

2023
Montana Spring Wheat Variety Performance Evaluations

MONTANA COUNTIES



SPRING WHEAT VARIETY PERFORMANCE SUMMARY IN MONTANA

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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 2020-2023 is provided for each of the testing sites. Data for varieties grown in previous years can be found on this website:

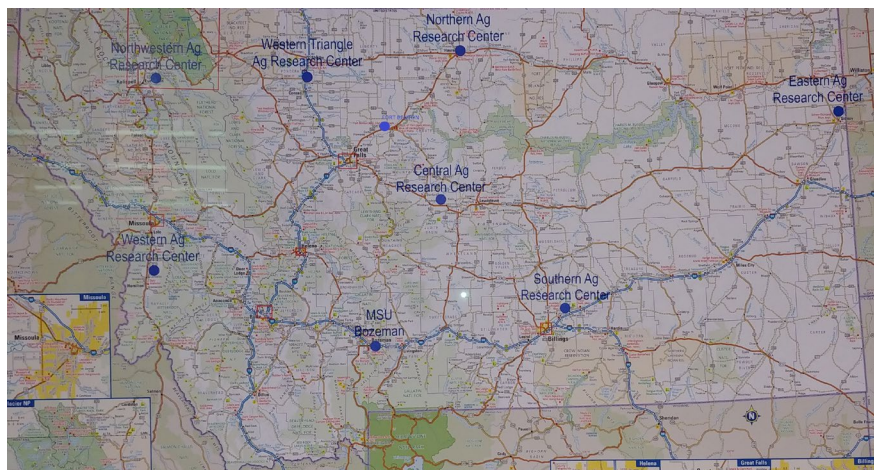
<http://plantsciences.montana.edu/crops/index.html>.

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

Advanced Spring Wheat yield trial (AYT) was planted at 11 locations; Kalispell (NWARC : high rainfall), Bozeman (rainfed), Huntley (SARC : rainfed), Moccasin (CARC : rainfed), Conrad (WTARC : rainfed), Havre (NARC : rainfed), Hingham (2nd Nature Seeds: rainfed), Fort Benton (Nutrien: rainfed), Sidney (EARC: rainfed and irrigated) and Williston (NDSU: rainfed).



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.

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ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023
MT DUTTON	61.2	53.8	62.4	72.5	58.9	58.7	59.3	59.6	15.0	14.7	14.4	13.7
MT CARLSON	61.0	54.3	61.7	71.7	59.7	59.2	60.0	59.8	14.7	14.5	14.2	13.9
DAGMAR	60.3	53.1	60.8	72.3	60.3	60.0	60.6	60.6	15.3	15.0	14.6	14.2
VIDA	59.6	52.2	60.6	70.1	59.2	59.0	59.4	59.3	14.6	14.4	14.2	14.0
NS PRESSER CLP	58.0	50.8	58.1	66.5	58.1	58.1	58.5	58.5	15.0	14.5	14.2	14.0
MT SIDNEY	56.9	50.0	57.3	68.1	60.0	59.5	60.5	60.3	14.9	14.7	14.3	13.7
SY ROCKFORD	56.8	49.6	56.9	68.6	58.5	58.3	59.5	59.5	14.8	14.6	14.1	13.5
LANNING	56.5	50.1	58.3	69.1	59.3	58.9	59.9	59.9	15.4	15.2	14.9	14.3
WB 9719	56.0	49.0	56.3	66.2	61.5	61.1	61.9	61.8	14.8	14.5	14.2	13.5
DUCLAIR	55.7	48.2	56.3	65.5	58.6	58.3	59.1	58.9	14.9	15.0	14.6	14.2
CHOTEAU	55.3	48.1	56.7	65.0	59.2	58.7	59.3	59.0	15.1	15.0	14.6	14.1
MS RANCHERO	55.2	48.7	56.4	64.3	59.4	59.1	60.2	60.1	14.5	14.4	13.9	13.7
WB 9879 CLP	54.8	47.8	54.8	62.9	59.5	59.1	59.9	59.6	15.3	15.2	14.8	14.2
REEDER	54.6	48.4	55.7	65.0	59.8	59.4	59.9	60.2	15.2	14.9	14.7	14.4
SY LONGMIRE	54.4	48.1	55.5	66.0	60.1	59.7	60.0	60.0	15.3	15.1	14.9	14.3
SY 611 CL2	53.3	48.0	55.8	67.5	59.8	60.0	61.0	60.9	15.1	14.9	14.5	13.8
WB GUNNISON	53.1	48.3	55.4	64.4	60.0	59.8	60.3	60.5	14.4	14.2	13.8	13.4
McNEAL	53.0	46.8	55.6	65.0	58.7	58.4	59.3	59.2	15.2	15.0	14.7	14.4
SY INGMAR	51.8	45.7	52.4	61.3	59.7	59.6	60.7	60.3	15.7	15.4	15.0	14.5
CORBIN	51.3	46.6	52.7	61.7	59.8	59.5	59.7	59.5	15.0	15.0	14.7	14.1
MT 2030		52.7	60.5	70.9		59.5	60.1	59.9		14.6	14.3	13.8
ROCKER		51.7	59.9	68.4		60.2	60.6	60.5		14.7	14.4	14.1
LCS ASCENT		51.6	59.4	69.3		60.7	61.0	60.8		14.2	13.7	13.3
MT 2049		51.4	58.1	66.1		58.8	59.6	60.1		14.7	14.4	13.7
MT 2063		51.1	59.7	68.4		59.3	60.0	59.7		14.5	14.0	13.8
WB 9516		50.6	57.5	67.3		60.6	60.8	61.2		14.3	14.0	13.5
MS COBRA		48.0	56.0	68.2		60.1	60.9	60.9		14.8	14.2	13.6
AP GUNSMOKE CL2		46.9	54.4	66.1		59.1	59.8	59.9		15.8	15.4	14.7
AP SMITH		45.8	53.1	63.4		59.3	60.2	59.8		15.4	15.0	14.5
AAC CONCORD		45.5	52.2	61.0		58.7	59.5	59.6		15.2	14.9	14.4
THATCHER		36.8	43.0	49.0		56.9	58.5	58.5		15.2	14.8	14.5
LCS HammerAX			58.4	68.4			60.4	60.1			13.7	13.1
MT 21074			59.4	69.1			60.8	60.9			14.8	14.5
MT 21104			58.5	66.8			60.5	60.1			14.3	13.9
WB 9668			52.7	61.9			59.8	59.3			15.7	15.2
LCS BOOM				67.5				61.2				13.8
NDHRS14-0134-C03				67.4				58.9				14.0
W-2				65.1				58.9				14.3
MEAN	55.9	49.1	56.8	67.5	59.5	59.3	60.0	60.0	15.0	14.8	14.5	14.1
C.V.	4.8	6.2	6.6	7.7	1.0	1.1	1.0	1.4	1.9	2.4	3.0	3.4
F-VALUE (ENTRY)	<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)	3.1	2.8	3.7	4.8	0.7	0.6	0.6	0.8	0.3	0.3	0.4	0.4

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

**2020-2023 OVERALL AVERAGE OF GRAIN YIELD, TEST WEIGHT AND PROTEIN CONTENT FOR THE ADVANCED SPRING
WHEAT NURSERY GROWN UNDER IRRI / HIGH RAINFALL CONDITION (KALISPELL, BOZEMAN-IRRI, SIDNEY-IRRI)**

ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023
MT DUTTON	96.9	97.5	110.0	128.2	62.7	61.7	61.2	60.6	14.4	12.6	13.6	13.6
DAGMAR	95.5	97.3	110.7	127.1	63.5	62.5	62.7	61.7	15.3	13.3	14.1	14.6
SY LONGMIRE	95.5	95.1	105.7	116.9	63.7	63.1	63.1	62.8	14.3	12.7	13.4	13.7
SY 611 CL2	95.5	95.1	104.5	120.5	64.1	63.3	63.4	63.2	14.5	12.8	13.7	13.8
WB 9719	95.4	96.3	105.2	117.3	66.0	65.1	65.1	64.3	14.0	12.5	13.0	13.3
MS RANCHERO	95.2	94.5	98.0	102.9	63.4	62.1	62.2	61.4	13.5	12.1	12.9	12.9
MT SIDNEY	94.4	99.8	109.4	130.2	63.9	62.8	62.6	61.4	14.1	12.6	13.2	13.1
VIDA	93.9	92.1	101.8	117.6	63.0	62.2	61.5	60.4	14.0	12.3	13.2	13.5
SY ROCKFORD	93.1	92.5	103.5	113.0	62.4	61.2	61.3	60.2	14.0	12.6	13.0	12.9
MT CARLSON	93.0	99.9	111.3	124.0	62.8	62.1	62.6	61.7	14.2	12.6	13.2	13.3
REEDER	92.3	91.5	98.3	114.6	63.5	62.9	62.4	61.8	14.4	13.0	13.7	13.8
LANNING	91.7	89.7	100.9	116.6	62.2	61.7	62.3	62.0	15.1	13.3	13.9	13.9
NS PRESSER CLP	91.7	94.0	98.0	111.0	62.2	61.5	60.3	59.4	13.7	12.2	13.0	13.0
SY INGMAR	89.7	87.0	97.6	106.8	64.2	63.3	63.4	63.0	14.6	13.3	13.9	14.3
DUCLAIR	89.2	93.0	106.6	114.4	62.0	61.4	61.9	61.3	14.2	12.6	13.2	13.5
WB 9879 CLP	88.3	88.9	102.3	113.5	63.0	62.1	62.2	60.9	14.3	12.7	13.2	13.6
CHOTEAU	88.2	91.6	106.0	121.0	62.6	61.9	61.4	59.9	14.4	12.6	13.3	13.6
McNEAL	86.5	86.3	93.1	105.3	62.0	61.8	62.1	62.2	14.8	12.9	13.7	13.6
WB GUNNISON	82.7	88.7	98.2	110.9	63.6	62.9	62.9	62.8	13.7	12.2	12.8	12.8
CORBIN	82.3	86.8	94.2	102.3	63.0	62.3	61.8	60.4	14.5	12.7	13.3	13.5
WB 9516		101.3	113.0	129.2		63.4	63.1	62.0		12.4	12.6	12.7
MT 2063		97.9	107.6	118.6		62.5	62.1	60.4		11.9	12.6	13.2
LCS ASCENT		97.4	111.6	126.3		63.0	63.2	62.0		12.3	13.0	13.3
MT 2049		95.7	103.2	118.6		61.6	61.8	61.5		13.2	13.7	13.7
MT 2030		95.2	106.2	116.6		61.7	62.1	61.1		12.9	13.7	13.8
MS COBRA		95.0	105.6	120.1		62.9	63.1	62.5		13.1	13.4	13.5
ROCKER		94.0	103.9	113.4		62.7	62.4	61.6		12.5	13.3	13.5
AP GUNSMOKE CL2		92.8	105.4	116.1		62.2	62.3	61.8		13.1	14.0	14.0
AP SMITH		91.8	100.4	114.5		62.8	63.2	62.7		13.3	13.7	13.7
AAC CONCORD		81.4	91.9	103.2		61.9	62.0	61.5		13.3	14.2	14.2
THATCHER		78.0	81.7	94.4		61.8	61.7	61.4		13.0	13.7	13.6
LCS HammerAX			113.3	123.5			62.8	62.5			13.1	13.4
MT 21104			112.2	124.1			62.9	62.1			13.1	13.2
MT 21074			103.9	116.4			62.8	62.3			14.0	14.3
WB 9668			94.4	102.2			62.1	61.0			14.4	14.9
NDHRS14-0134-C03				122.4				61.1				13.0
LCS BOOM				119.4				63.9				13.7
W-2				112.0				60.4				13.4
MEAN	91.5	92.9	103.5	118.0	63.2	62.4	62.4	61.6	14.3	12.7	13.5	13.6
C.V.	-	4.6	5.0	6.4	-	0.7	0.9	1.5	-	2.4	2.4	3.2
F-VALUE (ENTRY)	-	<0.01	<0.001	<0.001	-	<0.001	<0.001	<0.001	-	<0.01	<0.001	<0.001
LSD(0.05)	-	8.8	8.4	12.2	-	0.9	0.9	1.5	-	0.6	0.5	0.7

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

**2020-2023 OVERALL AVERAGE OF GRAIN YIELD, TEST WEIGHT AND PROTEIN CONTENT
FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA (COMBINED)
(BOZEMAN, HUNTLEY, MOCCASIN, FORT BENTON, HAVRE, SIDNEY-DRY, CONRAD, WILLISTON, HINGHAM,
KALISPELL, BOZEMAN-IRRI, SIDNEY-IRRI)**

ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023
MT DUTTON	66.3	61.7	75.4	86.5	59.5	59.3	59.8	59.8	14.9	14.3	14.2	13.7
MT CARLSON	65.6	62.6	75.2	84.8	60.2	59.8	60.8	60.2	14.6	14.2	13.9	13.8
DAGMAR	65.3	61.2	74.4	86.0	60.8	60.5	61.2	60.9	15.3	14.7	14.5	14.3
VIDA	64.5	59.5	71.8	82.0	59.7	59.6	60.0	59.6	14.5	14.0	13.9	13.9
NS PRESSER CLP	62.8	58.7	69.0	77.6	58.7	58.7	59.0	58.7	14.8	14.1	13.9	13.8
MT SIDNEY	62.3	59.1	71.5	83.6	60.6	60.1	61.1	60.6	14.7	14.3	14.0	13.6
SY ROCKFORD	62.0	57.4	69.6	79.7	59.1	58.8	60.0	59.7	14.7	14.2	13.8	13.3
WB 9719	61.6	57.6	69.7	79.0	62.1	61.9	62.9	62.4	14.6	14.1	13.9	13.4
LANNING	61.5	57.3	69.9	81.0	59.7	59.4	60.6	60.4	15.4	14.8	14.6	14.2
MS RANCHERO	60.9	57.0	67.7	74.0	60.0	59.7	60.8	60.4	14.4	13.9	13.6	13.5
DUCLAIR	60.5	56.3	70.0	77.7	59.1	58.9	60.0	59.5	14.8	14.5	14.2	14.0
SY LONGMIRE	60.3	56.7	69.2	78.7	60.6	60.3	61.0	60.7	15.2	14.7	14.5	14.2
REEDER	60.0	56.2	67.3	77.4	60.3	60.0	60.6	60.6	15.0	14.6	14.4	14.2
CHOTEAU	60.0	56.0	70.1	79.0	59.6	59.3	59.9	59.2	15.0	14.6	14.2	14.0
WB 9879 CLP	59.5	55.3	67.8	75.5	60.0	59.6	60.6	59.9	15.2	14.7	14.4	14.1
SY 611 CL2	59.3	56.5	69.1	80.7	60.4	60.6	61.7	61.5	15.0	14.5	14.3	13.8
McNEAL	57.8	54.0	65.8	75.1	59.2	59.0	60.1	59.9	15.1	14.6	14.4	14.2
WB GUNNISON	57.3	55.7	67.1	76.0	60.5	60.3	61.1	61.1	14.3	13.9	13.5	13.2
SY INGMAR	57.2	53.2	64.7	72.7	60.3	60.3	61.5	61.0	15.5	15.0	14.7	14.4
CORBIN	55.7	53.9	64.0	71.9	60.2	60.0	60.3	59.7	15.0	14.5	14.3	14.0
MT 2030		60.4	73.0	82.3		59.9	60.7	60.2		14.3	14.1	13.8
LCS ASCENT		59.9	73.6	83.5		61.1	61.7	61.1		13.9	13.5	13.3
WB 9516		59.8	72.6	82.8		61.1	61.5	61.4		13.9	13.6	13.3
MT 2063		59.6	72.8	81.0		59.8	60.6	59.9		14.0	13.6	13.6
MT 2049		59.5	70.4	79.2		59.3	60.3	60.4		14.4	14.2	13.7
ROCKER		59.4	71.9	79.6		60.7	61.2	60.8		14.3	14.1	14.0
MS COBRA		56.5	69.6	81.2		60.6	61.5	61.3		14.5	14.0	13.6
AP GUNSMOKE CL2		55.3	68.3	78.6		59.6	60.6	60.4		15.3	15.0	14.6
AP SMITH		54.2	66.0	76.2		59.9	61.1	60.5		15.0	14.6	14.3
AAC CONCORD		52.0	63.0	71.6		59.3	60.3	60.1		14.8	14.7	14.4
THATCHER		44.3	53.6	60.4		57.8	59.5	59.2		14.8	14.5	14.3
LCS HammerAX			73.4	82.2			61.1	60.7			13.6	13.2
MT 21104			73.1	81.1			61.2	60.6			13.9	13.7
MT 21074			71.5	80.9			61.4	61.3			14.6	14.4
WB 9668			64.0	72.0			60.5	59.7			15.4	15.2
NDHRS14-0134-C03				81.2				59.4				13.7
LCS BOOM				80.5				61.9				13.8
W-2				76.8				59.3				14.1
MEAN	61.0	57.0	69.6	80.1	60.0	59.8	60.8	60.4	14.9	14.4	14.2	14.0
C.V.	4.6	5.8	6.4	7.4	1.0	1.0	1.0	1.5	1.9	2.4	2.9	3.4
F-VALUE (ENTRY)	<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)	2.9	2.8	3.7	4.8	0.6	0.5	0.5	0.7	0.3	0.3	0.3	0.4

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

**2020-2023 OVERALL AVERAGE OF HEADING DATE, PLANT HEIGHT AND STEM SOLIDNESS
FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA
(BOZEMAN, HUNTLEY, MOCCASIN, FORT BENTON, HAVRE, SIDNEY-DRY, CONRAD, WILLISTON, HINGHAM,
KALISPELL, BOZEMAN-IRRI, SIDNEY-IRRI)**

LINE	HEADING DATE				PLANT HEIGHT				STEM SOLIDNESS (5-25) BOZEMAN ONLY			
	(JULIAN)				(INCHES)							
	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023
CHOTEAU	175.0	176.9	177.5	173.5	29.4	28.5	30.3	31.8	22.2	21.6	22.0	23.6
CORBIN	173.1	175.1	175.7	171.9	29.5	28.4	30.1	31.7	13.2	12.6	12.5	12.8
DAGMAR	172.6	174.8	175.2	171.5	30.7	29.4	31.3	33.1	18.6	17.4	16.3	16.3
DUCLAIR	172.9	175.1	175.6	171.7	30.0	28.8	30.6	32.2	19.9	19.3	18.9	19.5
LANNING	172.9	175.9	176.5	173.2	28.6	27.8	29.8	31.4	8.0	7.7	7.9	8.2
McNEAL	176.7	178.4	179.1	175.6	31.1	30.1	32.0	33.6	7.8	7.7	7.5	8.1
MS RANCHERO	174.3	178.3	180.1	178.0	31.0	30.1	32.8	35.6	7.9	7.3	6.8	6.8
MT CARLSON	173.8	175.9	176.5	172.8	29.2	28.2	30.0	31.1	19.4	18.1	17.3	16.3
MT DUTTON	174.6	176.8	177.6	173.4	29.9	29.7	30.9	32.4	11.9	11.0	10.0	10.1
MT SIDNEY	173.5	175.9	175.9	171.9	29.9	28.9	30.0	32.3	9.5	9.3	8.3	8.8
NS PRESSER CLP	177.7	179.7	180.7	176.9	31.5	29.9	32.4	33.9	7.7	7.3	7.4	7.7
REEDER	174.9	177.3	178.0	174.0	30.9	29.9	32.1	34.0	7.5	7.2	7.0	7.9
SY 611 CL2	174.1	176.2	176.7	172.9	27.2	26.4	27.7	28.9	9.5	9.0	9.5	9.8
SY INGMAR	175.7	177.7	178.5	175.6	28.6	27.0	28.9	30.1	9.3	8.8	9.4	11.2
SY LONGMIRE	174.6	176.5	177.0	173.3	28.7	27.6	29.0	30.2	20.4	20.6	20.4	20.5
SY ROCKFORD	176.8	178.8	179.4	175.6	29.5	28.4	30.4	31.9	8.3	7.9	7.9	8.4
VIDA	175.5	177.7	178.5	174.3	30.3	29.1	31.1	32.5	13.3	12.8	12.0	13.2
WB 9719	176.3	178.1	178.6	174.7	28.2	27.3	28.9	29.7	6.8	6.6	6.7	7.5
WB 9879 CLP	175.5	177.3	177.9	174.3	29.1	28.1	29.7	30.6	22.7	22.0	21.3	21.8
WB GUNNISON	174.8	176.9	177.6	173.7	28.1	27.3	29.0	29.9	12.0	11.4	11.3	9.9
AAC CONCORD		178.3	179.1	175.2		32.2	35.3	38.2		20.9	19.4	20.2
AP GUNSMOKE CL2		176.3	177.0	173.5		27.3	29.2	30.9		7.6	7.9	7.5
AP SMITH		178.0	178.5	174.8		25.6	27.0	28.5		10.2	11.1	11.8
LCS ASCENT		174.3	174.5	170.6		28.9	30.1	31.4		6.8	6.6	7.1
MS COBRA		175.8	176.6	172.6		28.3	30.0	31.6		7.6	8.0	8.6
MT 2030		176.2	176.7	173.2		28.0	30.0	31.7		12.8	11.7	12.3
MT 2049		174.4	174.2	169.9		27.2	29.2	30.8		11.0	11.5	14.1
MT 2063		175.6	175.9	172.2		28.0	30.1	31.6		13.8	12.4	12.3
ROCKER		178.1	178.8	175.2		28.6	30.4	31.3		10.3	9.2	10.8
THATCHER		180.1	180.8	176.1		35.8	39.4	41.8		6.8	7.2	8.0
WB 9516		177.3	177.8	174.0		28.1	29.9	30.7		8.1	7.9	8.7
LCS HammerAX			176.3	172.7			29.1	30.4			8.5	9.2
MT 21074			178.7	175.0			30.0	31.3			15.2	15.1
MT 21104			177.4	174.0			30.2	31.5			12.9	15.9
WB 9668			174.2	170.5			25.7	26.1			9.5	10.3
LCS BOOM				170.3				30.9				8.0
NDHRS14-0134-C03				172.2				32.3				8.9
W-2				171.8				32.1				23.6
MEAN	174.8	176.9	177.3	173.2	29.6	28.7	30.3	32.1	12.8	11.9	12.0	13.6
C.V.	0.3	0.4	0.4	0.5	2.4	4.3	3.3	3.8	9.3	11.2	10.9	14.0
F-VALUE (ENTRY)	<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)	0.6	0.7	0.7	0.8	0.8	1	0.9	1.0	1.7	2.2	2.7	3.1

