, SIDNEY (DRY) : YIELD, TEST WEIGHT AND PROTEIN

DISTRIC 6

ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2018-2021	2019-2021	2020-2021	2021	2018-2021	2019-2021	2020-2021	2021	2018-2021	2019-2021	2020-2021	2021
NS PRESSER CLP	<u>63.1</u>	<u>64.9</u>	<u>51.5</u>	<u>55.5</u>	61.3	60.7	60.1	57.9	14.5	14.5	15.0	14.4
WB 9719	63.0	63.5	46.3	50.4	<u>65.0</u>	<u>64.5</u>	<u>63.6</u>	61.8	14.8	14.5	15.3	14.6
VIDA	61.7	61.9	49.7	53.1	62.3	61.8	61.5	59.8	14.2	14.1	14.6	13.7
REEDER	61.0	60.7	47.0	50.1	62.6	62.2	61.6	59.6	15.1	15.1	15.7	14.8
DAGMAR	60.4	61.2	50.4	58.1	63.3	63.0	62.9	62.1	14.9	14.8	15.5	14.2
MT SIDNEY	59.9	61.2	46.1	50.5	62.8	61.9	61.3	58.6	14.6	14.8	15.5	15.1
SY ROCKFORD	59.8	62.9	44.9	51.4	61.4	60.8	60.1	57.6	14.8	14.8	15.7	15.1
WB 9590	58.4	58.4	44.9	53.6	63.4	62.9	62.7	61.3	15.3	15.4	15.9	14.6
MCNEAL	57.8	56.2	40.5	41.8	61.2	60.5	59.4	57.3	14.8	15.0	16.1	15.8
LANNING	57.0	57.0	43.4	48.7	61.9	61.4	60.7	58.4	15.6	15.6	16.0	14.9
SY 611 CL2	56.9	57.5	43.5	49.4	63.6	63.0	62.2	59.7	15.1	15.0	16.0	15.2
CHOTEAU	56.8	59.0	42.7	46.5	62.0	61.5	61.1	59.5	15.1	15.0	15.6	14.8
SY INGMAR	56.7	60.0	47.7	49.4	63.0	62.3	61.9	60.0	15.4	15.2	15.4	14.7
SY LONGMIRE	56.3	55.5	41.8	43.2	63.3	62.8	62.0	59.7	15.1	15.0	15.6	15.0
WB 9879 CLP	55.0	56.0	41.0	46.3	62.3	61.7	61.4	60.0	15.0	15.0	16.0	15.1
DUCLAIR	54.4	55.1	39.2	41.0	61.2	60.6	59.8	57.9	14.7	14.6	15.3	15.2
SY McCLOUD	53.6	54.8	43.0	48.9	64.0	63.4	63.1	61.1	15.8	15.7	15.8	15.1
EGAN	52.1	52.9	39.5	44.6	60.5	59.9	58.8	57.2	16.5	16.4	17.3	16.4
WB GUNNISON	51.6	50.7	39.3	43.6	62.7	62.3	61.8	60.4	14.3	14.2	14.8	14.4
CORBIN	51.5	51.8	37.3	42.9	62.4	61.9	61.5	59.7	15.0	14.9	15.4	15.1
MT 1809		64.1	48.5	51.9		61.3	60.9	58.5		15.0	15.8	15.1
MT 1855		60.2	43.7	49.9		60.9	59.8	56.6		15.2	16.0	15.1
MT 1938			<u>51.7</u>	<u>57.3</u>			61.6	60.1			14.7	14.0
MT 1934			50.9	<u>58.6</u>			61.5	59.8			14.5	13.4
MT 1939			50.7	55.0			61.3	59.4			14.6	13.9
MT 1931			48.0	56.7			61.5	59.8			14.8	14.1
LCS BUSTER			46.6	47.1			59.1	56.2			13.7	13.9
MT 1951			44.8	48.9			57.4	55.1			16.5	16.2
MT 1904			43.9	46.8			62.8	61.2			15.5	15.2
MT 1927			43.9	47.6			58.6	55.9			16.4	16.0
MS RANCHERO			42.7	47.5			62.0	60.4			14.4	13.7
LCS ASCENT				53.6				<u>62.8</u>				13.7
BZ917-277				52.2				60.5				14.8
509-2				49.9				60.6				14.0
MS COBRA				49.8				60.6				15.0
WB 9516				49.7				61.8				14.3
BZ917-252				49.3				55.5				14.9
AP GUNSMOKE CL2				48.6				59.2				15.2
AP SMITH				48.0				59.1				15.5
LNR 1713				47.6				59.2				14.6
AAC CONCORD				42.3				59.2				15.7
THATCHER				37.1				56.7				16.4
MEAN	57.3	58.4	45.0	49.9	62.5	61.9	61.1	59.5	15.0	15.0	15.4	14.7
C.V.	7.0	6.6	6.5	6.2	1.0	1.2	1.2	1.0	3.3	3.5	3.1	3.1
PROBABILITY (ENTRY)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001
LSD(0.05)	5.7	6.4	6.0	5.3	0.9	1.2	1.5	1.0	0.7	0.9	1.0	0.8

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2018-2021 ADVANCED SPRING WHEAT NURSERY, SIDNEY (IRRI) : YIELD, TEST WEIGHT AND PROTEIN

DISTRIC 6

ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2018-2021	2019-2021	2020-2021	2021	2018-2021	2019-2021	2020-2021	2021	2018-2021	2019-2021	2020-2021	2021
SY 611 CL2	<u>92.4</u>	<u>91.0</u>	83.9	63.9	63.8	63.6	63.8	62.7	14.9	14.7	14.6	14.3
WB 9719	91.4	87.6	83.0	71.7	<u>65.6</u>	<u>65.5</u>	<u>65.9</u>	<u>65.6</u>	14.6	14.5	14.2	13.8
VIDA	90.5	89.7	85.8	75.2	62.6	62.8	63.3	63.5	14.6	14.5	14.1	13.3
SY ROCKFORD	89.6	87.4	82.1	68.5	62.0	62.0	62.7	62.4	14.5	14.4	14.2	14.0
MT SIDNEY	89.6	85.2	82.9	67.7	63.6	63.5	64.0	63.1	14.9	14.7	14.3	13.7
SY LONGMIRE	89.6	89.7	84.5	68.4	63.2	63.3	63.6	62.8	15.0	14.7	14.4	14.1
DAGMAR	89.5	88.3	84.7	74.0	62.9	62.9	63.5	63.3	15.9	15.6	15.5	14.8
SY INGMAR	88.8	86.4	81.8	63.4	63.7	63.4	63.9	62.8	15.2	15.1	14.9	14.7
REEDER	88.6	86.9	83.0	72.9	62.9	62.8	63.2	62.6	15.3	15.1	14.9	14.7
LANNING	87.2	85.9	80.2	61.3	61.7	61.4	61.6	60.0	15.8	15.8	15.7	15.3
WB 9590	86.0	83.6	78.9	64.2	62.8	62.7	63.2	62.4	15.5	15.3	15.0	14.6
NS PRESSER CLP	83.8	85.1	83.0	<u>77.4</u>	61.7	62.0	62.7	63.6	14.4	14.3	13.9	13.1
SY McCLOUD	82.9	84.0	80.0	66.8	64.3	64.2	64.8	64.6	15.7	15.4	15.3	15.0
DUCLAIR	81.7	79.5	75.1	62.6	61.8	61.5	61.9	61.1	14.9	14.7	14.7	14.4
MCNEAL	81.0	79.1	73.3	61.1	61.7	61.5	61.7	60.9	15.6	15.6	15.5	15.7
CHOTEAU	79.5	77.9	75.6	63.5	62.0	62.0	62.5	62.4	15.1	15.0	15.0	14.4
WB 9879 CLP	79.0	76.9	75.1	63.9	62.2	62.1	63.0	62.7	15.4	15.4	15.1	15.0
WB GUNNISON	78.1	77.5	77.6	65.9	63.3	63.3	63.9	63.8	14.4	14.1	13.9	13.7
CORBIN	77.4	76.8	74.1	56.0	63.1	63.0	63.7	63.3	15.3	15.2	15.0	15.1
EGAN	77.1	76.3	70.4	60.4	61.2	61.0	61.0	60.3	<u>16.2</u>	<u>16.2</u>	16.4	16.7
MT 1809		89.4	<u>86.9</u>	68.0		62.3	63.0	62.8		15.1	14.6	14.1
MT 1855		86.0	82.5	73.9		62.5	62.8	62.4		14.6	14.4	13.9
MT 1934			84.9	73.1			62.3	62.1			15.1	14.2
MS RANCHERO			84.2	62.8			62.9	62.2			14.0	14.0
MT 1931			83.8	68.9			62.2	61.1			15.5	15.0
LCS BUSTER			82.8	57.7			61.2	60.1			12.9	13.4
MT 1939			82.3	66.2			62.6	61.6			14.5	14.1
MT 1938			81.9	67.2			62.8	62.6			15.1	14.8
MT 1927			80.8	64.9			61.6	60.7			14.8	15.1
MT 1951			78.2	57.9			59.6	58.3			<u>16.5</u>	<u>16.9</u>
509-2				73.5				63.0				13.0
WB 9516				73.2				<u>65.6</u>				13.7
BZ917-277				71.0				63.7				14.0
LCS ASCENT				70.6				64.3				13.4
AP SMITH				66.9				62.6				14.8
BZ917-252				64.9				59.0				15.3
LNR 1713				64.4				63.3				13.6
AP GUNSMOKE CL2				64.0				62.3				14.4
MS COBRA				60.7				63.5				14.7
AAC CONCORD				55.1				62.6				15.9
THATCHER				54.5				61.7				15.0
MEAN	85.2	84.1	80.6	65.3	62.8	62.7	62.8	62.5	15.1	15.0	14.8	14.5
C.V.	5.6	5.7	7.4	10.5	1.0	1.0	1.2	1.2	2.5	2.7	3.4	4.8
PROBABILITY (ENTRY)	<0.001	<0.001	ns	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	6.7	7.8	-	10.4	0.9	1.0	1.6	0.9	0.5	0.7	1.0	1.1

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

**2021 OVERALL AGRONOMIC SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY
GROWN UNDER RAIN-FED CONDITION**

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
MT 1939	38.8	58.2	15.2	175.0	24.1
DAGMAR	37.9	59.3	16.1	173.6	25.1
MT 1809	37.5	57.8	15.9	175.5	24.4
NS PRESSER CLP	37.3	57.7	15.2	178.2	25.6
MT 1934	37.2	58.4	15.5	174.4	25.0
MT 1931	37.0	58.2	15.5	174.0	24.0
VIDA	36.9	58.5	15.0	176.4	24.7
LCS ASCENT	36.8	60.4	15.3	173.7	24.9
WB 9516	36.6	60.2	15.1	176.4	24.4
MT SIDNEY	36.1	58.3	15.8	175.6	25.4
MT 1938	36.1	58.0	15.8	174.5	24.5
BZ917-277	35.9	59.6	15.7	176.6	24.9
MT 1904	35.8	59.8	15.8	176.9	24.4
MT 1927	35.4	56.0	16.2	177.4	24.9
MT 1855	35.1	58.1	15.9	176.9	25.8
LNR 1713	34.9	58.5	15.4	174.9	24.7
MS RANCHERO	34.9	58.2	15.2	174.0	25.0
WB 9879 CLP	34.6	58.1	16.1	176.4	24.0
BZ917-252	34.5	54.8	16.2	177.3	22.6
LANNING	34.4	57.6	16.1	174.3	23.0
SY ROCKFORD	34.3	56.8	15.8	177.6	23.9
WB 9719	34.2	60.3	15.4	177.3	23.2
REEDER	34.0	58.7	15.7	176.2	24.4
509-2	33.8	57.9	15.8	173.7	23.4
WB 9590	33.7	59.2	16.2	174.2	21.6
WB GUNNISON	33.4	59.0	15.3	175.7	23.4
SY McCLOUD	33.0	59.4	16.3	174.9	23.9
MT 1951	33.0	55.1	17.0	175.6	25.4
SY LONGMIRE	33.0	59.2	16.0	175.9	24.0
LCS BUSTER	33.0	56.6	14.4	178.9	23.4
CORBIN	32.9	59.1	15.9	173.8	24.7
AAC CONCORD	32.8	57.7	16.0	176.7	26.6
CHOTEAU	32.8	58.1	16.0	175.7	24.3
AP GUNSMOKE CL2	32.8	57.9	16.7	174.7	23.3
SY INGMAR	32.7	58.5	16.5	175.9	23.3
SY 611 CL2	32.3	59.1	15.9	175.6	22.8
AP SMITH	32.3	58.1	16.3	176.8	21.7
DUCLAIR	32.2	57.1	15.9	174.1	24.1
MS COBRA	32.2	59.1	16.1	174.5	23.9
EGAN	31.3	56.5	17.1	177.0	24.5
MCNEAL	31.1	57.5	15.9	176.9	25.2
THATCHER	26.0	55.4	16.1	179.3	29.9
MEAN	34.5	58.3	15.8	175.3	24.4
C.V.	8.8	1.8	3.2	0.5	5.2
PROBABILITY(LINE)	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	2.7	0.9	0.4	1.0	1.1

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

**2021 OVERALL AGRONOMIC SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY
GROWN UNDER IRRIGATED / HIGH RAINFALL CONDITION**

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
WB 9516	93.9	63.2	13.2	177.6	30.0
NS PRESSER CLP	92.3	61.5	12.2	178.7	33.5
MT SIDNEY	90.7	61.8	12.6	176.7	34.0
LCS BUSTER	88.4	58.7	12.2	180.8	29.8
MT 1939	88.2	60.5	12.8	174.4	31.1
MT 1934	88.1	61.0	12.6	173.8	31.3
MT 1927	87.9	59.4	13.2	178.3	33.6
MT 1855	87.4	61.1	12.2	177.5	33.0
MT 1809	86.7	61.1	12.1	175.9	32.9
LCS ASCENT	85.8	62.1	11.9	173.9	32.4
SY ROCKFORD	85.8	60.3	12.8	178.6	30.8
VIDA	85.1	61.7	11.9	176.6	32.4
BZ917-277	84.6	62.3	12.5	177.9	32.7
MS RANCHERO	84.2	60.6	12.0	174.2	33.1
WB 9719	84.1	64.1	12.3	178.2	29.4
REEDER	84.1	61.9	13.0	176.5	32.4
WB 9590	83.1	60.9	13.2	175.8	26.9
MS COBRA	83.0	61.9	13.6	175.2	31.3
SY LONGMIRE	82.9	62.0	12.3	175.4	30.3
AP SMITH	82.6	61.5	13.8	178.1	29.4
BZ917-252	82.0	57.8	13.4	178.5	27.8
WB GUNNISON	81.0	62.3	12.2	176.0	29.1
SY 611 CL2	80.4	61.9	12.3	174.9	28.7
MT 1931	80.2	60.2	12.9	174.0	30.6
LNR 1713	80.0	61.5	11.7	176.1	32.2
MT 1904	79.2	62.6	11.6	176.8	33.6
MT 1938	79.0	60.8	12.8	174.5	32.0
MT 1951	79.0	57.6	14.7	176.6	34.2
DAGMAR	78.9	61.4	12.7	174.0	32.7
LANNING	78.3	59.9	13.3	174.8	31.0
SY McCLOUD	77.6	63.2	12.9	174.7	30.7
CORBIN	77.4	61.6	12.7	174.4	30.9
DUCLAIR	77.2	60.1	12.5	173.9	32.6
AP GUNSMOKE CL2	76.8	60.8	12.4	175.1	30.9
MCNEAL	76.5	60.6	13.3	178.0	32.7
SY INGMAR	75.9	62.0	13.0	176.4	29.7
509-2	75.7	61.3	11.5	173.6	29.6
WB 9879 CLP	74.2	61.0	12.9	176.5	30.8
CHOTEAU	74.0	60.9	12.4	175.8	32.2
THATCHER	71.2	60.4	13.5	180.5	41.4
EGAN	70.2	59.9	14.4	177.7	30.8
AAC CONCORD	67.3	60.8	13.2	177.5	35.9
MEAN	81.4	61.1	12.7	175.6	31.6
C.V.	10.0	1.2	5.2	0.7	4.3
PROBABILITY(LINE)	ns	<0.001	<0.01	<0.001	<0.001
LSD(0.05)	-	1.5	1.3	2.3	2.7

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

**2021 OVERALL AGRONOMIC SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY
GROWN ACROSS MONTANA (COMBINED)**

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
MT 1939	<u>47.1</u>	58.6	14.8	174.8	25.2
NS PRESSER CLP	46.4	58.3	14.7	178.3	26.9
WB 9516	46.1	60.7	14.7	176.7	25.3
MT 1934	45.7	58.8	15.0	174.2	26.0
MT 1809	45.7	58.3	15.3	175.6	25.8
MT SIDNEY	45.2	58.9	15.2	175.9	26.9
LCS ASCENT	45.0	60.6	14.7	173.7	26.1
VIDA	44.9	59.0	14.5	176.4	26.0
DAGMAR	44.7	59.7	15.5	173.7	26.4
MT 1931	44.2	58.5	15.1	174.0	25.1
MT 1927	44.1	56.6	15.7	177.6	26.3
BZ917-277	44.0	60.1	15.1	177.0	26.2
MT 1855	43.8	58.6	15.3	177.1	27.0
MT 1938	43.2	58.5	15.3	174.5	25.7
MS RANCHERO	43.1	58.6	14.7	174.0	26.3
MT 1904	43.0	60.3	15.1	176.8	25.9
SY ROCKFORD	42.9	57.3	15.3	177.8	25.1
WB 9719	42.5	61.0	14.9	177.6	24.2
BZ917-252	42.4	55.3	15.7	177.6	23.4
LNR 1713	42.4	59.0	14.8	175.2	26.0
REEDER	42.3	59.2	15.3	176.3	25.7
LCS BUSTER	42.2	56.9	14.1	179.5	24.5
WB 9590	41.9	59.5	15.7	174.6	22.5
LANNING	41.7	58.0	15.6	174.4	24.3
WB GUNNISON	41.4	59.6	14.8	175.7	24.4
SY LONGMIRE	41.3	59.7	15.4	175.7	25.0
WB 9879 CLP	41.2	58.6	15.5	176.4	25.2
509-2	40.8	58.5	15.1	173.6	24.4
MT 1951	40.7	55.5	16.6	175.9	26.9
AP SMITH	40.7	58.7	15.9	177.2	23.0
MS COBRA	40.6	59.6	15.7	174.7	25.1
SY McCLOUD	40.5	60.0	15.8	174.8	25.0
CORBIN	40.3	59.5	15.3	174.0	25.7
SY 611 CL2	40.3	59.5	15.3	175.4	23.8
AP GUNSMOKE CL2	40.1	58.3	16.0	174.8	24.6
SY INGMAR	39.9	59.1	15.9	176.0	24.4
DUCLAIR	39.7	57.6	15.4	174.0	25.5
CHOTEAU	39.7	58.6	15.4	175.7	25.6
MCNEAL	38.6	58.0	15.5	177.2	26.4
AAC CONCORD	38.6	58.2	15.5	176.9	28.1
EGAN	37.8	57.1	16.6	177.2	25.6
THATCHER	33.5	56.2	15.6	179.7	31.8
MEAN	42.3	58.7	15.3	175.4	25.6
C.V.	10.1	1.7	3.6	0.5	5.0
PROBABILITY(LINE)	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	3.4	0.8	0.4	0.9	1.0

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

**2021 MAJOR AGRONOMIC TRAITS, STEM SOLIDNESS AND SAW FLY CUT OF SOME ENTRIES FOR THE
ADVANCED SPRING WHEAT NURSERY GROWN UNDER RAIN-FED CONDITION**

ID	YIELD	TEST	PROTEIN	STEM	SAW FLY	SAW FLY	SAW FLY	SAW FLY
	(BU/AC)	WEIGHT (LB/BU)	(%)	SOLIDNESS (5-25)	CUT (%) <u>FORT BENTON</u>	CUT (%) <u>HAVRE</u>	CUT (%) <u>RUDYARD</u>	CUT (%) <u>COMBINED</u>
MT 1939	38.8	58.2	15.2	19.7	29.7	31.7	16.1	25.8
DAGMAR	37.9	59.3	16.1	19.7	32.8	3.7	1.9	12.8
MT 1809	37.5	57.8	15.9	13.1	33.7	25.0	16.6	25.1
NS PRESSER CLP	37.3	57.7	15.2	7.2	59.6	23.3	17.8	33.6
MT 1934	37.2	58.4	15.5	15.6	31.0	15.0	15.6	20.5
MT 1931	37.0	58.2	15.5	7.1	65.3	73.3	14.8	51.1
VIDA	36.9	58.5	15.0	14.5	28.4	15.0	18.3	20.6
LCS ASCENT	36.8	60.4	15.3	7.2	53.0	55.0	8.8	38.9
WB 9516	36.6	60.2	15.1	8.6	39.1	35.0	8.0	27.4
MT SIDNEY	36.1	58.3	15.8	11.3	62.2	25.0	18.5	35.2
MT 1938	36.1	58.0	15.8	19.4	42.7	21.7	17.5	27.3
BZ917-277	35.9	59.6	15.7	12.7	24.7	15.0	12.3	17.3
WB 9879 CLP	34.6	58.1	16.1	23.4	17.6	3.7	3.8	8.3
BZ917-252	34.5	54.8	16.2	11.1	61.4	41.7	16.7	39.9
LANNING	34.4	57.6	16.1	7.3	68.6	56.7	16.9	47.4
SY ROCKFORD	34.3	56.8	15.8	8.1	68.8	65.0	17.2	50.3
WB 9719	34.2	60.3	15.4	6.4	37.7	63.3	9.3	36.8
REEDER	34.0	58.7	15.7	7.8	43.1	46.7	15.8	35.2
WB 9590	33.7	59.2	16.2	8.1	54.1	53.3	3.1	36.8
WB GUNNISON	33.4	59.0	15.3	11.8	16.2	1.0	0.7	6.0
SY LONGMIRE	33.0	59.2	16.0	21.1	41.3	11.7	8.0	20.3
LCS BUSTER	33.0	56.6	14.4	20.0	22.4	1.0	5.4	9.6
CORBIN	32.9	59.1	15.9	12.9	29.4	8.3	0.9	12.9
AAC CONCORD	32.8	57.7	16.0	24.1	19.0	1.0	2.6	7.5
CHOTEAU	32.8	58.1	16.0	20.7	25.0	6.7	8.8	13.5
AP GUNSMOKE CL2	32.8	57.9	16.7	7.2	61.4	60.0	7.8	43.1
SY INGMAR	32.7	58.5	16.5	7.7	52.1	45.0	7.1	34.7
DUCLAIR	32.2	57.1	15.9	20.0	26.6	5.0	6.5	12.7

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 ADVANCED SPRING WHEAT NURSERY, KALISPELL (HIGH RAINFALL)

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)	1,000 KERNEL WEIGHT (G)
50	LCS BUSTER	119.1	57.2	10.9	182.3	34.7	37.3
64	WB 9516	114.5	60.7	12.6	180.3	31.8	43.5
16	MT SIDNEY	113.7	60.4	11.4	177.0	36.4	41.3
20	MT 1927	110.8	58.1	11.3	178.0	35.9	39.6
24	MT 1939	110.2	59.3	11.4	175.0	33.5	42.2
13	NS PRESSER CLP	107.1	59.4	11.2	178.5	36.0	39.2
53	MS RANCHERO	105.5	59.0	10.0	175.2	38.3	38.4
17	MT 1809	105.3	59.3	10.1	177.7	37.0	38.0
55	MS COBRA	105.2	60.2	12.5	176.8	33.0	33.7
22	MT 1934	103.1	59.8	11.0	175.6	33.5	37.3
2	SY ROCKFORD	103.0	58.1	11.6	179.5	32.5	37.0
62	WB 9590	102.0	59.3	11.8	178.7	29.8	39.3
51	LCS ASCENT	101.0	59.8	10.3	175.7	35.7	34.7
18	MT 1855	100.9	59.7	10.5	177.1	35.8	39.1
25	MT 1951	100.0	56.8	12.5	178.5	37.0	35.0
30	BZ917-252	99.1	56.6	11.4	179.4	30.8	34.6
4	CORBIN	98.7	59.9	10.2	175.8	34.7	44.7
59	AP SMITH	98.2	60.4	12.7	178.4	31.5	34.1
48	BZ917-277	98.2	60.8	10.9	176.9	36.0	35.4
57	SY LONGMIRE	97.3	61.1	10.5	176.6	32.7	36.1
58	SY 611 CL2	96.9	61.1	10.3	177.0	31.4	34.8
19	MT 1904	96.6	60.6	9.9	177.1	36.9	35.5
63	WB 9719	96.5	62.6	10.8	179.4	32.7	37.4
3	WB GUNNISON	96.0	60.7	10.6	178.1	32.6	44.1
52	LNR 1713	95.6	59.7	9.7	178.5	34.9	36.6
12	LANNING	95.3	59.8	11.2	176.9	34.4	38.1
6	REEDER	95.2	61.2	11.2	178.6	34.6	39.1
9	VIDA	95.0	59.8	10.5	177.7	35.7	39.4
7	MCNEAL	91.8	60.2	10.9	178.1	35.1	39.7
10	DUCLAIR	91.7	59.1	10.6	175.1	35.7	37.2
21	MT 1931	91.5	59.2	10.8	175.2	32.7	43.5
23	MT 1938	90.8	58.9	10.7	176.9	34.1	37.1
60	AP GUNSMOKE CL2	89.6	59.2	10.4	176.2	34.1	36.0
1	SY INGMAR	88.4	61.1	11.3	177.1	30.5	34.7
56	SY McCLOUD	88.4	61.7	10.8	176.0	33.2	40.2
15	WB 9879 CLP	84.5	59.3	10.7	178.0	33.1	35.2
8	CHOTEAU	84.5	59.4	10.3	176.0	36.1	37.3
14	DAGMAR	83.8	59.5	10.5	175.2	33.5	41.2
11	EGAN	80.0	59.4	12.0	177.9	32.7	34.5
54	AAC CONCORD	79.4	58.9	10.4	178.3	40.7	39.8
61	509-2	77.9	59.6	10.0	175.0	31.0	35.8
MEAN (n=64)		97.5	59.6	11.0	176.8	34.4	38.3
C.V.		6.7	0.7	4.6	0.6	3.5	2.5
Prob. (ENTRY)		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)		11.3	0.8	0.9	1.7	2.1	1.7

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 ADVANCED SPRING WHEAT NURSERY, **BOZEMAN** (DRY)

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)	STEM SOLIDNESS (5-25)
24	MT 1939	65.8	60.4	14.4	175.0	27.6	19.7
16	MT SIDNEY	64.3	59.4	14.7	175.7	30.9	11.3
22	MT 1934	62.9	59.4	15.8	175.0	28.5	15.6
14	DAGMAR	62.7	60.8	15.8	174.7	29.0	19.7
23	MT 1938	61.3	59.0	15.1	174.0	28.7	19.4
17	MT 1809	61.3	58.4	15.4	175.3	28.5	13.1
21	MT 1931	61.3	59.5	15.1	173.7	28.3	7.1
18	MT 1855	61.1	60.2	14.3	177.3	29.7	17.9
9	VIDA	60.8	59.6	14.1	176.0	28.5	14.5
53	MS RANCHERO	60.1	59.1	14.9	173.7	29.4	8.2
64	WB 9516	59.5	61.4	13.9	177.0	25.6	8.6
63	WB 9719	59.0	62.9	14.6	178.0	25.1	6.4
13	NS PRESSER CLP	58.7	58.6	15.3	178.7	29.6	7.2
52	LNR 1713	58.3	59.3	14.5	175.0	28.6	7.5
2	SY Rockford	58.3	58.2	14.8	179.0	26.1	8.1
12	LANNING	58.3	59.2	15.6	174.7	27.5	7.3
19	MT 1904	58.1	61.2	15.2	176.7	28.4	22.3
56	SY McCLOUD	58.0	61.9	14.2	175.7	27.2	7.7
48	BZ917-277	57.9	60.2	15.2	176.0	26.0	12.7
51	LCS ASCENT	57.9	59.8	15.1	174.3	28.9	7.2
50	LCS BUSTER	57.4	56.7	12.6	179.0	26.4	20.0
20	MT 1927	57.2	57.9	15.2	177.7	28.8	18.1
15	WB 9879 CLP	56.3	59.8	15.0	176.0	28.3	23.4
30	BZ917-252	56.2	55.7	14.7	178.3	24.6	11.1
61	509-2	56.1	59.6	14.7	174.7	25.8	10.7
6	REEDER	56.0	60.9	14.8	176.3	29.3	7.8
25	MT 1951	55.5	57.3	16.2	175.3	30.7	8.0
8	CHOTEAU	55.0	59.4	14.6	175.0	28.5	20.7
59	AP SMITH	54.8	58.7	15.7	178.3	24.2	8.6
1	SY INGMAR	54.5	59.8	15.6	176.3	25.5	7.7
55	MS COBRA	54.4	59.9	15.6	174.7	27.7	6.7
11	EGAN	54.0	58.8	16.4	176.7	27.1	7.8
58	SY 611 CL2	53.7	61.3	14.7	176.3	23.8	7.9
62	WB 9590	53.6	59.7	15.3	175.0	22.9	8.1
60	AP GUNSMOKE CL2	53.2	58.1	15.8	175.0	26.1	7.2
57	SY LONGMIRE	52.9	60.0	15.2	176.0	27.5	21.1
10	DUCLAIR	52.8	58.5	14.7	174.0	29.5	20.0
3	WB GUNNISON	51.8	60.7	14.5	175.0	26.2	11.8
54	AAC CONCORD	51.5	58.4	15.7	177.7	31.7	24.1
4	CORBIN	50.4	60.4	14.2	174.7	27.5	12.9
7	MCNEAL	49.9	58.5	15.0	177.0	28.0	8.3
MEAN (n=64)		57.1	59.6	15.0	175.6	28.1	13.3
C.V.		3.5	1 rep	1 rep	0.3	2.7	8.3
Prob. (ENTRY)		<0.001	1 rep	1 rep	<0.001	<0.001	<0.001
LSD(0.05)		3.5	1 rep	1 rep	1.0	1.3	1.8

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 ADVANCED SPRING WHEAT NURSERY, HUNTLEY (DRY)