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

2021-2023 OVERALL AVERAGE OF MILLING AND BAKING TRAITS

LINE	Flour yield (%)	Flour protein (%; 14% m.b.)	Mixing tolerance	Mixo mixing time (min.)	Mixo water absorption (%)	Bake mix time (min.)	Bake water absorption (%)	Loaf volume (cc)
AAC Concord	<u>71.9</u>	14.3	3.8	4.7	69.4	12.3	80.2	1168
AP Gunsmoke CL2	69.4	13.9	3.0	5.3	69.6	12.1	79.2	984
AP Smith	70.1	14.0	3.5	7.4	<u>71.6</u>	<u>17.9</u>	<u>81.8</u>	1079
CHOTEAU	70.2	13.6	2.3	3.5	67.4	7.5	77.0	1157
CORBIN	70.3	13.4	2.0	5.9	68.2	13.5	77.2	1043
DAGMAR	70.0	13.6	3.4	4.1	68.8	8.5	78.3	1118
DUCLAIR	69.8	13.6	3.4	4.6	68.4	10.3	77.8	1163
LANNING	70.2	14.0	2.8	4.0	68.7	9.4	78.6	1171
LCS ASCENT	70.6	12.9	3.1	4.8	68.6	10.0	77.7	1106
MCNEAL	68.4	13.7	3.6	7.2	70.6	14.2	80.0	1190
MS Cobra	70.5	13.5	3.5	4.6	69.9	10.7	80.1	1206
MS Rancho	68.8	13.0	3.0	4.2	68.8	8.2	78.2	1094
MT 2030	71.4	13.4	2.6	4.0	67.7	9.0	77.1	1081
MT 2049	71.7	13.5	2.3	4.2	68.1	11.2	77.3	1116
MT 2050	69.4	13.0	2.3	3.0	65.9	5.4	74.8	1008
MT 2063	67.1	13.2	<u>4.1</u>	6.0	67.9	12.7	78.7	1118
MT CARLSON	68.9	13.4	2.8	3.6	67.7	8.1	77.2	1128
MT DUTTON	70.6	13.1	2.1	2.9	67.7	5.5	76.7	1121
MT SIDNEY	70.8	13.5	1.9	4.1	66.9	10.6	76.5	1124
NS PRESSER CLP	71.0	13.6	1.9	3.9	66.8	9.2	75.3	1071
REEDER	68.8	13.7	1.9	3.3	67.5	6.7	76.5	1134
ROCKER	69.1	13.9	3.5	6.3	70.1	13.1	80.4	1198
SY 611 CL2	68.1	13.4	2.6	3.5	69.9	6.9	79.3	1076
SY INGMAR	70.5	<u>14.3</u>	3.4	6.0	71.1	14.6	80.2	<u>1207</u>
SY Longmire	69.9	13.7	3.6	5.3	69.5	11.7	79.5	1187
SY Rockford	70.4	12.9	3.0	4.5	67.9	10.0	77.5	1109
THATCHER	69.3	14.0	2.8	4.2	68.6	10.4	78.4	1157
VIDA	71.7	12.9	1.5	3.5	67.2	7.9	76.6	1133
WB 9516	70.2	12.8	2.6	4.8	66.3	10.3	75.4	1054
WB 9719	70.2	13.5	3.9	5.6	69.7	13.3	79.3	1067
WB 9879 CLP	68.6	13.6	2.1	2.5	65.4	3.9	73.4	1047
WB GUNNISON	68.0	12.6	3.8	<u>7.6</u>	67.1	15.4	78.2	1133
MEAN (n=32)	69.9	13.5	2.9	4.7	68.4	10.3	77.9	1117
CV	1.6	4.7	25.3	27.4	3.2	26.9	3.2	6.2
PAROBA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD	1.1	0.6	0.7	1.3	2.2	2.7	2.4	69

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

2020-2023 ADVANCED SPRING WHEAT NURSERY, BOZEMAN (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023
MT DUTTON	98.1	95.4	112.5	133.9	59.3	59.4	59.9	60.5	15.1	15.0	14.8	14.2
MT CARLSON	96.4	95.5	110.3	131.7	61.5	61.2	61.6	61.4	14.6	14.6	14.8	14.5
SY ROCKFORD	95.1	91.9	108.7	129.1	60.0	59.9	60.8	61.7	14.2	14.1	13.8	12.9
DAGMAR	93.2	91.2	105.4	127.0	61.5	61.5	61.8	62.5	15.3	15.4	15.2	14.6
VIDA	92.6	89.8	104.4	122.1	59.6	59.8	59.9	59.5	14.5	14.4	14.6	14.7
WB 9719	92.6	91.7	108.1	128.1	63.9	63.8	64.3	64.7	14.3	14.4	14.3	13.6
MS RANCHERO	90.4	86.2	99.2	112.0	60.5	60.2	60.8	61.0	14.2	14.4	14.1	14.0
DUCLAIR	90.2	90.2	109.0	132.2	59.8	59.5	60.1	60.4	14.4	14.6	14.6	14.5
MT SIDNEY	90.0	90.2	103.2	128.8	60.8	60.4	60.9	61.0	14.6	14.7	14.7	14.1
LANNING	89.9	88.3	103.4	126.3	60.8	60.5	61.2	61.4	15.4	15.5	15.5	14.9
NS PRESSER CLP	89.2	85.8	99.4	117.0	58.2	58.3	58.1	57.8	15.1	15.1	15.1	15.0
CHOTEAU	87.4	88.1	104.7	125.9	60.6	60.2	60.7	61.1	14.6	14.6	14.6	14.1
REEDER	86.6	86.5	101.7	125.9	61.1	60.9	60.9	61.6	15.1	15.0	15.2	14.4
SY INGMAR	85.4	82.8	97.0	112.4	60.9	60.5	60.8	60.5	15.3	15.4	15.3	15.3
WB 9879 CLP	85.3	85.0	99.3	120.3	60.8	60.7	61.2	61.9	14.9	14.8	14.7	14.0
SY LONGMIRE	84.2	85.3	101.6	123.2	61.0	60.7	61.0	61.2	14.7	14.8	14.6	14.4
SY 611 CL2	82.7	81.5	95.4	113.8	61.2	61.1	61.0	61.3	14.9	15.0	15.1	14.5
CORBIN	81.1	78.3	92.2	107.0	61.1	60.8	61.0	61.1	14.5	14.5	14.7	14.4
WB GUNNISON	81.0	80.2	94.5	109.6	61.4	61.1	61.3	61.9	14.0	14.1	14.0	13.4
McNEAL	77.5	75.8	88.8	106.4	59.7	59.4	59.9	60.8	15.4	15.6	15.9	15.5
MT 2030		96.1	112.3	133.1		60.9	61.6	61.6		15.1	15.1	14.9
LCS ASCENT		95.2	113.8	138.4		61.7	62.6	63.4		14.4	14.0	13.5
MT 2063		94.8	110.9	134.1		60.8	61.1	61.1		14.4	14.1	13.5
WB 9516		92.8	109.5	127.1		61.9	62.2	62.1		13.9	13.9	13.5
ROCKER		92.1	109.2	129.9		60.7	61.0	60.8		15.0	14.9	14.6
MT 2049		91.2	105.8	124.6		59.8	60.4	60.5		14.7	14.7	14.1
MS COBRA		88.8	106.1	130.0		61.3	62.0	62.3		15.0	14.8	14.4
AP GUNSMOKE CL2		84.4	100.0	122.1		59.4	60.0	60.8		15.5	15.3	14.7
AP SMITH		83.5	97.8	120.8		60.0	60.7	61.0		15.3	15.1	14.6
AAC CONCORD		76.6	89.1	110.0		59.9	60.7	61.3		15.8	15.8	15.1
THATCHER		62.0	71.4	83.9		59.0	59.6	60.1		15.7	15.8	15.3
LCS HammerAX			111.3	133.8			61.2	61.4			13.9	13.5
MT 21074			107.9	129.7			62.1	62.9			15.5	15.1
MT 21104			107.9	124.9			60.9	60.3			14.7	14.8
WB 9668			93.0	107.9			59.3	58.9			16.1	15.7
NDHRS14-0134-C03				134.5				60.7				14.3
LCS BOOM				127.8				63.7				14.5
W-2				116.3				59.8				14.2
MEAN	88.4	87.0	102.7	125.0	60.7	60.5	61.0	61.3	14.7	14.8	14.8	14.4
C.V.	5.2	5.4	4.6	5.9	1.0	1.0	0.9	1rep	2.6	2.5	2.3	1rep
F-VALUE (ENTRY)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	1rep	<0.001	<0.001	<0.001	1rep
LSD(0.05)	6.6	7.7	9.6	11.9	0.8	1.0	1.2	1rep	0.5	0.6	0.7	1rep