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
24	MT 1939	50.7	57.7	16.3	27.7
21	MT 1931	48.9	56.4	16.6	32.8
10	DUCLAIR	47.1	55.8	17.1	29.4
12	LANNING	45.8	56.6	17.3	27.9
14	DAGMAR	44.1	58.3	17.6	31.6
23	MT 1938	43.9	56.9	17.0	29.3
57	SY LONGMIRE	43.6	57.0	17.5	27.8
9	VIDA	42.8	57.2	16.7	28.3
20	MT 1927	42.5	55.6	17.5	29.4
17	MT 1809	41.9	56.0	17.4	28.8
58	SY 611 CL2	41.6	55.8	17.3	29.9
6	REEDER	41.5	58.0	17.0	28.9
48	BZ917-277	41.2	59.7	17.3	26.7
19	MT 1904	40.8	59.7	17.2	28.6
2	SY Rockford	40.8	56.6	17.0	27.3
16	MT SIDNEY	40.4	58.5	16.7	31.5
64	WB 9516	40.3	59.8	16.3	28.0
1	SY INGMAR	40.3	55.4	18.5	29.4
22	MT 1934	40.3	57.2	17.2	32.2
15	WB 9879 CLP	39.5	57.8	17.3	29.3
30	BZ917-252	39.3	51.9	19.2	28.1
18	MT 1855	39.2	58.4	17.0	28.6
8	CHOTEAU	38.7	57.6	17.3	30.0
63	WB 9719	38.7	57.5	17.0	28.1
13	NS PRESSER CLP	38.2	56.8	17.0	26.8
61	509-2	38.0	56.2	18.1	28.0
60	AP GUNSMOKE CL2	37.9	56.2	18.9	27.6
3	WB GUNNISON	37.9	57.1	17.3	25.7
25	MT 1951	37.2	54.8	18.7	32.5
59	AP SMITH	36.8	55.5	17.7	25.9
52	LNR 1713	36.6	56.3	16.8	28.5
54	AAC CONCORD	36.6	58.6	17.7	30.2
51	LCS ASCENT	36.5	59.5	16.9	30.3
11	EGAN	36.3	56.1	19.5	27.2
56	SY McCLOUD	36.3	58.2	17.9	28.2
53	MS RANCHERO	36.0	57.2	16.9	32.7
4	CORBIN	36.0	58.5	17.1	31.4
62	WB 9590	35.3	56.9	18.2	25.7
7	MCNEAL	34.7	57.4	18.3	27.3
55	MS COBRA	33.4	58.7	18.2	28.6
50	LCS BUSTER	25.8	58.1	16.1	27.8
MEAN (n=64)		39.7	57.3	17.3	29.2
C.V.		12.4	1.3	2.0	7.4
Prob. (ENTRY)		<0.001	<0.001	<0.001	<0.001
LSD(0.05)		8.4	1.3	0.6	3.5

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 ADVANCED SPRING WHEAT NURSERY, MOCCASIN (DRY)

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
21	MT 1931	30.0	55.0	17.4	178.4	20.4
19	MT 1904	28.3	58.1	17.2	180.2	18.6
61	509-2	28.2	56.1	17.0	177.7	21.1
51	LCS ASCENT	27.9	58.3	16.7	177.9	20.6
2	SY Rockford	27.8	55.0	17.3	181.3	20.9
24	MT 1939	27.5	55.1	17.2	178.1	20.7
22	MT 1934	27.3	55.7	17.0	178.6	21.9
64	WB 9516	26.9	58.9	16.8	179.3	20.2
55	MS COBRA	26.7	57.7	17.6	178.7	20.5
13	NS PRESSER CLP	26.4	54.8	17.5	181.4	20.2
7	MCNEAL	25.8	56.7	17.1	180.3	21.8
16	MT SIDNEY	25.6	56.1	17.8	177.7	21.1
17	MT 1809	25.4	54.8	17.5	179.3	19.4
56	SY McCLOUD	25.2	57.6	17.8	178.0	22.1
53	MS RANCHERO	25.1	56.3	16.9	177.3	21.4
18	MT 1855	25.0	55.5	17.6	179.3	20.3
48	BZ917-277	24.2	58.2	17.3	180.2	19.5
12	LANNING	24.1	54.8	17.5	177.2	21.8
9	VIDA	24.0	55.6	17.2	180.0	18.9
59	AP SMITH	23.7	56.0	18.1	179.7	19.0
15	WB 9879 CLP	23.6	55.6	17.7	179.7	18.4
60	AP GUNSMOKE CL2	23.6	55.1	18.4	178.0	20.7
62	WB 9590	23.6	56.1	18.2	178.1	18.4
57	SY LONGMIRE	23.4	56.8	18.1	179.2	20.3
52	LNR 1713	23.4	55.6	17.2	178.7	21.6
23	MT 1938	23.1	54.9	17.3	178.0	19.0
30	BZ917-252	23.1	51.0	18.6	180.9	18.0
54	AAC CONCORD	23.1	55.7	18.0	179.8	19.9
14	DAGMAR	22.9	56.6	17.3	178.1	18.8
63	WB 9719	22.8	59.0	16.8	181.4	18.7
4	CORBIN	22.7	57.4	17.8	177.3	20.3
1	SY INGMAR	22.5	55.1	18.9	179.6	19.2
6	REEDER	22.5	56.7	17.7	179.6	19.5
25	MT 1951	22.5	52.8	18.2	179.1	20.7
20	MT 1927	22.2	52.5	18.3	180.4	18.3
58	SY 611 CL2	22.1	57.5	17.3	178.8	19.6
10	DUCLAIR	22.1	54.6	17.4	177.4	20.1
8	CHOTEAU	21.9	54.8	18.1	179.0	17.8
3	WB GUNNISON	21.9	56.8	16.9	179.5	19.0
11	EGAN	21.6	55.0	18.5	180.3	20.0
50	LCS BUSTER	20.5	53.4	17.5	181.9	18.0
MEAN (n=64)		24.3	55.9	17.5	178.7	20.2
C.V.		13.2	1.0	2.3	0.4	5.1
Prob. (ENTRY)		<0.05	<0.001	<0.001	<0.001	<0.001
LSD(0.05)		5.6	0.9	0.7	1.2	1.8

bold : highest or earliest value within a column

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2021 ADVANCED SPRING WHEAT NURSERY, CONRAD (DRY)

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
24	MT 1939	56.8	60.1	13.3	28.7
51	LCS ASCENT	53.3	61.1	13.8	28.3
18	MT 1855	53.0	60.0	13.9	31.4
64	WB 9516	51.7	61.2	12.4	27.5
52	LNR 1713	51.6	60.3	13.5	28.9
50	LCS BUSTER	51.1	57.4	12.3	29.5
53	MS RANCHERO	50.7	59.9	13.1	31.0
19	MT 1904	50.3	60.7	13.4	29.7
14	DAGMAR	50.2	60.8	14.5	27.8
20	MT 1927	50.1	57.0	13.6	29.5
21	MT 1931	50.0	60.0	13.1	27.8
22	MT 1934	49.8	60.0	14.6	28.2
13	NS PRESSER CLP	49.5	60.0	12.7	31.8
15	WB 9879 CLP	49.1	59.7	13.7	27.9
30	BZ917-252	48.2	57.3	13.8	26.5
25	MT 1951	47.5	57.0	14.2	30.1
4	CORBIN	46.8	60.6	13.7	29.1
16	MT SIDNEY	46.7	60.2	13.5	29.6
2	SY ROCKFORD	46.7	59.1	13.6	27.9
6	REEDER	45.9	60.9	13.2	29.0
61	509-2	45.6	59.8	14.2	28.8
3	WB GUNNISON	45.6	61.8	12.4	27.8
12	LANNING	45.3	59.5	12.9	27.3
11	EGAN	45.3	58.8	14.4	27.9
62	WB 9590	45.0	60.9	13.8	24.2
9	VIDA	44.8	60.6	12.8	29.7
48	BZ917-277	44.3	61.0	13.4	29.9
63	WB 9719	44.2	64.1	12.7	26.1
23	MT 1938	43.8	59.4	14.5	26.7
57	SY LONGMIRE	43.6	61.3	13.4	27.8
17	MT 1809	43.6	59.5	13.0	29.3
8	CHOTEAU	43.3	59.8	13.2	29.1
56	SY McCLOUD	43.2	61.5	14.7	26.6
58	SY 611 CL2	42.3	61.9	14.2	24.5
55	MS COBRA	41.2	61.1	13.3	27.7
54	AAC CONCORD	40.7	58.9	13.3	31.4
60	AP GUNSMOKE CL2	40.3	60.1	14.9	26.0
1	SY INGMAR	40.0	60.8	14.4	25.3
10	DUCLAIR	38.4	59.4	13.9	27.7
59	AP SMITH	36.7	60.1	14.6	25.4
7	MCNEAL	36.5	60.1	12.9	28.2
MEAN (n=64)		46.4	60.1	13.7	28.4
C.V.		15.0	0.9	4.9	4.3
Prob. (ENTRY)		ns	<0.001	<0.001	<0.001
LSD(0.05)		-	1.0	1.1	2.1

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 ADVANCED SPRING WHEAT NURSERY, HAVRE (DRY)

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)	SAW FYL CUT (%)
48	BZ917-277	29.2	59.2	15.7	173.1	24.6	15.0
4	CORBIN	28.9	59.4	16.4	170.3	22.9	8.3
3	WB GUNNISON	28.7	58.7	15.5	173.7	22.2	1.0
17	MT 1809	27.6	58.9	16.0	172.6	22.6	25.0
50	LCS BUSTER	26.9	56.4	14.6	176.1	21.0	1.0
54	AAC CONCORD	26.8	57.1	16.3	173.0	25.5	1.0
19	MT 1904	26.8	59.4	16.4	173.5	22.8	2.3
30	BZ917-252	26.5	54.4	16.3	173.8	21.4	41.7
13	NS PRESSER CLP	26.3	58.3	15.3	175.0	24.0	23.3
23	MT 1938	26.2	58.6	16.2	172.3	23.5	21.7
9	VIDA	25.6	58.2	15.5	173.6	24.9	15.0
20	MT 1927	25.4	56.2	16.9	174.6	23.9	6.7
14	DAGMAR	25.4	59.6	16.6	170.7	22.3	3.7
22	MT 1934	25.1	58.4	15.6	169.5	22.0	15.0
8	CHOTEAU	24.8	57.4	16.4	173.3	22.9	6.7
15	WB 9879 CLP	24.5	57.7	16.7	174.1	22.2	3.7
53	MS RANCHERO	24.4	58.5	15.5	170.4	20.9	50.0
64	WB 9516	24.4	59.8	15.5	172.7	23.9	35.0
61	509-2	24.0	58.1	16.0	170.8	19.8	71.7
2	SY Rockford	23.9	56.9	16.3	173.4	23.4	65.0
24	MT 1939	23.7	57.3	16.1	172.7	22.0	31.7
60	AP GUNSMOKE CL2	23.6	57.3	16.5	171.9	20.5	60.0
1	SY INGMAR	23.4	59.3	16.6	173.6	21.9	45.0
16	MT SIDNEY	23.0	58.0	16.4	173.6	23.2	25.0
57	SY LONGMIRE	22.7	59.2	16.3	172.6	21.9	11.7
56	SY McCLOUD	22.6	59.7	16.3	170.9	22.8	71.7
51	LCS ASCENT	21.9	60.9	15.6	170.4	23.8	55.0
12	LANNING	21.9	58.3	16.4	169.3	18.7	56.7
59	AP SMITH	21.9	58.4	16.4	173.3	19.6	60.0
10	DUCLAIR	21.8	56.9	16.7	171.8	22.9	5.0
25	MT 1951	21.8	53.9	17.2	172.2	24.2	55.0
18	MT 1855	21.4	58.1	17.3	174.5	25.6	13.3
62	WB 9590	21.1	60.5	16.5	171.0	19.0	53.3
7	MCNEAL	21.1	57.4	15.9	173.3	23.9	48.3
21	MT 1931	21.0	59.1	16.0	169.7	18.5	73.3
6	REEDER	21.0	58.2	15.9	173.2	24.1	46.7
63	WB 9719	20.9	59.4	15.9	173.8	22.7	63.3
11	EGAN	20.2	56.2	17.1	173.7	23.8	58.3
55	MS COBRA	19.6	59.1	16.5	170.8	21.8	46.7
52	LNR 1713	19.5	59.2	16.0	172.6	22.2	35.0
58	SY 611 CL2	18.9	59.2	15.9	172.9	20.2	68.3
MEAN (n=64)		23.5	58.3	16.2	172.1	22.6	32.2
C.V.		5.5	1.1	1.5	0.5	4.0	24.2
Prob. (ENTRY)		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)		2.2	1.1	0.4	1.4	1.5	13.3

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 ADVANCED SPRING WHEAT NURSERY, SIDNEY (DRY)

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
22	MT 1934	58.6	59.8	13.4	166.7	25.7
14	DAGMAR	58.1	62.1	14.2	166.2	25.5
23	MT 1938	57.3	60.1	14.0	167.3	24.9
21	MT 1931	56.7	59.8	14.1	166.0	24.3
13	NS PRESSER CLP	55.5	57.9	14.4	171.2	28.3
24	MT 1939	55.0	59.4	13.9	167.6	24.9
62	WB 9590	53.6	61.3	14.6	166.8	22.3
51	LCS ASCENT	53.6	62.8	13.7	166.3	25.3
9	VIDA	53.1	59.8	13.7	169.1	25.5
48	BZ917-277	52.2	60.5	14.8	169.8	26.1
17	MT 1809	51.9	58.5	15.1	168.3	25.6
2	SY Rockford	51.4	57.6	15.1	171.2	25.2
16	MT SIDNEY	50.5	58.6	15.1	169.4	25.7
63	WB 9719	50.4	61.8	14.6	170.1	24.1
6	REEDER	50.1	59.6	14.8	169.0	24.3
18	MT 1855	49.9	56.6	15.1	170.6	29.3
61	509-2	49.9	60.6	14.0	166.7	22.2
55	MS COBRA	49.8	60.6	15.0	167.5	23.6
64	WB 9516	49.7	61.8	14.3	170.4	25.8
1	SY INGMAR	49.4	60.0	14.7	168.9	24.7
58	SY 611 CL2	49.4	59.7	15.2	168.8	24.0
30	BZ917-252	49.3	55.5	14.9	169.9	23.6
25	MT 1951	48.9	55.1	16.2	168.1	26.8
56	SY McCLOUD	48.9	61.1	15.1	168.4	23.3
12	LANNING	48.7	58.4	14.9	166.3	22.7
60	AP GUNSMOKE CL2	48.6	59.2	15.2	167.8	23.7
59	AP SMITH	48.0	59.1	15.5	169.9	22.2
20	MT 1927	47.6	55.9	16.0	171.4	26.6
52	LNR 1713	47.6	59.2	14.6	166.9	25.5
53	MS RANCHERO	47.5	60.4	13.7	165.3	24.5
50	LCS BUSTER	47.1	56.2	13.9	172.9	26.0
19	MT 1904	46.8	61.2	15.2	171.0	25.1
8	CHOTEAU	46.5	59.5	14.8	169.6	25.3
15	WB 9879 CLP	46.3	60.0	15.1	169.2	25.5
11	EGAN	44.6	57.2	16.4	170.6	27.1
3	WB GUNNISON	43.6	60.4	14.4	168.0	23.0
57	SY LONGMIRE	43.2	59.7	15.0	169.4	22.9
4	CORBIN	42.9	59.7	15.1	167.6	23.5
54	AAC CONCORD	42.3	59.2	15.7	169.0	27.1
7	MCNEAL	41.8	57.3	15.8	171.5	27.6
10	DUCLAIR	41.0	57.9	15.2	167.3	24.4
MEAN (n=64)		49.9	59.5	14.7	168.4	25.1
C.V.		6.2	1.0	3.1	0.5	5.6
Prob. (ENTRY)		<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)		5.3	1.0	0.8	1.4	2.3

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 ADVANCED SPRING WHEAT NURSERY, SIDNEY (IRRI)

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
13	NS PRESSER CLP	<u>77.4</u>	63.6	13.1	178.9	31.0
9	VIDA	<u>75.2</u>	63.5	13.3	175.5	29.0
14	DAGMAR	<u>74.0</u>	63.3	14.8	172.8	31.8
18	MT 1855	<u>73.9</u>	62.4	13.9	177.9	30.2
61	509-2	<u>73.5</u>	63.0	13.0	172.1	28.2
64	WB 9516	<u>73.2</u>	<u>65.6</u>	13.7	174.8	28.2
22	MT 1934	<u>73.1</u>	62.1	14.2	172.0	29.1
6	REEDER	<u>72.9</u>	62.6	14.7	174.4	30.1
63	WB 9719	<u>71.7</u>	<u>65.6</u>	13.8	177.0	26.1
48	BZ917-277	<u>71.0</u>	63.7	14.0	178.9	29.3
51	LCS ASCENT	<u>70.6</u>	64.3	13.4	172.0	29.1
21	MT 1931	<u>68.9</u>	61.1	15.0	172.7	28.5
2	SY Rockford	<u>68.5</u>	62.4	14.0	177.6	29.1
57	SY LONGMIRE	<u>68.4</u>	62.8	14.1	174.2	27.8
17	MT 1809	<u>68.0</u>	62.8	14.1	174.1	28.7
16	MT SIDNEY	<u>67.7</u>	63.1	13.7	176.3	31.6
23	MT 1938	<u>67.2</u>	62.6	14.8	172.0	29.9
59	AP SMITH	66.9	62.6	14.8	177.8	27.3
56	SY McCLOUD	66.8	64.6	15.0	173.3	28.1
24	MT 1939	66.2	61.6	14.1	173.8	28.6
3	WB GUNNISON	65.9	63.8	13.7	173.8	25.6
20	MT 1927	64.9	60.7	15.1	178.6	31.2
30	BZ917-252	64.9	59.0	15.3	177.6	24.7
52	LNR 1713	64.4	63.3	13.6	173.6	29.4
62	WB 9590	64.2	62.4	14.6	172.9	24.0
60	AP GUNSMOKE CL2	64.0	62.3	14.4	173.9	27.7
58	SY 611 CL2	63.9	62.7	14.3	172.8	25.9
15	WB 9879 CLP	63.9	62.7	15.0	174.9	28.5
8	CHOTEAU	63.5	62.4	14.4	175.5	28.2
1	SY INGMAR	63.4	62.8	14.7	175.6	28.9
53	MS RANCHERO	62.8	62.2	14.0	173.1	27.8
10	DUCLAIR	62.6	61.1	14.4	172.6	29.4
19	MT 1904	61.7	64.6	13.2	176.4	30.2
12	LANNING	61.3	60.0	15.3	172.6	27.6
7	MCNEAL	61.1	60.9	15.7	177.9	30.3
55	MS COBRA	60.7	63.5	14.7	173.6	29.6
11	EGAN	60.4	60.3	16.7	177.5	28.8
25	MT 1951	57.9	58.3	<u>16.9</u>	174.7	31.4
50	LCS BUSTER	57.7	60.1	13.4	179.3	24.8
4	CORBIN	56.0	63.3	15.1	172.9	27.1
54	AAC CONCORD	55.1	62.6	15.9	176.6	31.1
MEAN (n=64)		65.3	62.5	14.5	174.4	28.8
C.V.		10.5	1.2	4.8	0.6	5.7
Prob. (ENTRY)		<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)		10.4	0.9	1.1	1.4	2.5

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 ADVANCED SPRING WHEAT NURSERY, FORT BENTON (DRY)

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	SAW FLY CUT (%)
48	BZ917-277	42.9	58.4	15.6	32.0	24.7
20	MT 1927	42.4	55.5	16.2	31.7	52.6
17	MT 1809	41.6	57.6	16.0	30.3	33.7
21	MT 1931	41.1	58.1	15.7	30.3	65.3
22	MT 1934	41.0	58.6	15.6	32.0	31.0
24	MT 1939	40.4	56.8	15.7	29.0	29.7
50	LCS BUSTER	40.0	57.9	13.4	28.7	22.4
19	MT 1904	39.7	57.2	16.1	31.3	26.2
30	BZ917-252	39.7	56.2	16.3	26.7	61.4
14	DAGMAR	39.4	57.9	15.9	31.7	32.8
9	VIDA	39.4	58.1	15.0	30.7	28.4
8	CHOTEAU	39.1	57.6	16.0	31.0	25.0
10	DUCLAIR	39.0	55.2	16.0	31.3	26.6
52	LNR 1713	38.7	59.1	15.4	30.7	49.8
64	WB 9516	38.6	58.4	15.0	31.3	39.1
62	WB 9590	37.8	58.7	15.9	27.0	54.1
13	NS PRESSER CLP	37.7	55.7	15.3	31.0	59.6
54	AAC CONCORD	37.5	56.3	15.8	34.3	19.0
51	LCS ASCENT	37.4	60.2	15.0	31.7	53.0
63	WB 9719	37.3	56.5	15.5	29.0	37.7
3	WB GUNNISON	37.3	55.9	15.7	28.3	16.2
15	WB 9879 CLP	37.1	56.0	16.3	30.3	17.6
23	MT 1938	36.7	57.2	16.1	31.3	42.7
57	SY LONGMIRE	36.3	58.2	16.2	30.7	41.3
6	REEDER	35.4	57.1	16.1	31.7	43.1
12	LANNING	35.3	56.1	16.4	28.3	68.6
16	MT SIDNEY	35.1	54.8	16.1	31.3	62.2
60	AP GUNSMOKE CL2	35.0	57.5	17.4	28.0	61.4
18	MT 1855	35.0	56.1	16.5	31.0	31.4
4	CORBIN	34.8	57.4	15.9	31.0	29.4
25	MT 1951	34.8	53.6	17.0	30.3	59.5
59	AP SMITH	34.7	55.7	16.3	27.3	65.2
7	MCNEAL	34.5	55.2	15.6	32.0	82.7
53	MS RANCHERO	33.8	55.7	15.3	29.7	55.7
1	SY INGMAR	33.7	55.3	16.5	29.0	52.1
11	EGAN	32.8	53.6	16.6	31.3	75.9
56	SY McCLOUD	32.7	52.4	16.6	29.0	52.6
55	MS COBRA	32.7	56.8	16.0	30.3	74.9
58	SY 611 CL2	30.8	53.3	16.3	28.0	60.1
2	SY Rockford	30.7	51.8	16.3	29.3	68.8
61	509-2	30.5	52.3	16.2	29.3	54.9
MEAN (n=64)		37.0	56.5	15.9	30.5	46.2
C.V.		5.7	4.3	1.8	4.9	18.5
Prob. (ENTRY)		<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)		3.7	4.2	0.5	2.4	14.6

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 ADVANCED SPRING WHEAT NURSERY, HINGHAM (DRY)

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
9	VIDA	28.7	59.1	13.1	18.3
18	MT 1855	26.3	59.1	14.4	19.7
17	MT 1809	24.7	58.6	15.0	18.0
19	MT 1904	24.0	60.5	14.1	20.3
54	AAC CONCORD	23.9	58.3	14.6	21.7
51	LCS ASCENT	23.8	60.7	15.3	18.0
4	CORBIN	23.1	59.6	14.8	19.7
3	WB GUNNISON	23.1	60.0	14.7	18.3
52	LNR 1713	23.0	59.9	15.2	19.3
50	LCS BUSTER	22.7	56.9	12.3	18.3
6	REEDER	22.5	59.5	14.8	17.7
13	NS PRESSER CLP	22.5	58.7	14.1	18.0
22	MT 1934	22.1	58.4	14.6	17.7
61	509-2	21.8	59.9	14.7	18.0
63	WB 9719	21.8	61.1	15.1	18.0
57	SY LONGMIRE	21.8	60.2	15.2	19.0
30	BZ917-252	21.7	56.4	14.5	17.0
10	DUCLAIR	21.6	58.2	15.0	17.7
15	WB 9879 CLP	21.5	58.4	15.7	19.3
58	SY 611 CL2	21.3	61.3	15.9	18.7
24	MT 1939	21.2	59.0	14.4	17.3
53	MS RANCHERO	21.0	58.9	14.8	17.3
14	DAGMAR	20.4	59.2	16.0	19.7
64	WB 9516	20.3	59.9	15.3	19.0
16	MT SIDNEY	20.1	59.3	14.6	18.3
20	MT 1927	19.8	57.2	15.3	18.7
1	SY INGMAR	19.6	60.1	15.8	17.0
8	CHOTEAU	18.9	58.3	15.3	18.0
7	MCNEAL	18.7	58.2	16.0	19.7
55	MS COBRA	18.7	59.7	15.4	16.3
23	MT 1938	18.6	58.4	16.0	18.0
56	SY McCLOUD	18.4	60.4	16.7	19.7
21	MT 1931	18.0	58.7	15.5	17.7
48	BZ917-277	17.6	59.9	15.4	19.7
2	SY Rockford	17.0	58.2	15.0	18.3
62	WB 9590	16.8	60.2	15.9	17.3
11	EGAN	16.7	56.6	17.1	19.0
12	LANNING	15.8	58.7	16.8	16.3
25	MT 1951	15.8	56.5	17.4	17.7
60	AP GUNSMOKE CL2	14.9	58.7	16.9	17.3
59	AP SMITH	13.6	60.3	16.3	15.0
MEAN (n=64)		20.2	59.0	15.2	18.2
C.V.		16.0	0.8	3.3	6.9
Prob. (ENTRY)		<0.05	<0.001	<0.001	<0.001
LSD(0.05)		5.5	0.8	0.9	2.0

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 ADVANCED SPRING WHEAT NURSERY, RUDYARD (DRY)

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	SAW FLY CUT (%)
13	NS PRESSER CLP	33.3	56.9	15.7	26.7	17.8
64	WB 9516	32.3	58.7	15.5	23.4	8.0
53	MS RANCHERO	32.2	57.0	15.0	24.5	17.6
51	LCS ASCENT	32.1	58.1	16.0	24.1	8.8
16	MT SIDNEY	31.5	57.8	16.2	24.4	18.5
14	DAGMAR	30.9	57.6	16.3	25.5	1.9
23	MT 1938	30.5	56.2	16.0	25.4	17.5
17	MT 1809	30.5	56.5	17.0	24.0	16.6
52	LNR 1713	30.2	55.7	16.3	22.9	12.1
60	AP GUNSMOKE CL2	29.8	57.1	16.6	24.3	7.8
59	AP SMITH	29.8	57.1	16.9	21.9	7.1
48	BZ917-277	29.4	58.8	15.6	23.8	12.3
12	LANNING	29.4	55.9	16.7	21.3	16.9
62	WB 9590	28.9	57.0	16.9	21.3	3.1
54	AAC CONCORD	28.8	56.1	16.4	25.0	2.6
22	MT 1934	28.4	57.8	15.2	24.3	15.6
25	MT 1951	28.1	54.2	17.2	23.1	14.7
24	MT 1939	27.9	57.2	15.3	24.7	16.1
55	MS COBRA	27.5	57.0	16.5	24.2	18.4
15	WB 9879 CLP	27.2	55.9	16.3	21.8	3.8
7	MCNEAL	27.0	56.9	16.2	22.9	22.0
63	WB 9719	26.9	58.9	16.1	23.1	9.3
30	BZ917-252	26.7	55.1	15.9	24.3	16.7
9	VIDA	26.1	56.9	15.9	24.1	18.3
3	WB GUNNISON	25.7	58.4	15.7	25.1	0.7
4	CORBIN	25.7	58.2	16.7	23.6	0.9
6	REEDER	25.4	56.8	16.6	23.2	15.8
61	509-2	25.4	56.8	16.9	22.6	21.6
21	MT 1931	25.3	56.6	15.9	22.6	14.8
20	MT 1927	25.2	54.8	16.3	23.7	18.3
8	CHOTEAU	24.7	57.1	16.1	23.1	8.8
11	EGAN	24.3	56.1	16.9	23.3	16.2
56	SY McCLOUD	24.1	58.5	17.3	22.2	5.1
1	SY INGMAR	23.4	58.2	17.0	23.9	7.1
50	LCS BUSTER	23.2	55.0	15.1	21.5	5.4
2	SY Rockford	23.1	55.6	16.9	23.0	17.2
58	SY 611 CL2	22.9	59.4	16.2	21.6	7.0
19	MT 1904	22.3	59.3	16.5	21.8	3.7
57	SY LONGMIRE	22.2	58.9	17.3	22.6	8.0
18	MT 1855	20.9	57.7	16.4	23.5	10.3
10	DUCLAIR	19.8	56.1	16.4	19.1	6.5
MEAN (n=64)		26.9	57.0	16.3	23.5	12.4
C.V.		7.2	1.6	2.9	4.5	37.3
Prob. (ENTRY)		<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)		3.3	1.6	0.8	1.7	7.9

bold : highest or earliest value within a column

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2021 ADVANCED SPRING WHEAT NURSERY, WILLISTON (DRY)

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
17	MT 1809	26.3	58.8	16.4	182.0	17.7
14	DAGMAR	24.9	60.2	16.4	178.5	19.3
13	NS PRESSER CLP	24.4	58.8	14.6	184.5	19.3
9	VIDA	23.8	59.9	16.1	183.2	18.3
2	SY ROCKFORD	23.7	58.5	15.2	182.9	18.0
51	LCS ASCENT	23.7	62.2	14.9	179.6	17.6
16	MT SIDNEY	23.7	60.3	16.5	181.6	18.4
59	AP SMITH	22.7	60.1	15.8	183.0	16.2
64	WB 9516	22.3	61.9	15.5	182.6	19.4
20	MT 1927	21.4	57.7	17.1	182.8	18.1
60	AP GUNSMOKE CL2	21.2	59.3	16.5	180.7	19.1
62	WB 9590	21.1	60.8	16.2	179.9	17.6
56	SY McCLOUD	21.0	62.5	16.8	181.5	17.8
7	MCNEAL	20.8	57.3	16.3	182.6	20.1
19	MT 1904	20.7	60.5	16.4	182.9	17.3
15	WB 9879 CLP	20.5	60.1	16.7	182.9	17.3
57	SY LONGMIRE	20.4	61.0	16.0	182.2	19.4
63	WB 9719	20.1	62.0	16.0	183.2	17.2
48	BZ917-277	20.1	60.2	16.4	184.0	20.3
58	SY 611 CL2	20.0	61.2	16.0	181.4	17.9
1	SY INGMAR	19.9	60.8	16.8	181.1	17.5
52	LNR 1713	19.8	60.5	14.9	181.4	19.1
24	MT 1939	19.3	59.0	15.7	181.6	18.0
6	REEDER	19.3	59.4	16.3	183.0	15.8
23	MT 1938	19.3	59.2	15.8	180.9	18.1
12	LANNING	19.2	58.6	16.0	183.8	17.9
18	MT 1855	19.0	59.5	16.7	182.7	18.7
3	WB GUNNISON	18.8	60.5	15.8	182.1	18.5
61	509-2	18.6	60.0	15.9	178.4	18.2
10	DUCLAIR	18.4	58.3	16.8	180.1	18.7
25	MT 1951	18.3	55.3	17.5	183.3	17.7
4	CORBIN	18.0	60.1	16.9	179.3	17.8
53	MS RANCHERO	17.7	58.9	15.8	183.3	18.6
55	MS COBRA	17.5	60.7	16.5	180.7	18.2
21	MT 1931	17.2	58.6	15.7	182.0	17.5
54	AAC CONCORD	17.2	58.2	16.3	183.8	18.7
11	EGAN	17.1	56.6	17.9	183.5	18.7
22	MT 1934	16.5	58.5	16.0	182.0	17.2
8	CHOTEAU	15.3	59.5	17.8	181.7	17.2
50	LCS BUSTER	15.0	57.7	16.6	184.7	16.8
30	BZ917-252	14.4	54.4	17.6	183.4	15.6
MEAN (n=64)		19.8	59.6	16.3	181.8	18.2
C.V.		18.7	1 rep	1 rep	0.4	5.9
Prob. (ENTRY)		<0.05	1 rep	1 rep	<0.001	<0.001
LSD(0.05)		6.3	1 rep	1 rep	1.2	1.8