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

2021-2023 ADVANCED SPRING WHEAT NURSERY, CONRAD (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	YIELD		TEST WEIGHT		PROTEIN	
	(BU/AC)		(LB/BU)		(%)	
	2021, 2023	2023	2021, 2023	2023	2021, 2023	2023
MT CARLSON	58.6	60.4	59.6	59.0	13.8	14.2
WB 9516	55.4	59.1	61.2	61.2	13.0	13.5
DAGMAR	54.6	58.9	60.2	59.5	14.4	14.3
LCS ASCENT	53.6	53.8	60.3	59.4	13.8	13.8
MT 2030	52.8	57.4	59.2	58.6	13.7	14.3
CORBIN	52.3	57.7	60.3	60.0	13.7	13.7
SY ROCKFORD	52.2	57.7	59.1	59.0	13.7	13.8
WB GUNNISON	51.9	58.1	60.6	59.4	13.1	13.8
NS PRESSER CLP	51.3	53.1	58.2	56.3	13.4	14.1
MT DUTTON	51.3	58.9	59.2	58.8	13.2	13.3
ROCKER	50.8	57.3	60.5	60.0	13.5	13.6
MT 2063	50.7	50.5	59.4	58.0	13.5	13.3
LANNING	50.7	56.0	58.7	57.8	13.6	14.2
WB 9719	50.4	56.6	61.5	58.8	12.8	12.9
MT SIDNEY	50.3	53.8	59.6	59.0	13.9	14.2
MT 2049	49.5	52.3	58.5	58.1	14.1	13.8
MS RANCHERO	49.3	47.8	58.4	56.8	14.2	15.2
SY LONGMIRE	49.1	54.5	60.3	59.3	13.5	13.6
REEDER	48.9	51.9	59.9	58.8	13.8	14.3
MS COBRA	48.7	56.1	60.2	59.2	13.7	14.1
SY 611 CL2	48.4	54.5	60.4	58.9	14.0	13.8
WB 9879 CLP	48.4	47.6	58.5	57.2	14.3	14.9
VIDA	47.7	50.5	58.9	57.1	13.8	14.8
AP GUNSMOKE CL2	46.9	53.5	59.6	59.0	15.2	15.4
DUCLAIR	45.2	52.0	58.4	57.3	14.2	14.5
AAC CONCORD	44.9	49.1	58.3	57.7	14.0	14.6
SY INGMAR	44.5	49.0	59.5	58.2	14.5	14.6
CHOTEAU	44.0	44.6	58.0	56.1	13.9	14.6
AP SMITH	43.5	50.3	59.1	58.0	14.6	14.5
McNEAL	42.7	48.9	58.3	56.5	13.7	14.4
THATCHER	36.2	32.6	57.5	56.4	14.1	15.2
LCS BOOM		57.3		61.2		14.0
MT 21104		55.1		57.2		15.1
W-2		55.1		57.9		15.0
MT 21074		55.1		59.4		15.5
WB 9668		52.3		57.8		14.8
NDHRS14-0134-C03		50.9		55.7		14.6
LCS HammerAX		49.2		57.6		13.5
MEAN	49.3	54.7	59.4	58.5	13.8	14.2
C.V.	8.2	10.1	1.4	1.9	3.9	3.8
F-VALUE (ENTRY)	<0.05	<0.001	<0.01	<0.001	ns	<0.001
LSD(0.05)	8.2	8.9	1.7	1.8	-	1.1