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

**2021 OVERALL AGRONOMIC SUMMARY FOR SPRING WHEAT OFF-STATION NURSERY GROWN UNDER
RAIN FED CONDITION (12 LOCATIONS) ACROSS MONTANA**

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	GRAIN PROTEIN (%)	HEADING DATE (JULIAN)	HEIGHT (INCHES)	SAWFLY CUT (%)	FALLING NO.
23	MT 1938	29.9	56.8	16.5	181.0	21.1	13.0	371
22	MT 1934	29.4	56.9	16.4	181.2	21.4	17.7	367
21	MT 1931	29.4	56.6	16.2	181.0	20.9	46.7	335
24	MT 1939	29.3	56.7	16.2	181.5	21.1	18.4	367
12	DAGMAR	28.3	58.1	16.7	181.6	21.7	5.8	401
20	MT 1927	28.2	54.9	17.3	182.9	21.2	5.3	370
17	MT 1809	28.2	56.4	17.0	181.8	21.1	16.9	407
7	VIDA	28.0	57.4	16.1	182.6	21.2	14.1	372
11	NS PRESSER CLP	27.3	56.4	16.1	183.1	22.1	13.9	397
16	MT SIDNEY	26.8	57.4	16.6	181.9	22.3	16.8	414
10	LANNING	26.6	56.4	16.8	181.0	20.6	33.9	383
14	CHOTEAU	26.2	57.1	16.8	182.0	20.9	5.4	393
13	WB9879CLP	25.9	57.1	16.9	182.2	20.1	2.9	433
19	MT 1904	25.6	58.8	16.7	182.4	20.9	1.8	376
4	WB GUNNISON	25.5	57.3	16.2	181.6	20.1	0.2	393
6	REEDER	25.2	57.4	16.6	182.6	21.2	26.8	375
18	MT 1855	25.2	57.5	16.8	183.1	22.0	12.4	431
9	EGAN	25.0	55.5	17.7	182.9	21.3	32.2	462
8	DUCLAIR	25.0	55.8	16.8	181.2	21.8	5.6	357
15	ALUM	24.9	57.4	16.7	182.2	20.9	13.9	402
5	CORBIN	24.6	56.6	16.8	181.2	21.5	8.2	376
1	BRENNAN	24.5	57.4	16.9	181.2	20.2	25.6	418
2	SY SOREN	24.2	57.1	17.3	182.0	20.4	23.3	443
25	MT 1951	23.9	54.1	17.5	181.8	21.3	22.3	394
3	SY INGMAR	23.3	57.3	17.2	182.1	20.3	23.3	412
MEAN		26.4	56.8	16.7	181.9	21.1	16.3	394
C.V.		10.5	2.8	2.6	0.4	5.4	58.8	5.0
PROBABILITY (LINE)		<0.001	<0.001	<0.001	ns	<0.001	<0.001	<0.001
LSD (0.05)		2.2	1.3	0.3	-	0.9	15.7	32
No. of environments		12	12	12	2	12	3	3

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

**2021 OVERALL AGRONOMIC SUMMARY FOR SPRING WHEAT OFF-STATION NURSERY GROWN UNDER IRRI / HIGH
RAINFALL CONDITION (5 LOCATIONS INCLUDING KALISPELL) ACROSS MONTANA**

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	GRAIN PROTEIN (%)	HEADING DATE (JULIAN)	HEIGHT (INCHES)
13	WB9879CLP	<u>86.9</u>	60.2	14.5	171.1	32.6
23	MT 1938	85.6	59.6	14.7	169.3	31.2
17	MT 1809	83.6	58.9	15.1	171.0	31.5
22	MT 1934	83.2	59.5	14.7	168.7	32.2
20	MT 1927	82.8	58.2	15.0	173.2	31.6
18	MT 1855	82.7	59.8	14.7	173.3	<u>33.6</u>
14	CHOTEAU	82.5	59.8	14.6	170.4	32.2
12	DAGMAR	82.4	60.2	15.0	168.8	33.2
19	MT 1904	81.9	60.9	14.8	171.5	31.9
24	MT 1939	81.7	59.3	14.2	169.9	31.9
7	VIDA	81.2	59.1	14.4	171.6	32.2
16	MT SIDNEY	80.8	59.6	14.3	170.0	33.5
3	SY INGMAR	80.0	60.2	14.6	171.7	31.3
25	MT 1951	79.7	58.1	15.7	170.7	32.8
10	LANNING	79.4	59.7	15.1	168.1	31.3
4	WB GUNNISON	79.0	60.7	14.1	171.8	30.4
21	MT 1931	78.7	59.9	14.8	<u>168.0</u>	31.5
11	NS PRESSER CLP	77.5	59.3	14.7	174.0	32.2
8	DUCLAIR	77.4	58.9	14.6	169.0	31.6
2	SY SOREN	77.1	60.1	15.0	170.9	29.8
5	CORBIN	77.0	60.1	14.6	169.3	30.8
6	REEDER	77.0	60.6	15.0	171.5	33.2
15	ALUM	76.7	<u>61.1</u>	14.3	171.5	30.9
9	EGAN	76.7	58.9	<u>16.3</u>	172.9	31.7
1	BRENNAN	76.0	60.9	14.9	169.5	29.8
MEAN		80.3	59.7	14.8	170.7	31.8
C.V.		8.9	1.5	3.2	0.5	4.1
PROBABILITY (LINE)		ns	<0.001	<0.001	<0.001	<0.001
LSD (0.05)		-	1.1	0.6	1.6	1.6
No. of environments		5	5	5	2	5

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OVERALL AGRONOMIC SUMMARY FOR SPRING WHEAT OFF-STATION NURSERY GROWN IN 17 ENVIRONMENTS, INCLUDING 13 DRYLAND AND 4 IRRIGATED ENVIRONMENTS ACROSS MONTANA

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	GRAIN PROTEIN (%)	HEADING DATE (JULIAN)	HEIGHT (INCHES)	SAWFLY CUT (%)	FALLING NO.
23	MT 1938	<u>46.3</u>	57.6	15.9	175.1	24.1	13.0	371
22	MT 1934	45.2	57.7	15.9	174.9	24.5	17.7	367
24	MT 1939	44.7	57.5	15.6	175.7	24.3	18.4	367
17	MT 1809	44.5	57.1	16.4	176.4	24.1	16.9	407
20	MT 1927	44.3	55.9	16.6	178.0	24.3	5.3	370
12	DAGMAR	44.3	58.7	16.2	175.2	25.1	5.8	401
21	MT 1931	43.9	57.6	15.8	<u>174.5</u>	24.0	46.7	335
13	WB9879CLP	43.8	58.0	16.2	176.6	23.8	2.9	433
7	VIDA	43.7	57.9	15.6	177.1	24.5	14.1	372
14	CHOTEAU	42.7	57.9	16.2	176.2	24.2	5.4	393
16	MT SIDNEY	42.7	58.1	15.9	176.0	<u>25.5</u>	16.8	414
10	LANNING	42.2	57.4	16.3	<u>174.5</u>	23.8	33.9	383
19	MT 1904	42.2	<u>59.4</u>	16.2	176.9	24.1	1.8	376
18	MT 1855	42.1	58.2	16.2	178.2	25.4	12.4	431
11	NS PRESSER CLP	42.0	57.2	15.7	178.6	25.1	13.9	397
4	WB GUNNISON	41.2	58.3	15.6	176.7	23.1	<u>0.2</u>	393
6	REEDER	40.5	58.4	16.1	177.0	24.7	26.8	375
8	DUCLAIR	40.4	56.7	16.1	175.1	24.7	5.6	357
25	MT 1951	40.3	55.3	17.0	176.2	24.7	22.3	394
9	EGAN	40.2	56.5	<u>17.3</u>	177.9	24.3	32.2	<u>462</u>
15	ALUM	40.2	58.5	16.0	176.8	23.8	13.9	402
5	CORBIN	40.0	57.6	16.2	175.3	24.2	8.2	376
3	SY INGMAR	40.0	58.1	16.4	176.9	23.5	23.3	412
2	SY SOREN	39.7	58.0	16.6	176.5	23.2	23.3	443
1	BRENNAN	39.7	58.4	16.3	175.4	23.0	25.6	418
MEAN		42.3	57.7	16.2	176.3	24.2	16.3	394
C.V.		10.4	2.5	2.8	0.5	5.0	58.8	5.0
PROBABILITY (LINE)		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD (0.05)		3.0	1.0	0.3	1.2	0.8	15.7	32
No. of environments		17	17	17	4	17	3	3

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OFF-STATION : BOZEMAN (IRRIGATION) : 9901

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)	LODGING (0-9)
13	WB9879CLP	WB9879CLP	<u>117.2</u>	59.0	13.6	178.0	35.7	1
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	111.5	59.5	14.8	174.6	34.7	5
8	PI 660981	DUCLAIR	107.6	58.4	14.2	174.5	34.6	2
14	PI 633974	CHOTEAU	107.4	59.0	13.9	176.1	35.5	3
12	PI 690450	DAGMAR	107.2	59.3	14.9	174.6	35.9	5
3	AGRIPR141	SY INGMAR	103.6	60.0	14.7	176.6	34.0	0
20	MT 1927	MT1203/MT1234	102.9	58.7	15.0	179.4	35.6	3
18	MT 1855	MT1053/MO8/3-4	102.6	59.0	14.3	179.6	38.5	2
22	MT 1934	VIDA/MT1319	102.3	58.4	15.0	174.0	34.1	3
25	MT 1951	LANNING/EGAN	101.4	58.6	15.8	176.8	36.5	1
4	BZ 92413R	WB GUNNISON	96.4	60.9	13.3	178.0	32.1	0
10	PI 676978	LANNING	95.8	60.2	14.5	<u>173.8</u>	33.8	1
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	94.6	59.9	14.2	175.1	34.8	6
2	AGRIPR 14	SY SOREN	92.7	59.1	14.7	176.4	31.9	2
17	MT 1809	VIDA/MO 09/3-4	92.6	57.0	15.6	177.1	35.0	5
15	WSCIA	ALUM	88.6	<u>61.0</u>	13.8	177.8	34.9	3
9	PI 671855	EGAN	88.1	58.1	<u>17.7</u>	179.1	35.8	0
5	BZ 996434	CORBIN	87.6	59.4	14.1	174.2	34.8	5
7	PI 642366	VIDA	85.6	56.1	14.6	177.2	35.7	7
1	AGRIPR 10	BRENNAN	83.4	59.8	14.3	174.4	32.1	2
21	MT 1931	LANNING/MT1319	83.2	59.3	15.3	<u>173.8</u>	35.9	5
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	80.6	58.3	15.6	177.7	35.6	7
11	PI 679964	NS PRESSER CLP	79.6	57.9	15.4	180.9	35.5	6
16	MT 1716	MT SIDNEY	79.0	57.8	14.2	175.7	37.8	6
6	ND 695	REEDER	78.2	59.2	15.2	177.4	<u>38.9</u>	2
MEAN			94.8	59.0	14.7	176.5	35.2	3
C.V.			10.6	1 rep	1 rep	0.5	3.1	58.5
PROBABILITY (ENTRY)			<0.001	1 rep	1 rep	<0.001	<0.001	<0.001
LSD(0.05)			16.1	1 rep	1 rep	1.3	1.5	3

bold : highest or earliest value within a column

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2021 OFF-STATION : KALISPELL (HIGH RAINFALL) : 9905

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	KERNEL WEIGHT (g)	LODGING (%)
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	63.3	50.2	16.7	26.0	26.8	42
7	PI 642366	VIDA	62.8	52.4	16.4	28.6	26.3	20
16	MT 1716	MT SIDNEY	62.4	53.1	16.5	28.0	28.5	80
22	MT 1934	VIDA/MT1319	62.2	51.1	16.6	26.8	24.6	15
6	ND 695	REEDER	60.9	54.1	16.7	28.1	27.8	30
21	MT 1931	LANNING/MT1319	60.2	51.6	16.4	29.2	29.8	62
3	AGRIPR141	SY INGMAR	59.6	53.4	16.4	25.7	23.9	0
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	59.2	51.7	16.3	25.3	26.0	15
1	AGRIPR 10	BRENNAN	57.6	54.1	16.3	24.9	23.9	0
25	MT 1951	LANNING/EGAN	57.6	50.6	17.8	29.5	27.5	0
20	MT 1927	MT1203/MT1234	57.3	49.4	17.4	29.1	26.5	23
9	PI 671855	EGAN	56.7	52.8	17.5	26.9	26.1	3
14	PI 633974	CHOTEAU	55.8	52.2	16.9	26.7	27.6	37
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	55.2	55.7	16.8	28.1	25.2	7
17	MT 1809	VIDA/M0 09/3-4	54.9	51.5	16.8	27.1	24.7	48
18	MT 1855	MT1053/MO8/3-4	54.8	52.9	16.4	28.2	27.9	0
10	PI 676978	LANNING	54.0	50.8	16.9	27.5	26.7	0
11	PI 679964	NS PRESSER CLP	53.3	52.3	17.0	29.1	28.1	52
2	AGRIPR 14	SY SOREN	53.1	52.2	17.0	25.1	22.3	0
12	PI 690450	DAGMAR	52.8	52.5	16.8	29.0	26.9	0
5	BZ 996434	CORBIN	52.1	52.6	16.6	25.6	27.4	97
4	BZ 92413R	WB GUNNISON	52.0	53.6	16.3	26.0	30.7	5
13	WB9879CLP	WB9879CLP	50.8	52.5	17.0	27.8	24.8	5
15	WSCIA	ALUM	49.4	55.1	17.0	27.8	31.1	7
8	PI 660981	DUCLAIR	47.4	51.2	17.3	26.1	25.7	23
MEAN			56.2	52.4	16.8	27.3	26.7	23
C.V.			5.9	1.9	2.2	5.3	7.0	105.9
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			5.3	1.1	0.4	1.9	2.2	39

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2021 OFF-STATION : HUNTLEY (DRY) : 9908