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

2020-2023 ADVANCED SPRING WHEAT NURSERY, FORT BENTON (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	YIELD				TEST WEIGHT			PROTEIN			
	(BU/AC)				(LB/BU)			(%)			
	2020-2023	2021-2023	2022-2023	2023	20-21, 2023	2021-2023	2023	2020-2023	2021-2023	2022-2023	2023
MT CARLSON	<u>50.2</u>	48.8	53.0	70.6	58.5	57.7	58.6	15.0	15.0	14.7	14.1
VIDA	48.3	<u>49.6</u>	54.7	<u>76.9</u>	58.6	58.9	59.6	14.7	14.6	14.4	13.8
MT DUTTON	48.1	47.3	50.1	68.5	58.6	58.1	58.5	15.0	15.1	14.7	13.8
NS PRESSER CLP	47.3	45.9	50.0	71.4	57.8	57.2	58.6	15.1	14.7	14.4	13.6
DUCLAIR	47.2	44.2	46.8	63.1	58.2	57.0	58.8	14.7	14.8	14.2	13.5
CHOTEAU	47.0	46.6	50.4	68.6	58.4	58.3	58.9	15.6	15.1	14.7	14.0
WB 9719	46.9	44.8	48.6	68.0	59.5	58.8	61.1	14.7	14.9	14.6	13.4
WB 9879 CLP	46.7	44.6	48.4	65.0	58.2	57.3	58.5	15.7	15.7	15.4	14.6
SY LONGMIRE	46.6	44.9	49.3	68.8	<u>59.9</u>	59.2	60.2	15.4	15.5	15.2	13.6
LANNING	45.9	45.8	51.1	73.6	58.2	57.5	58.8	15.7	16.0	15.8	14.7
DAGMAR	45.0	45.3	48.2	64.6	59.2	58.7	59.4	15.4	15.4	15.1	14.4
WB GUNNISON	44.9	44.7	48.4	65.8	58.9	57.7	59.5	14.3	14.5	13.9	13.1
MT SIDNEY	43.8	43.4	47.5	70.5	58.6	57.3	59.7	15.2	15.3	15.0	13.8
MS RANCHERO	43.3	44.0	49.1	69.7	57.4	56.9	58.1	14.6	14.5	14.2	13.0
McNEAL	42.8	40.8	44.0	59.2	57.7	56.9	58.5	14.9	15.0	14.8	13.8
REEDER	42.7	41.9	45.2	64.8	58.6	58.1	59.1	15.3	15.5	15.2	14.6
CORBIN	42.4	42.1	45.8	65.8	59.4	58.5	59.6	14.9	14.9	14.4	13.5
SY 611 CL2	39.3	42.2	47.9	69.9	55.7	56.7	60.0	15.5	15.3	14.9	13.9
SY ROCKFORD	37.8	37.1	40.3	58.7	56.0	55.0	58.1	14.9	15.1	14.5	13.1
SY INGMAR	37.5	39.3	42.1	61.1	56.9	57.3	59.2	<u>16.0</u>	15.7	15.4	14.5
ROCKER		49.0	52.1	72.5		59.3	60.1		15.0	14.7	13.8
MT 2030		48.8	52.2	73.1		59.4	59.9		15.1	14.9	13.5
MT 2063		47.7	55.3	76.0		56.5	60.0		14.3	13.8	13.0
WB 9516		46.6	50.6	71.7		59.7	60.9		14.2	13.9	13.5
MT 2049		43.9	46.2	60.2		58.6	59.7		15.0	14.6	13.4
AAC CONCORD		41.6	43.6	58.7		57.3	58.3		15.4	15.2	14.8
LCS ASCENT		41.1	43.0	61.1		60.2	60.2		14.1	13.7	12.7
AP GUNSMOKE CL2		40.2	42.9	61.4		58.3	59.1		16.7	16.4	15.2
MS COBRA		39.7	43.2	63.0		58.5	60.1		15.1	14.7	13.9
AP SMITH		38.4	40.3	58.7		57.9	60.0		15.6	15.3	14.5
THATCHER		31.0	33.3	46.9		49.9	56.7		15.3	14.9	14.0
MT 21074			49.9	67.9			59.8			15.7	14.2
MT 21104			49.1	67.9			59.6			15.0	13.6
LCS HammerAX			43.8	64.4			59.5			14.5	12.9
WB 9668			38.2	53.1			58.6			15.7	14.7
W-2				70.1			59.0				13.8
NDHRS14-0134-C03				58.3			56.8				13.5
LCS BOOM				53.2			59.5				13.9
MEAN	44.7	43.7	47.4	65.6	58.2	57.7	59.2	15.1	15.1	14.8	13.9
C.V.	8.1	7.3	7.1	7.1	2.2	3.1	0.9	3.3	2.3	3.1	2.2
F-VALUE (ENTRY)	<0.001	<0.001	<0.001	<0.001	<0.05	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	5.1	5.2	6.8	7.5	2.1	3.6	0.8	0.7	0.6	0.9	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)

2020-2023 ADVANCED SPRING WHEAT NURSERY, HAVRE (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	YIELD (BU/AC)				TEST WEIGHT (LB/BU)				PROTEIN (%)			
	2020- 2023	2021- 2023	2022- 2023	2023	2020- 2023	2021- 2023	2022- 2023	2023	2020- 2023	2021- 2023	2022- 2023	2023
DAGMAR	48.7	41.6	49.7	54.9	59.7	59.2	59.0	58.6	15.6	16.0	15.7	15.9
MT DUTTON	48.2	40.0	46.2	49.0	58.3	57.7	57.1	56.8	15.5	15.9	15.9	16.5
WB GUNNISON	45.4	40.2	46.0	55.1	59.4	58.8	58.9	58.5	14.7	15.0	14.8	15.1
MT CARLSON	45.1	38.3	45.6	48.7	58.4	57.4	57.5	56.4	15.2	15.7	15.5	15.9
VIDA	44.9	38.4	44.8	47.5	58.3	57.7	57.4	56.4	15.2	15.6	15.7	16.6
SY ROCKFORD	44.5	38.6	46.0	55.2	57.9	57.3	57.5	55.8	15.5	16.0	15.9	16.3
WB 9879 CLP	43.2	36.4	42.4	46.3	58.9	58.2	58.5	58.0	15.7	16.1	15.9	15.9
CHOTEAU	42.6	35.4	40.7	43.2	58.0	57.1	56.9	55.4	15.7	16.2	16.1	16.9
LANNING	42.6	35.6	42.5	49.6	57.7	56.9	56.3	55.3	15.7	16.2	16.1	16.6
REEDER	42.1	35.5	42.8	46.6	58.5	57.7	57.4	56.2	15.5	16.0	16.1	16.9
DUCLAIR	41.6	34.3	40.5	41.4	56.9	56.0	55.6	53.3	16.0	16.6	16.6	17.6
WB 9719	41.6	35.1	42.2	44.7	59.6	58.9	58.6	57.1	15.3	15.8	15.8	16.5
SY LONGMIRE	41.0	33.1	38.3	39.6	58.4	57.7	56.9	54.3	16.0	16.7	16.9	18.2
MT SIDNEY	40.8	33.5	38.7	40.6	59.5	58.8	59.3	58.3	15.7	16.1	16.0	16.5
CORBIN	40.8	35.7	39.2	40.6	58.4	57.6	56.7	54.8	16.2	16.7	16.9	18.0
McNEAL	40.6	35.1	42.1	47.4	57.2	56.7	56.4	55.0	15.5	16.0	16.1	16.9
NS PRESSER CLP	40.1	34.7	38.9	37.0	57.2	56.5	55.7	54.5	15.6	16.1	16.5	18.0
SY INGMAR	40.1	34.1	39.5	41.4	59.0	58.3	57.8	55.6	15.8	16.3	16.1	16.9
MS RANCHERO	39.6	34.0	38.8	39.2	58.3	57.7	57.4	57.0	15.3	15.7	15.8	17.0
SY 611 CL2	39.5	32.7	39.7	45.8	59.6	58.9	58.8	58.0	15.3	15.6	15.5	15.7
ROCKER		39.2	44.2	42.8		58.5	58.2	57.0		16.3	16.6	17.9
MT 2049		38.4	44.5	48.9		57.6	57.7	58.4		15.4	15.2	15.2
MT 2063		37.6	44.5	47.2		58.6	58.5	57.1		15.6	15.4	16.0
WB 9516		37.5	44.1	45.5		59.7	59.6	58.6		15.3	15.2	15.8
LCS ASCENT		37.0	44.5	47.6		59.7	59.1	58.0		15.1	14.9	15.5
MT 2030		36.0	42.7	43.0		57.4	56.5	55.4		15.6	15.7	16.5
MS COBRA		35.5	43.5	48.0		59.3	59.4	59.7		15.5	15.1	15.1
AAC CONCORD		35.3	39.6	44.5		57.7	58.0	57.3		16.3	16.4	17.0
AP GUNSMOKE CL2		34.1	39.4	42.8		57.6	57.8	57.3		16.6	16.6	16.5
AP SMITH		32.8	38.2	36.5		57.8	57.5	55.6		16.4	16.4	17.5
THATCHER		27.8	33.6	37.9		55.9	56.2	55.3		16.5	16.5	17.1
MT 21074			45.6	48.5			59.2	58.5			16.8	17.6
MT 21104			45.0	48.6			58.6	58.4			15.7	15.9
LCS HammerAX			43.8	47.3			58.8	58.8			14.4	14.5
WB 9668			39.6	44.5			58.6	57.3			16.7	17.0
NDHRS14-0134-C03				47.1				56.1				16.8
W-2				45.8				54.3				16.8
LCS BOOM				45.8				57.4				15.6
MEAN	42.6	36.0	42.4	46.3	58.5	57.9	57.9	57.0	15.5	16.0	15.9	16.5
C.V.	7.9	9.3	8.4	6.2	1.4	1.7	1.7	1.8	2.8	3.3	3.5	3.3
F-VALUE (ENTRY)	<0.01	<0.01	ns	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.001
LSD(0.05)	4.8	5.5	-	4.7	1.1	1.6	1.9	1.6	0.6	0.8	1.1	0.9