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	54.9	57.3	16.2	30.4
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	54.7	56.3	16.5	31.2
7	PI 642366	VIDA	50.5	56.2	16.1	30.7
12	PI 690450	DAGMAR	50.0	57.6	17.3	31.7
22	MT 1934	VIDA/MT1319	48.3	56.9	16.1	31.4
21	MT 1931	LANNING/MT1319	47.5	55.9	16.5	30.4
8	PI 660981	DUCLAIR	47.2	55.4	17.0	33.1
20	MT 1927	MT1203/MT1234	47.2	54.4	17.9	29.9
14	PI 633974	CHOTEAU	46.7	56.2	16.7	30.6
17	MT 1809	VIDA/M0 09/3-4	45.6	55.8	17.0	29.0
1	AGRIPR 10	BRENNAN	45.4	57.4	17.1	29.7
4	BZ 92413R	WB GUNNISON	45.1	55.4	17.4	25.5
11	PI 679964	NS PRESSER CLP	45.1	55.1	16.2	30.6
16	MT 1716	MT SIDNEY	45.1	56.9	16.3	32.3
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	44.7	58.7	16.6	29.1
3	AGRIPR141	SY INGMAR	44.6	54.4	17.7	29.3
13	WB9879CLP	WB9879CLP	42.4	56.0	17.1	26.4
25	MT 1951	LANNING/EGAN	42.4	53.8	18.0	32.6
6	ND 695	REEDER	41.9	55.7	16.7	29.9
2	AGRIPR 14	SY SOREN	41.5	54.1	18.2	27.6
10	PI 676978	LANNING	41.2	55.4	17.0	28.9
9	PI 671855	EGAN	41.1	54.3	18.9	29.4
5	BZ 996434	CORBIN	38.4	56.2	17.4	30.5
15	WSCIA	ALUM	38.2	56.0	17.4	27.3
18	MT 1855	MT1053/MO8/3-4	37.4	56.2	16.0	28.5
MEAN			45.1	55.9	17.0	29.8
C.V.			6.4	1.6	2.2	3.7
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001
LSD(0.05)			5.2	1.6	0.7	2.0

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bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OFF-STATION : HUNTLEY (IRRIGATION) : 9909

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	<u>107.3</u>	63.7	15.0	165.2	34.1
16	MT 1716	MT SIDNEY	106.2	63.7	14.4	164.3	38.1
13	WB9879CLP	WB9879CLP	103.8	64.1	14.5	164.2	38.5
14	PI 633974	CHOTEAU	103.6	63.4	14.6	164.6	<u>39.2</u>
6	ND 695	REEDER	98.4	64.1	14.9	165.6	35.7
4	BZ 92413R	WB GUNNISON	98.1	63.3	13.8	165.5	34.4
7	PI 642366	VIDA	97.8	61.9	14.6	165.9	34.9
20	MT 1927	MT1203/MT1234	97.6	61.5	14.9	167.0	33.9
17	MT 1809	VIDA/M0 09/3-4	97.2	61.4	15.6	164.8	35.1
25	MT 1951	LANNING/EGAN	96.3	62.2	15.2	164.6	36.4
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	95.3	63.5	15.0	164.0	35.2
3	AGRIPR141	SY INGMAR	93.1	63.1	14.4	166.8	37.3
1	AGRIPR 10	BRENNAN	93.0	<u>64.8</u>	14.4	164.6	32.1
9	PI 671855	EGAN	92.3	62.3	15.8	166.6	34.0
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	92.1	62.0	14.0	164.6	38.2
15	WSCIA	ALUM	91.3	63.8	14.0	165.1	32.5
11	PI 679964	NS PRESSER CLP	91.0	62.1	14.5	167.1	34.2
12	PI 690450	DAGMAR	89.8	63.9	15.1	163.0	37.1
8	PI 660981	DUCLAIR	89.4	62.1	14.5	163.5	38.2
10	PI 676978	LANNING	89.2	63.3	15.2	162.4	35.9
18	MT 1855	MT1053/MO8/3-4	89.0	62.2	15.5	167.0	34.5
5	BZ 996434	CORBIN	86.4	63.5	14.2	164.4	34.7
22	MT 1934	VIDA/MT1319	84.9	63.0	14.5	163.4	38.0
2	AGRIPR 14	SY SOREN	83.9	62.9	15.2	165.4	34.2
21	MT 1931	LANNING/MT1319	81.1	63.7	14.5	<u>162.2</u>	32.7
MEAN			93.9	63.0	14.7	164.9	35.6
C.V.			9.8	1.1	3.0	0.3	4.7
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			16.8	1.2	0.8	0.9	3.9

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2021 OFF-STATION : TURNER (DRY) : 9951

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	SAWFLY CUT (%)	FALLING NO.
11	PI 679964	NS PRESSER CLP	23.9	58.1	15.0	17.5	5.0	378
22	MT 1934	VIDA/MT1319	23.4	56.6	15.3	17.8	1.0	374
21	MT 1931	LANNING/MT1319	21.5	55.2	15.1	17.8	18.3	315
12	PI 690450	DAGMAR	21.3	58.3	16.3	17.3	1.7	396
20	MT 1927	MT1203/MT1234	20.5	55.2	16.6	16.8	0.3	335
17	MT 1809	VIDA/M0 09/3-4	20.2	55.4	16.7	15.9	2.3	364
7	PI 642366	VIDA	19.8	57.7	15.3	15.5	0.7	347
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	19.7	55.0	15.8	17.2	0.7	374
13	WB9879CLP	WB9879CLP	19.2	57.0	16.2	17.0	1.0	428
10	PI 676978	LANNING	19.1	56.6	15.8	16.7	10.0	360
6	ND 695	REEDER	18.0	56.8	16.1	16.7	3.7	367
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	17.8	55.2	15.8	17.1	3.7	338
18	MT 1855	MT1053/MO8/3-4	17.6	57.9	16.4	15.6	3.7	386
25	MT 1951	LANNING/EGAN	17.5	53.1	17.3	18.2	7.0	385
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	17.3	58.8	16.1	16.9	0.7	316
3	AGRIPR141	SY INGMAR	17.2	58.3	16.5	16.0	5.0	395
5	BZ 996434	CORBIN	17.1	57.7	16.4	16.8	2.3	381
9	PI 671855	EGAN	17.1	56.1	17.5	17.0	10.0	433
16	MT 1716	MT SIDNEY	17.1	58.2	16.5	18.0	2.0	353
14	PI 633974	CHOTEAU	17.1	55.9	16.3	17.3	0.7	360
2	AGRIPR 14	SY SOREN	16.0	56.8	17.2	16.1	6.7	414
8	PI 660981	DUCLAIR	16.0	53.7	16.4	17.9	1.0	325
15	WSCIA	ALUM	15.4	57.6	16.6	16.6	6.7	370
4	BZ 92413R	WB GUNNISON	15.3	56.5	15.6	17.2	0.7	333
1	AGRIPR 10	BRENNAN	14.0	56.7	16.6	16.3	11.7	392
MEAN			18.4	56.6	16.2	16.9	4.3	369
C.V.			9.6	1.7	1.9	5.0	57.7	4.7
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.01	<0.001	<0.001
LSD(0.05)			2.8	1.5	0.4	1.3	4.3	27

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bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OFF-STATION : CHESTER (DRY) : 9953

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	SAWFLY CUT (%)
12	PI 690450	DAGMAR	<u>26.5</u>	55.2	16.4	23.6	4.0
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	26.4	53.4	15.7	21.1	11.7
13	WB9879CLP	WB9879CLP	26.1	54.1	16.6	19.5	5.3
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	26.0	56.6	16.2	22.9	3.7
4	BZ 92413R	WB GUNNISON	25.7	55.2	15.7	20.7	<u>0.0</u>
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	24.6	52.7	15.7	22.1	28.3
15	WSCIA	ALUM	24.4	<u>57.7</u>	16.2	22.0	11.7
18	MT 1855	MT1053/MO8/3-4	24.3	55.1	15.9	23.2	23.3
5	BZ 996434	CORBIN	24.1	55.1	16.2	24.2	10.3
7	PI 642366	VIDA	23.6	54.7	15.6	22.9	20.0
21	MT 1931	LANNING/MT1319	23.4	51.7	16.0	19.9	50.0
11	PI 679964	NS PRESSER CLP	23.3	54.4	15.5	23.7	11.7
22	MT 1934	VIDA/MT1319	23.1	52.4	15.7	21.7	8.7
20	MT 1927	MT1203/MT1234	23.0	53.4	<u>17.2</u>	21.3	2.3
1	AGRIPR 10	BRENNAN	22.7	55.9	16.4	19.1	18.3
10	PI 676978	LANNING	22.7	52.8	16.0	22.0	25.0
17	MT 1809	VIDA/MO 09/3-4	22.6	53.6	16.7	23.8	21.7
9	PI 671855	EGAN	22.2	52.8	17.0	22.5	41.7
8	PI 660981	DUCLAIR	22.1	52.9	16.3	22.1	3.7
14	PI 633974	CHOTEAU	22.0	53.8	16.6	21.6	10.3
25	MT 1951	LANNING/EGAN	21.1	50.8	17.1	20.6	20.0
16	MT 1716	MT SIDNEY	20.1	54.2	15.9	<u>24.3</u>	25.0
2	AGRIPR 14	SY SOREN	20.1	54.1	16.6	21.8	20.0
6	ND 695	REEDER	19.5	54.1	16.2	21.9	25.0
3	AGRIPR141	SY INGMAR	19.4	54.6	16.9	21.0	25.0
MEAN			23.2	54.1	16.2	22.0	17.1
C.V.			6.7	1.1	1.8	5.4	46.7
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			2.0	1.0	0.5	1.6	13.1

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OFF-STATION : LORING (DRY) : 9955

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	FALLING NO.
21	MT 1931	LANNING/MT1319	38.4	56.9	15.7	17.4	365
22	MT 1934	VIDA/MT1319	37.4	57.6	15.4	18.4	367
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	37.0	57.5	15.7	20.9	375
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	36.9	57.5	15.5	19.5	385
10	PI 676978	LANNING	36.3	56.5	16.1	21.3	399
7	PI 642366	VIDA	35.2	58.8	15.0	21.0	370
17	MT 1809	VIDA/M0 09/3-4	34.8	57.1	16.5	20.0	419
16	MT 1716	MT SIDNEY	33.8	59.6	15.9	19.6	451
13	WB9879CLP	WB9879CLP	33.7	57.9	16.3	21.4	446
20	MT 1927	MT1203/MT1234	33.6	56.9	17.0	20.7	393
12	PI 690450	DAGMAR	32.9	59.0	16.1	22.1	419
9	PI 671855	EGAN	32.5	57.3	17.5	19.8	493
14	PI 633974	CHOTEAU	32.4	58.4	16.0	20.1	419
11	PI 679964	NS PRESSER CLP	32.1	57.9	15.1	20.6	395
25	MT 1951	LANNING/EGAN	31.8	55.0	17.2	20.3	401
2	AGRIPR 14	SY SOREN	31.4	58.2	16.6	19.4	446
5	BZ 996434	CORBIN	31.3	59.3	16.2	19.3	389
15	WSCIA	ALUM	30.9	60.4	15.8	20.4	424
6	ND 695	REEDER	30.1	58.5	16.3	19.9	378
8	PI 660981	DUCLAIR	30.0	57.3	16.2	20.2	373
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	29.8	60.4	15.9	20.9	398
18	MT 1855	MT1053/MO8/3-4	29.3	58.9	16.0	20.9	437
4	BZ 92413R	WB GUNNISON	28.9	59.1	15.4	19.1	427
1	AGRIPR 10	BRENNAN	28.9	59.4	16.4	17.7	429
3	AGRIPR141	SY INGMAR	28.5	58.3	16.6	19.9	434
MEAN			32.7	58.2	16.1	20.0	409
C.V.			5.2	0.8	1.3	4.4	3.4
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			2.9	0.6	0.4	1.5	24

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OFF-STATION : LOMA (DRY) : 9957

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	SAWFLY CUT (%)	FALLING NO.
5	BZ 996434	CORBIN	19.4	56.0	16.0	23.6	12.0	357
4	BZ 92413R	WB GUNNISON	17.7	56.4	15.3	20.3	0.0	420
12	PI 690450	DAGMAR	16.9	56.1	15.6	21.7	11.7	387
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	16.6	56.0	15.1	21.7	26.7	364
13	WB9879CLP	WB9879CLP	16.3	54.7	16.1	21.2	2.3	426
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	16.2	55.2	14.8	21.8	23.3	379
8	PI 660981	DUCLAIR	16.0	53.4	16.5	23.4	12.0	374
15	WSCIA	ALUM	15.5	56.1	15.6	21.6	23.3	412
7	PI 642366	VIDA	14.9	54.3	15.2	22.6	21.7	400
17	MT 1809	VIDA/M0 09/3-4	14.8	53.0	16.4	22.0	26.7	439
2	AGRIPR 14	SY SOREN	14.7	54.7	16.1	22.4	43.3	468
1	AGRIPR 10	BRENNAN	14.7	57.3	15.6	21.7	46.7	433
20	MT 1927	MT1203/MT1234	14.6	51.4	17.2	22.8	13.3	381
14	PI 633974	CHOTEAU	14.4	54.5	15.6	21.5	5.3	399
22	MT 1934	VIDA/MT1319	14.3	54.9	15.3	23.5	43.3	359
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	13.9	56.3	16.0	19.3	1.0	414
16	MT 1716	MT SIDNEY	13.5	55.1	15.4	22.5	23.3	437
21	MT 1931	LANNING/MT1319	13.4	55.7	14.7	21.9	71.7	324
25	MT 1951	LANNING/EGAN	13.1	52.9	16.4	21.8	40.0	395
9	PI 671855	EGAN	12.8	52.6	16.4	18.7	45.0	459
11	PI 679964	NS PRESSER CLP	12.7	52.6	15.5	22.8	25.0	417
18	MT 1855	MT1053/MO8/3-4	12.0	54.7	15.4	22.3	10.3	470
6	ND 695	REEDER	11.1	53.7	15.7	22.8	51.7	380
10	PI 676978	LANNING	10.4	53.5	15.6	18.9	66.7	389
3	AGRIPR141	SY INGMAR	8.8	56.1	15.7	20.1	40.0	406
MEAN			14.4	54.7	15.7	21.7	27.5	404
C.V.			10.7	1.2	2.5	4.7	32.2	3.6
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			2.0	0.9	0.6	1.6	14.3	23

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OFF-STATION : KNEES (DRY) : 9967

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
20	MT 1927	MT1203/MT1234	61.4	57.2	14.5	185.7	<u>26.7</u>
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	54.0	58.7	14.0	185.0	26.0
22	MT 1934	VIDA/MT1319	52.1	58.9	15.1	185.0	25.0
7	PI 642366	VIDA	51.8	59.4	14.4	185.7	<u>28.0</u>
17	MT 1809	VIDA/MO 09/3-4	51.3	58.1	15.3	185.0	<u>27.3</u>
14	PI 633974	CHOTEAU	50.9	58.8	14.7	185.0	<u>27.0</u>
21	MT 1931	LANNING/MT1319	50.8	58.8	14.5	185.0	25.7
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	50.4	57.6	15.3	185.0	24.7
8	PI 660981	DUCLAIR	49.5	58.4	14.9	185.3	<u>26.3</u>
11	PI 679964	NS PRESSER CLP	49.3	58.2	14.3	185.7	28.3
10	PI 676978	LANNING	48.7	59.1	15.4	185.0	23.7
13	WB9879CLP	WB9879CLP	48.6	57.9	15.0	185.0	24.3
1	AGRIPR 10	BRENNAN	47.8	<u>60.0</u>	15.4	185.0	24.0
4	BZ 92413R	WB GUNNISON	47.7	59.5	14.1	185.0	25.7
16	MT 1716	MT SIDNEY	47.7	59.4	15.1	185.3	<u>27.7</u>
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	47.2	59.7	15.1	185.3	<u>27.7</u>
18	MT 1855	MT1053/MO8/3-4	46.3	58.7	<u>16.2</u>	186.0	<u>28.0</u>
2	AGRIPR 14	SY SOREN	46.0	59.4	15.7	185.3	23.3
15	WSCIA	ALUM	45.8	60.4	14.3	186.3	<u>26.3</u>
3	AGRIPR141	SY INGMAR	45.8	59.8	15.3	185.3	24.0
6	ND 695	REEDER	45.5	59.4	14.9	185.0	<u>26.7</u>
5	BZ 996434	CORBIN	44.5	59.5	14.2	185.0	<u>27.3</u>
9	PI 671855	EGAN	44.0	58.0	15.4	185.7	25.7
25	MT 1951	LANNING/EGAN	43.0	55.6	16.4	185.3	25.7
12	PI 690450	DAGMAR	42.0	59.3	15.7	185.3	25.3
MEAN			48.5	58.8	15.0	185.3	26.0
C.V.			13.0	0.7	2.1	0.3	5.0
PROBABILITY (ENTRY)			ns	<0.001	<0.001	ns	<0.001
LSD(0.05)			-	0.6	0.5	-	2.2

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OFF-STATION : MOCCASIN (DRY) : 9970

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
11	PI 679964	NS PRESSER CLP	28.0	56.0	16.3	180.5	20.7
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	27.0	55.8	16.5	176.9	21.4
12	PI 690450	DAGMAR	25.9	57.5	16.4	177.8	20.6
10	PI 676978	LANNING	25.2	55.7	16.8	176.9	21.0
22	MT 1934	VIDA/MT1319	25.1	56.5	16.3	177.3	22.1
21	MT 1931	LANNING/MT1319	25.0	55.7	16.2	177.0	20.7
16	MT 1716	MT SIDNEY	24.7	56.8	16.8	178.5	21.8
14	PI 633974	CHOTEAU	24.5	56.0	17.3	178.9	20.2
18	MT 1855	MT1053/MO8/3-4	24.4	56.6	16.7	180.1	20.7
1	AGRIPR 10	BRENNAN	24.3	57.9	17.2	177.4	21.3
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	24.2	56.1	16.2	177.9	19.7
17	MT 1809	VIDA/MO 09/3-4	23.6	55.7	16.8	178.5	19.8
6	ND 695	REEDER	23.6	57.2	16.9	180.1	22.0
7	PI 642366	VIDA	23.5	56.3	16.3	179.5	20.1
20	MT 1927	MT1203/MT1234	23.4	53.2	17.4	180.0	20.5
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	23.2	58.6	16.8	179.4	19.2
3	AGRIPR141	SY INGMAR	22.9	56.4	17.3	178.9	20.6
4	BZ 92413R	WB GUNNISON	22.8	57.5	16.2	178.2	20.5
15	WSCIA	ALUM	22.2	58.0	16.7	178.1	19.7
25	MT 1951	LANNING/EGAN	22.2	52.9	17.7	178.2	19.7
13	WB9879CLP	WB9879CLP	21.9	55.6	17.3	179.3	18.5
8	PI 660981	DUCLAIR	21.9	55.6	16.3	177.1	20.7
5	BZ 996434	CORBIN	21.4	57.8	16.9	177.4	21.1
9	PI 671855	EGAN	21.1	55.3	18.1	180.0	19.9
2	AGRIPR 14	SY SOREN	20.0	56.1	17.1	178.7	19.2
MEAN			23.7	56.3	16.8	178.5	20.5
C.V.			17.1	0.8	0.7	0.4	6.3
PROBABILITY (ENTRY)			ns	<0.001	<0.001	<0.001	ns
LSD(0.05)			-	0.6	0.6	1.1	-

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OFF-STATION : DENTON (DRY) : 9971

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
11	PI 679964	NS PRESSER CLP	13.6	57.2	17.1	17.8
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	13.2	56.5	17.5	17.4
7	PI 642366	VIDA	12.1	56.6	16.7	16.6
17	MT 1809	VIDA/M0 09/3-4	11.9	56.6	17.2	16.2
20	MT 1927	MT1203/MT1234	11.8	56.0	17.7	17.6
18	MT 1855	MT1053/MO8/3-4	11.7	57.9	17.4	17.2
16	MT 1716	MT SIDNEY	11.7	55.7	17.4	17.8
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	11.5	55.3	17.1	15.9
22	MT 1934	VIDA/MT1319	11.4	56.7	17.3	16.1
25	MT 1951	LANNING/EGAN	11.3	54.4	18.5	17.0
21	MT 1931	LANNING/MT1319	11.3	56.0	17.3	15.5
6	ND 695	REEDER	11.0	58.7	17.4	16.2
14	PI 633974	CHOTEAU	9.6	58.5	17.4	16.4
10	PI 676978	LANNING	9.5	56.7	17.8	15.7
15	WSCIA	ALUM	9.2	57.6	16.6	17.2
8	PI 660981	DUCLAIR	9.0	55.5	17.2	17.4
13	WB9879CLP	WB9879CLP	9.0	57.5	17.6	16.5
12	PI 690450	DAGMAR	9.0	57.9	17.5	16.6
5	BZ 996434	CORBIN	8.9	55.3	17.4	16.8
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	8.7	55.0	17.5	15.9
3	AGRIPR141	SY INGMAR	8.7	57.9	18.1	16.2
4	BZ 92413R	WB GUNNISON	8.6	55.9	16.6	16.1
2	AGRIPR 14	SY SOREN	8.4	56.0	18.3	17.0
9	PI 671855	EGAN	7.8	56.7	18.3	16.7
1	AGRIPR 10	BRENNAN	6.8	43.3	18.2	15.2
MEAN			10.2	56.1	17.5	16.6
C.V.			24.6	5.5	1.7	7.8
PROBABILITY (ENTRY)			ns	<0.001	>0.001	ns
LSD(0.05)			-	4.8	0.5	-

bold : highest or earliest value within a column

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2021 OFF-STATION : GERALDINE (DRY) : 9972

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	<u>22.5</u>	58.0	17.4	21.5
21	MT 1931	LANNING/MT1319	22.2	57.9	17.9	22.2
8	PI 660981	DUCLAIR	19.9	57.3	17.9	21.3
22	MT 1934	VIDA/MT1319	19.6	58.0	<u>18.3</u>	22.3
9	PI 671855	EGAN	19.6	57.6	17.5	22.8
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	19.5	58.2	17.2	20.4
15	WSCIA	ALUM	19.3	59.6	17.6	21.1
12	PI 690450	DAGMAR	18.9	58.6	17.8	21.9
1	AGRIPR 10	BRENNAN	18.4	<u>60.2</u>	17.5	20.2
17	MT 1809	VIDA/M0 09/3-4	18.3	57.1	18.2	21.4
16	MT 1716	MT SIDNEY	18.1	58.6	18.0	22.6
20	MT 1927	MT1203/MT1234	17.9	55.7	17.1	21.4
25	MT 1951	LANNING/EGAN	17.2	55.4	17.4	<u>22.9</u>
14	PI 633974	CHOTEAU	16.9	58.2	17.8	19.9
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	16.8	59.5	17.3	21.2
10	PI 676978	LANNING	16.6	56.8	17.4	21.3
13	WB9879CLP	WB9879CLP	16.2	57.7	17.4	18.9
4	BZ 92413R	WB GUNNISON	16.0	58.3	17.2	18.7
6	ND 695	REEDER	15.8	58.6	17.8	22.0
5	BZ 996434	CORBIN	15.7	59.0	17.5	21.7
7	PI 642366	VIDA	15.3	58.1	17.3	20.6
2	AGRIPR 14	SY SOREN	14.5	58.4	17.8	20.0
18	MT 1855	MT1053/MO8/3-4	11.5	57.8	17.5	22.0
3	AGRIPR141	SY INGMAR	11.4	57.5	17.7	21.0
11	PI 679964	NS PRESSER CLP	9.2	54.9	17.8	21.9
MEAN			17.1	57.9	17.6	21.2
C.V.			12.0	1.7	3.8	5.2
PROBABILITY (ENTRY)			<0.001	<0.001	ns	<0.001
LSD(0.05)			3.0	1.6	-	1.6

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OFF-STATION : JUDITH GAP (DRY) : 9976

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
21	MT 1931	LANNING/MT1319	24.3	59.8	16.9	22.8
10	PI 676978	LANNING	23.1	59.4	17.1	21.8
22	MT 1934	VIDA/MT1319	23.0	59.2	16.9	22.5
16	MT 1716	MT SIDNEY	22.3	59.3	16.6	21.8
2	AGRIPR 14	SY SOREN	21.9	60.4	16.4	24.0
15	WSCIA	ALUM	21.9	61.3	17.4	22.4
7	PI 642366	VIDA	21.3	59.7	17.2	20.4
17	MT 1809	VIDA/M0 09/3-4	20.7	59.0	17.0	21.8
18	MT 1855	MT1053/MO8/3-4	20.1	59.8	17.1	21.3
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	20.0	58.9	17.1	23.1
6	ND 695	REEDER	19.8	60.3	16.5	20.2
5	BZ 996434	CORBIN	19.6	58.9	17.2	21.6
12	PI 690450	DAGMAR	19.5	60.0	17.0	21.8
14	PI 633974	CHOTEAU	19.5	59.0	17.0	20.9
13	WB9879CLP	WB9879CLP	19.4	59.5	16.7	21.5
11	PI 679964	NS PRESSER CLP	19.1	58.6	16.6	20.4
20	MT 1927	MT1203/MT1234	18.9	57.5	17.4	21.1
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	18.6	59.4	16.8	21.8
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	18.3	61.2	16.7	23.4
1	AGRIPR 10	BRENNAN	18.1	60.7	17.0	21.6
3	AGRIPR141	SY INGMAR	17.9	59.4	16.9	20.8
4	BZ 92413R	WB GUNNISON	17.8	60.6	17.4	22.1
8	PI 660981	DUCLAIR	17.4	58.2	16.3	20.6
9	PI 671855	EGAN	15.3	55.6	16.6	22.1
25	MT 1951	LANNING/EGAN	12.6	55.1	16.6	20.3
MEAN			19.6	59.2	16.9	21.7
C.V.			18.2	2.3	4.3	8.4
PROBABILITY (ENTRY)			ns	<0.001	ns	ns
LSD(0.05)			-	2.4	-	-

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OFF-STATION : BILLINGS (DRY) : 9994

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
7	PI 642366	VIDA	<u>16.2</u>	58.6	16.6	17.8
21	MT 1931	LANNING/MT1319	16.0	58.7	17.0	18.0
11	PI 679964	NS PRESSER CLP	15.9	57.1	16.4	22.1
12	PI 690450	DAGMAR	15.8	59.5	16.9	18.9
18	MT 1855	MT1053/MO8/3-4	15.7	58.5	17.6	<u>24.0</u>
22	MT 1934	VIDA/MT1319	15.7	59.1	17.2	15.7
9	PI 671855	EGAN	15.1	54.6	<u>19.3</u>	20.4
17	MT 1809	VIDA/MO 09/3-4	15.0	58.2	17.2	17.0
10	PI 676978	LANNING	14.8	57.8	17.7	17.3
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	14.2	58.7	17.2	19.4
20	MT 1927	MT1203/MT1234	13.6	54.5	18.4	17.6
4	BZ 92413R	WB GUNNISON	13.0	58.5	16.8	17.0
6	ND 695	REEDER	13.0	58.2	17.7	16.8
13	WB9879CLP	WB9879CLP	12.7	58.9	17.4	17.6
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	12.5	58.1	17.9	16.5
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	12.3	60.6	18.3	16.5
16	MT 1716	MT SIDNEY	12.1	57.9	17.5	19.3
25	MT 1951	LANNING/EGAN	11.6	55.6	18.6	17.3
15	WSCIA	ALUM	11.3	47.1	17.2	17.3
3	AGRIPR141	SY INGMAR	11.0	57.6	18.9	16.0
1	AGRIPR 10	BRENNAN	10.6	<u>60.9</u>	17.9	17.0
14	PI 633974	CHOTEAU	10.6	58.4	17.8	16.7
8	PI 660981	DUCLAIR	10.3	56.7	18.1	18.3
2	AGRIPR 14	SY SOREN	9.9	59.2	18.4	16.3
5	BZ 996434	CORBIN	5.5	45.6	18.2	17.3
MEAN			13.0	57.1	17.7	17.9
C.V.			17.6	7.5	3.4	7.8
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001
LSD(0.05)			3.8	7.4	1.0	2.4

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OFF-STATION : BROADVIEW (DRY) : 9995

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
12	PI 690450	DAGMAR	61.4	58.1	17.6	18.8
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	60.3	57.6	17.4	18.0
22	MT 1934	VIDA/MT1319	59.8	56.5	17.7	19.7
17	MT 1809	VIDA/MO 09/3-4	59.6	56.6	18.7	18.6
21	MT 1931	LANNING/MT1319	58.9	57.4	16.1	18.9
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	58.0	57.1	17.4	18.2
11	PI 679964	NS PRESSER CLP	55.2	56.2	17.9	18.8
16	MT 1716	MT SIDNEY	55.0	57.6	17.2	19.3
6	ND 695	REEDER	53.6	58.1	17.3	19.6
20	MT 1927	MT1203/MT1234	52.6	53.9	18.9	18.4
10	PI 676978	LANNING	52.1	57.0	18.4	18.6
7	PI 642366	VIDA	52.0	57.8	17.0	18.5
9	PI 671855	EGAN	51.6	55.4	19.4	20.3
18	MT 1855	MT1053/MO8/3-4	51.6	57.8	19.3	20.4
14	PI 633974	CHOTEAU	49.3	57.6	18.5	18.3
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	49.0	59.9	18.3	17.9
5	BZ 996434	CORBIN	48.8	58.3	18.4	17.9
4	BZ 92413R	WB GUNNISON	46.9	54.9	16.8	18.7
2	AGRIPR 14	SY SOREN	45.8	57.6	19.0	17.9
13	WB9879CLP	WB9879CLP	45.0	57.9	18.7	18.1
15	WSCIA	ALUM	44.8	57.4	18.8	18.7
3	AGRIPR141	SY INGMAR	43.0	56.9	18.6	18.2
1	AGRIPR 10	BRENNAN	42.7	59.0	17.8	18.0
25	MT 1951	LANNING/EGAN	42.4	54.6	19.2	19.5
8	PI 660981	DUCLAIR	40.2	55.4	18.0	20.2
MEAN			51.2	57.1	18.1	18.8
C.V.			5.4	1.5	2.8	6.3
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001
LSD(0.05)			8.0	1.4	0.9	2.1

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OFF-STATION : HYSHAM (IRRI) : 9996