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

2021-2023 ADVANCED SPRING WHEAT NURSERY, HINGHAM (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	YIELD			TEST WEIGHT			PROTEIN		
	(BU/AC)			(LB/BU)			(%)		
	2021-2023	2022-2023	2023	2021-2023	2022-2023	2023	2021-2023	2022-2023	2023
WB GUNNISON	39.6	47.8	60.7	61.3	62.0	64.0	13.0	12.1	10.3
MT DUTTON	39.5	46.9	59.5	60.5	61.5	63.7	13.9	13.4	10.9
VIDA	38.9	44.0	59.5	60.9	61.8	63.5	13.1	13.2	10.9
MT CARLSON	37.7	45.9	58.1	60.9	61.9	63.5	13.2	12.7	11.2
AAC CONCORD	37.6	44.4	59.6	60.5	61.6	63.8	13.3	12.7	10.6
MT 2030	37.4	43.6	62.0	61.3	62.1	63.8	13.6	12.9	10.8
CORBIN	36.6	43.3	59.5	61.3	62.2	63.8	14.0	13.6	11.7
MS RANCHERO	36.5	44.2	59.6	60.8	61.8	63.7	12.5	11.4	9.9
MT 2063	36.3	46.1	61.8	61.0	61.6	62.4	13.7	13.0	11.8
McNEAL	36.1	44.8	61.0	60.4	61.6	63.6	14.1	13.2	10.8
MT 2049	35.6	41.8	57.0	60.4	61.6	63.8	14.2	13.5	11.5
NS PRESSER CLP	35.6	42.1	50.7	60.6	61.6	63.7	12.9	12.3	9.9
REEDER	35.5	42.1	55.4	61.3	62.2	64.1	13.6	13.1	11.5
WB 9719	35.2	42.0	51.1	62.3	62.9	63.2	13.2	12.2	10.9
WB 9879 CLP	34.7	41.4	56.8	60.6	61.8	63.6	14.3	13.6	11.4
DAGMAR	34.6	41.8	54.6	61.0	61.9	63.7	14.2	13.3	11.3
DUCLAIR	34.4	40.8	54.6	60.3	61.4	63.7	14.0	13.6	11.1
WB 9516	34.4	41.4	52.3	61.8	62.8	63.9	13.4	12.5	11.1
LCS ASCENT	34.2	39.5	55.7	62.0	62.6	63.4	13.0	11.9	10.3
ROCKER	34.0	42.3	51.2	61.6	62.5	63.5	13.0	11.9	10.5
SY LONGMIRE	33.9	40.0	56.0	61.7	62.5	64.4	14.1	13.6	11.3
SY 611 CL2	33.7	40.0	55.9	62.2	62.7	64.0	14.2	13.3	11.2
MT SIDNEY	33.6	40.4	51.5	61.2	62.2	63.7	13.8	13.5	11.3
SY INGMAR	32.8	39.5	56.5	62.0	63.0	65.0	14.2	13.4	11.3
CHOTEAU	32.3	39.0	53.6	60.5	61.6	63.4	14.0	13.4	11.1
LANNING	32.2	40.5	53.7	60.8	61.9	63.9	14.3	13.0	10.9
THATCHER	31.6	39.1	54.5	60.3	61.5	63.6	13.1	12.8	11.2
AP SMITH	31.4	40.3	56.2	61.5	62.2	63.8	14.3	13.4	11.8
MS COBRA	30.3	36.1	52.4	61.3	62.2	63.5	13.8	13.0	10.9
AP GUNSMOKE CL2	29.7	37.1	56.5	60.4	61.3	62.7	15.2	14.4	12.1
SY ROCKFORD	29.4	35.7	49.0	60.2	61.2	63.5	13.8	13.2	11.2
MT 21074		41.7	54.9		61.6	62.8		13.1	11.5
WB 9668		41.2	58.8		62.2	62.9		14.9	13.0
LCS HammerAX		40.7	57.5		62.1	63.0		12.5	10.4
MT 21104		39.7	53.5		62.3	64.0		12.9	10.9
LCS BOOM			60.6			62.8			10.8
W-2			59.8			63.2			11.7
NDHRS14-0134-C03			55.6			63.5			11.2
MEAN	34.7	41.6	56.4	61.0	61.9	63.5	13.7	13.0	11.1
C.V.	9.3	8.6	11.8	1.0	1.3	1.3	4.5	4.1	5.7
F-VALUE (ENTRY)	<0.05	ns	ns	<0.001	ns	<0.01	<0.001	<0.001	ns
LSD(0.05)	5.3	-	-	1.0	-	1.3	1.0	1.1	-