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
18	MT 1855	MT1053/MO8/3-4	89.7	63.5	14.5	32.8
21	MT 1931	LANNING/MT1319	88.2	63.1	15.5	28.8
17	MT 1809	VIDA/MO 09/3-4	86.2	63.3	14.8	28.4
10	PI 676978	LANNING	86.0	62.9	15.9	29.1
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	84.6	64.1	14.8	28.8
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	84.6	62.9	15.4	29.9
13	WB9879CLP	WB9879CLP	83.7	63.6	15.4	28.1
22	MT 1934	VIDA/MT1319	82.1	63.1	15.0	29.0
12	PI 690450	DAGMAR	82.0	63.2	15.6	31.1
2	AGRIPR 14	SY SOREN	81.8	64.3	15.4	27.9
11	PI 679964	NS PRESSER CLP	81.6	62.6	14.4	28.4
7	PI 642366	VIDA	80.7	63.3	14.5	28.9
16	MT 1716	MT SIDNEY	79.5	62.7	15.1	29.9
20	MT 1927	MT1203/MT1234	79.1	61.6	15.3	27.3
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	77.8	62.6	15.0	28.0
1	AGRIPR 10	BRENNAN	77.7	64.6	16.1	29.3
5	BZ 996434	CORBIN	77.7	63.3	15.5	27.6
9	PI 671855	EGAN	77.3	61.4	16.9	29.0
15	WSCIA	ALUM	75.3	62.3	14.8	29.0
6	ND 695	REEDER	74.8	63.4	15.5	29.6
3	AGRIPR141	SY INGMAR	73.2	63.8	14.9	28.8
4	BZ 92413R	WB GUNNISON	71.9	62.3	14.7	28.6
25	MT 1951	LANNING/EGAN	70.9	59.2	16.7	28.2
8	PI 660981	DUCLAIR	69.3	61.9	15.0	27.8
14	PI 633974	CHOTEAU	68.4	62.2	15.5	27.2
MEAN			79.4	62.9	15.3	28.9
C.V.			3.5	0.6	1.9	3.4
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001
LSD(0.05)			5.1	0.7	0.5	1.8

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OFF-STATION : FROMBERG (IRRI) : 9997

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
17	MT 1809	VIDA/M0 09/3-4	87.2	61.2	12.8	32.0
22	MT 1934	VIDA/MT1319	84.3	62.1	12.3	32.9
11	PI 679964	NS PRESSER CLP	81.8	61.7	12.1	33.7
19	MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	81.8	62.5	11.7	32.7
5	BZ 996434	CORBIN	81.0	61.8	12.7	31.1
21	MT 1931	LANNING/MT1319	80.7	61.6	12.4	31.0
24	MT 1939	LANNING///MT1018//CHOTEAU/YELLOWSTONE	80.7	62.0	11.3	32.3
12	PI 690450	DAGMAR	80.4	62.2	12.4	32.9
13	WB9879CLP	WB9879CLP	79.2	61.6	12.1	32.8
7	PI 642366	VIDA	79.1	61.9	12.0	32.9
15	WSCIA	ALUM	79.1	63.1	12.0	30.3
18	MT 1855	MT1053/MO8/3-4	77.5	61.2	12.7	33.9
14	PI 633974	CHOTEAU	77.3	62.2	12.1	32.5
23	MT 1938	LANNING///MT1018//CHOTEAU/YELLOWSTONE	77.3	60.5	12.0	31.1
20	MT 1927	MT1203/MT1234	77.2	60.0	12.3	31.9
16	MT 1716	MT SIDNEY	76.8	60.8	11.5	33.5
4	BZ 92413R	WB GUNNISON	76.7	63.3	12.5	30.7
2	AGRIPR 14	SY SOREN	73.8	61.8	12.7	29.8
8	PI 660981	DUCLAIR	73.1	60.7	11.9	31.5
6	ND 695	REEDER	72.5	62.3	12.5	33.5
25	MT 1951	LANNING/EGAN	72.2	59.7	12.8	33.6
10	PI 676978	LANNING	72.0	61.1	13.2	30.3
3	AGRIPR141	SY INGMAR	70.7	60.6	12.7	30.8
9	PI 671855	EGAN	68.9	59.8	13.7	32.8
1	AGRIPR 10	BRENNAN	68.5	61.1	13.5	30.8
MEAN			77.2	61.5	12.4	32.1
C.V.			3.4	1.6	2.5	4.3
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001
LSD(0.05)			4.5	1.6	0.6	2.3

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OFF-STATION : ROOSEVELT (DRY)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
14	MT 1931	MT1316/MT1319	<u>27.7</u>	55.6	17.9	26.1
16	MT 1938	MT1316///MT1018//CHOTEAU/YELLOWSTONE-3	<u>26.8</u>	56.9	17.4	24.8
1	AGRIPR 10	BRENNAN	<u>26.3</u>	<u>58.2</u>	18.3	23.6
8	PI 676978	LANNING	<u>26.0</u>	54.6	18.0	25.6
10	PI 690450	DAGMAR	<u>26.0</u>	58.4	18.0	25.7
3	AGRIPR141	SY INGMAR	<u>25.3</u>	56.4	18.8	24.4
15	MT 1934	VIDA/MT1319	<u>24.2</u>	56.4	17.2	26.4
4	ND 695	REEDER	<u>23.8</u>	<u>57.5</u>	18.1	26.5
7	PI 671855	EGAN	22.2	54.8	19.9	25.2
5	PI 642366	VIDA	21.5	57.4	17.5	24.3
2	AGRIPR 14	SY SOREN	21.5	55.8	18.8	24.7
12	MT 1716	MT SIDNEY	21.4	<u>58.2</u>	17.1	26.3
17	MT 1951	MT1316/EGAN	20.0	52.8	<u>19.6</u>	25.7
13	MT 1809	VIDA/M0 09/3-4	19.9	56.8	18.9	23.6
9	PI 679964	NS PRESSER CLP	19.8	56.0	17.3	24.4
6	PI 660981	DUCLAIR	17.7	55.3	18.6	25.3
11	PI 633974	CHOTEAU	17.6	<u>57.6</u>	17.5	23.4
MEAN			22.8	56.4	18.2	25.1
C.V.			12.4	1.0	2.3	6.3
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	ns
LSD(0.05)			4.7	1.0	0.7	-

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 OFF-STATION : SHERIDAN (DRY)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
13	MT 1809	VIDA/M0 09/3-4	<u>33.0</u>	64.1	15.2	17.7
14	MT 1931	MT1316/MT1319	<u>30.8</u>	63.8	15.6	18.1
5	PI 642366	VIDA	<u>29.6</u>	64.2	15.1	19.8
15	MT 1934	VIDA/MT1319	<u>29.2</u>	63.6	15.7	18.9
4	ND 695	REEDER	<u>28.7</u>	64.3	15.9	17.3
16	MT 1938	MT1316///MT1018//CHOTEAU/YELLOWSTONE-3	27.6	62.9	16.3	15.6
3	AGRIPR141	SY INGMAR	27.4	<u>65.3</u>	16.4	18.4
10	PI 690450	DAGMAR	26.4	63.7	16.4	17.3
9	PI 679964	NS PRESSER CLP	26.0	63.7	15.7	<u>20.7</u>
12	MT 1716	MT SIDNEY	25.8	64.3	16.1	18.1
17	MT 1951	MT1316/EGAN	24.0	60.3	17.8	17.7
2	AGRIPR 14	SY SOREN	23.4	64.6	17.1	17.4
8	PI 676978	LANNING	23.3	63.1	16.7	17.8
7	PI 671855	EGAN	22.4	61.9	<u>18.7</u>	17.7
6	PI 660981	DUCLAIR	22.3	62.3	16.4	18.5
11	PI 633974	CHOTEAU	21.3	63.5	17.0	17.8
1	AGRIPR 10	BRENNAN	17.1	<u>64.9</u>	17.2	16.9
MEAN			25.8	63.6	16.4	18.0
C.V.			11.8	0.6	3.0	8.3
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	ns
LSD(0.05)			5.0	0.7	0.8	-

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021 ALUMINUM SCREENING NURSERY, Mike Pumphrey, Washington State University

ID	PEDIGREE	RESULT
SY INGMAR	-	S
SY ROCKFORD	-	T
WB GUNNISON	-	S
CORBIN	-	T
THATCHER	-	S
REEDER	-	T
MCNEAL	-	T
CHOTEAU	-	MT
VIDA	-	S
DUCLAIR	-	T
EGAN	-	T
LANNING	-	MT
NS PRESSER CLP	-	S
DAGMAR	-	S
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	-
MT SIDNEY	MT1274/RB07	-
MT 1809	VIDA/M0 09/3-4	-
MT 1855	MT1053/MO8/3-4	-
MT 1904	VIDA///MT1018//CHOTEAU/YELLOWSTONE	-
MT 1927	MT1203/MT1234	-
MT 1931	MT1316/MT1319	-
MT 1934	VIDA/MT1319	-
MT 1938	MT1316///MT1018//CHOTEAU/YELLOWSTONE	-
MT 1939	MT1316///MT1018//CHOTEAU/YELLOWSTONE	-
MT 1951	MT1316/EGAN	T
BZ917-252	-	S
BZ917-277	-	S
LCS BUSTER	-	T
MS RANCHERO	-	S
WB 9590	-	T
WB 9719	-	T
SY McCLOUD	-	S

T = Tolerant

MT = Moderatly Tolerant

S = Susceptible

STRIPE RUST INFECTION TYPE (IT^a) AND SEVERITY (%) ON CULTIVARS AND LINES IN THE SPRING WHEAT MONTANA NURSERY (EXP217) AT MOUNT VERNON (LOC 05), WA WHEN RECORDED AT THE INDICATED DATES AND STAGES OF PLANT GROWTH UNDER NATURAL INFECTION IN 2021
Due to the extreme severe drought conditions in eastern Washington, the nuresery did not have adequate stripe rust for reliable evaluation at the PCFS Farm (LOC 04) near Pullman, WA.

ID	PEDIGREE	MOUNT VERNON (LOC 05) ^b			
		5/26		6/22	
		Fks 3 ^c		Fks 10.53	
		IT	%	IT	%
SY INGMAR	-	9	80	8	80
SY Rockford	-	9	80	8	90
WB GUNNISON	-	9	80	8	70
CORBIN	-	8	60	8	70
THATCHER	-	8	60	9	90
REEDER	-	9	80	9	90
MCNEAL	-	9	80	9	100
CHOTEAU	-	5	40	5	40
VIDA	-	5	50	8	70
DUCLAIR	-	8	80	8	80
EGAN	-	8	60	5	40
LANNING	-	5	40	8	70
NS PRESSER CLP	-	9	80	9	100
DAGMAR	-	8	80	5	40
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	5	40	8	50
MT SIDNEY	MT1274/RB07	3	30	8	50
MT 1809	VIDA/M0 09/3-4	8	80	9	90
MT 1855	MT1053/MO8/3-4	5	60	5	30
MT 1904	VIDA//MT1018//CHOTEAU/YELLOWSTONE	8	80	8	70
MT 1927	MT1203/MT1234	8	80	9	100
AvS (S. check)		9	80	9	100
MT 1931	LANNING/MT1319	8	60	7	60
MT 1934	VIDA/MT1319	8	60	8	90
MT 1938	LANNING//MT1018//CHOTEAU/YELLOWSTONE	8	80	8	90
MT 1939	LANNING//MT1018//CHOTEAU/YELLOWSTONE	9	80	8	70
MT 1951	MT1316/EGAN	8	70	9	100
BZ917-252	-	8	80	3	30
BZ917-277	-	8	80	8	80
LCS BUSTER	-	9	80	5	40
MS RANCHERO	-	3	30	3	20
WB 9590	-	8	80	5	40
WB 9719	-	8	80	5	40
SY McCLOUD	-	9	80	9	90
AvS (S. check)		9	80	9	100
Morex Barley		8	40	9	90

^a Infection Type (IT) was recorded based on the 0-9 scale with ITs 8 and 9 combined as 8 (the most susceptible reaction) in field data. Generally IT 0-3 are considered resistant, 4-6 intermediate, and 7-9 susceptible. Heterogenous reactions of an entry were indicated by two or more ITs separated by "," for most plants with the first IT and few plants with the second IT or connected with "-" for entries containing plants with continuous ITs.

^b Entries with a high IT in the first note, but a low IT in the second note at Mt. Vernon (LOC 05) may indicate that they have high-temperature, adult-plant (HTAP) resistance.

^c Feekes scale for growth stage.

SPRING WHEAT FUNGAL LEAF SPOT EVALUATION (2021) (Dr. Zhaohui Liu, NDSU, Fargo, ND)

ID	Ptr ToxA	Pti2 (race 1)	DW5 (race 5)
BRENNAN	0	2.5	2
SY SOREN	0	2	1
BZ917-252	1	2	1.5
BZ917-277	0	1	1
CHOTEAU	0	2.5	3.5
CORBIN	1	4.5	3
DAGMAR	0	2	4
DUCLAIR	0	3.5	3.5
EGAN	0	1	1
LANNING	0	1.5	4
LCS BUSTER	0	1.5	1
McNEAL	0	1	1
MS RANCHERO	0	1.5	2
NS PRESSER CLP	1	2.5	1.5
REEDER	1	2	4.5
SY INGMAR	1	3.5	3.5
SY ROCKFORD	0	1.5	1
VIDA	0	2	1
WB 9879 CLP	0	4	2
WB GUNNISON	1	3.5	2.5
MT SIDNEY	0	2	4
MT 1809	0	2	2
MT 1855	1	4	3
MT 1904	0	2	2
MT 1927	0	4	3
MT 1931	0	2.5	4
MT 1934	0	2	4
MT 1938	0	1	1
MT 1939	0	3.5	3.5
MT 1951	0	1	3.5

1,2=resistant, 3=moderately, 4,5=highly susceptible

PLANT VARIETY PROTECTION (PVP)

The developer of a new distinct variety may obtain protection (essentially a patent) for that variety if he/she chooses to do so, provided the variety meets the requirements of the Plant Variety Protection Act of 1970. This Act permits the owner or developer of a variety to prohibit others from selling, sexually multiplying, using for propagation for seed, or using to produce a hybrid, seed of his/her variety.

Two options, for plant variety protection, are available to the developer of the variety. Under the first option, the developer of the variety or his/her agent may sell either certified or uncertified seed of the variety. If the developer of the variety has reason to believe that anyone is infringing on his/her rights, he/she may resort to civil action. The other option ("certification option") for protecting a variety utilizes the provision of Title V of the Federal Seed Act. A variety protected in this manner may be sold by variety name only as a class of certified seed. It is the responsibility of the seller to inform the buyer if the variety is protected. Each container of seed sold should be labeled with a tag indicating the type of protection which the owner has. Under the first option, the label will state: "Unauthorized Propagation Prohibited - U.S. Protected Variety." If the owner of the variety has chosen the other option for variety protection, the label will state, "Unauthorized Propagation Prohibited - To be Sold by Variety Name Only as a Class of Certified Seed - U.S. Protected Variety."

PLEASE NOTE: Varieties protected under the PVP act, as amended in 1994, can no longer can be sold without permission of the variety owner (the farmer exemption has been excluded)'

A complete listing of all protected varieties is available in the "Official Journal of the Plant Variety Protection Office" which may be obtained upon request from:

Plant Variety Protection Office Warehouse Division, AMS U.S. Dept. of Agriculture National Agricultural Library Beltsville, MD 20705

Phone: (301) 504-5518

Internet: <http://www.ams.usda.gov/science/pvpo/pvpindex.htm>

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