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

2020-2023 ADVANCED SPRING WHEAT NURSERY, HUNTLEY (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023
MT CARLSON	<u>75.2</u>	<u>68.0</u>	76.7	96.3	59.7	58.7	59.2	57.8	14.5	14.3	13.4	14.4
MT DUTTON	74.8	67.6	80.4	101.0	58.9	58.0	59.0	57.9	15.0	14.8	13.5	14.1
VIDA	74.8	67.0	79.1	101.3	59.8	59.1	60.1	58.8	14.5	14.3	13.2	13.9
NS PRESSER CLP	74.4	63.4	76.1	97.2	58.1	58.2	58.9	57.8	14.8	14.4	13.1	14.1
DAGMAR	73.9	67.5	79.2	106.3	60.1	59.4	60.0	58.4	15.3	15.1	13.9	15.0
MT SIDNEY	73.9	65.3	77.8	100.5	60.4	59.6	60.2	59.0	14.3	14.1	12.8	13.7
SY LONGMIRE	72.5	66.2	77.5	100.2	60.4	59.5	60.8	60.0	14.9	14.9	13.6	14.2
SY ROCKFORD	72.4	64.2	76.0	104.3	58.9	58.0	58.8	57.4	14.6	14.5	13.2	13.7
DUCLAIR	71.5	64.5	73.2	90.2	58.9	57.9	59.0	58.0	14.6	14.3	13.0	13.8
CHOTEAU	70.3	63.4	75.8	94.8	59.3	58.5	59.0	57.3	14.8	14.7	13.4	14.1
McNEAL	69.3	61.3	74.6	94.9	59.5	58.9	59.6	58.6	15.1	14.8	13.1	14.5
SY 611 CL2	69.0	62.8	73.5	92.9	60.2	59.1	60.8	60.0	14.9	14.7	13.5	14.4
MS RANCHERO	68.9	64.0	78.1	99.3	59.5	58.7	59.5	58.6	14.3	14.1	12.8	13.5
WB 9879 CLP	68.7	62.0	73.2	88.6	59.4	58.6	59.1	57.7	14.9	14.7	13.5	13.9
WB 9719	67.8	58.8	68.8	84.4	<u>61.5</u>	60.3	<u>61.7</u>	<u>61.6</u>	14.4	14.3	13.0	13.5
LANNING	67.3	62.8	71.3	92.2	59.1	58.2	59.1	58.4	<u>15.7</u>	15.4	14.4	<u>15.6</u>
REEDER	66.8	61.6	71.7	90.1	60.2	59.4	60.1	59.4	14.9	14.7	13.6	14.7
SY INGMAR	64.7	56.9	65.3	80.4	60.1	59.1	61.0	59.9	15.4	15.4	13.9	14.6
WB GUNNISON	64.5	58.1	68.3	77.0	60.4	59.5	60.7	59.3	14.1	14.1	12.5	13.0
CORBIN	64.0	57.0	67.5	78.7	60.0	59.1	59.5	57.6	14.5	14.3	12.9	13.6
ROCKER		66.9	79.8	102.1		<u>60.6</u>	61.0	59.7		14.4	13.0	13.7
WB 9516		65.7	78.5	98.2		60.1	60.2	58.7		14.1	13.0	13.4
MT 2030		64.4	75.9	98.6		59.3	59.6	58.7		14.7	13.4	14.1
MT 2049		63.5	69.9	85.6		58.3	59.1	58.4		14.9	14.3	14.5
MT 2063		63.0	74.4	88.6		58.8	59.5	57.4		13.8	12.5	14.2
LCS ASCENT		62.2	75.0	95.8		59.8	60.0	58.3		14.2	12.9	13.5
MS COBRA		62.2	76.6	103.5		59.7	60.2	59.1		14.8	13.1	13.9
AP GUNSMOKE CL2		61.9	73.9	95.0		59.1	60.6	59.4		<u>15.6</u>	14.0	15.0
AP SMITH		61.3	73.6	96.2		58.9	60.7	59.5		15.2	13.9	14.1
AAC CONCORD		53.2	61.5	71.8		58.7	58.8	57.9		15.3	14.1	15.2
THATCHER		45.4	54.3	64.4		57.4	57.7	57.9		14.6	13.0	14.5
MT 21074			<u>80.9</u>	101.5			60.3	58.8			13.6	14.4
WB 9668			76.3	93.1			59.9	58.2			14.2	15.4
MT 21104			74.6	94.0			60.5	59.1			13.2	13.8
LCS HammerAX			72.6	91.3			60.0	58.6			12.5	13.6
NDHRS14-0134-C03				100.5				58.8				14.3
LCS BOOM				93.4				59.7				14.4
W-2				85.6				57.4				14.1
MEAN	70.2	62.4	73.8	95.5	59.7	59.0	59.8	58.5	14.8	14.6	13.4	14.2
C.V.	7.7	9.4	8.4	4.9	1.4	1.6	1.0	0.6	2.6	3.5	3.5	3.8
F-VALUE (ENTRY)	<0.05	<0.05	ns	<0.0001	<0.001	<0.05	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001
LSD(0.05)	7.6	9.6	-	7.6	1.2	1.5	1.3	0.6	0.5	0.8	0.9	0.9

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

2020-2023 ADVANCED SPRING WHEAT NURSERY, MOCCASIN (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023
DAGMAR	<u>40.7</u>	<u>36.4</u>	<u>43.2</u>	<u>47.2</u>	58.7	<u>57.1</u>	57.3	61.5	15.1	15.7	14.9	13.1
MT CARLSON	<u>39.4</u>	<u>35.3</u>	39.3	<u>43.7</u>	57.9	56.1	56.6	59.8	14.9	15.5	14.7	13.4
VIDA	<u>38.2</u>	<u>33.2</u>	37.8	<u>40.6</u>	57.3	55.6	55.6	58.1	15.1	15.8	15.2	14.1
MT DUTTON	<u>38.1</u>	<u>33.1</u>	37.0	<u>40.6</u>	57.3	55.6	56.0	58.7	15.1	15.8	15.0	13.2
LANNING	<u>36.9</u>	<u>33.0</u>	37.5	35.9	58.1	56.5	57.3	60.1	15.3	15.9	15.1	13.8
NS PRESSER CLP	<u>36.8</u>	<u>32.6</u>	35.7	35.8	56.9	55.4	55.8	57.0	15.1	15.5	14.6	13.5
SY ROCKFORD	<u>36.2</u>	<u>32.4</u>	34.7	<u>39.0</u>	57.2	55.4	55.6	57.9	15.3	15.9	15.3	13.5
McNEAL	<u>36.1</u>	<u>32.4</u>	35.8	36.7	57.7	56.2	56.0	57.9	15.4	16.1	15.6	15.0
MT SIDNEY	<u>36.1</u>	<u>32.4</u>	35.8	<u>39.6</u>	58.7	<u>56.9</u>	57.3	60.0	15.2	15.9	15.0	13.4
MS RANCHERO	<u>36.0</u>	<u>31.9</u>	35.4	34.1	58.6	<u>57.4</u>	58.0	61.4	15.1	15.9	15.4	14.7
DUCLAIR	34.7	<u>30.6</u>	34.8	36.7	57.3	55.6	56.1	57.5	15.5	16.4	15.9	14.9
REEDER	34.2	29.6	33.2	36.2	58.4	<u>56.8</u>	56.9	59.8	15.5	16.3	15.6	14.6
SY 611 CL2	33.7	29.5	33.2	<u>39.5</u>	<u>59.4</u>	<u>57.9</u>	58.1	60.2	15.4	16.1	15.5	13.9
WB 9879 CLP	33.3	27.3	29.2	31.9	57.8	56.0	56.2	59.1	15.9	16.6	16.1	14.0
WB GUNNISON	33.2	27.4	30.2	30.4	57.6	55.9	55.5	57.8	15.4	16.1	15.7	14.9
CHOTEAU	32.3	28.0	31.1	33.9	57.4	55.7	56.1	58.8	15.8	16.6	15.9	14.1
CORBIN	31.9	27.6	30.0	35.0	58.3	<u>56.7</u>	56.4	58.8	15.9	16.9	16.4	14.8
WB 9719	31.5	26.6	28.5	38.0	<u>60.1</u>	<u>58.4</u>	58.1	62.2	15.6	16.5	16.3	13.4
SY INGMAR	30.3	26.3	28.3	<u>40.2</u>	58.1	56.2	56.8	59.2	<u>16.7</u>	17.6	17.0	14.5
SY LONGMIRE	30.0	24.9	25.7	33.2	58.3	56.5	56.4	58.4	16.5	17.4	17.0	14.9
MT 2049		<u>36.7</u>	39.9	<u>43.2</u>		56.1	56.7	60.1		15.3	14.7	13.5
MT 2030		<u>35.6</u>	40.0	<u>42.9</u>		56.6	57.1	59.7		15.5	15.0	13.5
MT 2063		<u>35.0</u>	38.7	<u>43.0</u>		56.4	56.4	59.2		15.6	15.0	13.4
MS COBRA		<u>33.9</u>	37.6	<u>43.8</u>		<u>57.4</u>	57.3	60.7		16.0	15.3	13.5
LCS ASCENT		<u>33.5</u>	36.3	38.0		<u>58.2</u>	58.2	61.1		15.4	14.8	13.2
ROCKER		<u>32.8</u>	37.1	35.9		<u>57.7</u>	57.5	59.9		15.9	15.2	14.5
AAC CONCORD		<u>31.9</u>	36.3	36.2		55.8	55.9	58.7		16.5	15.8	14.6
AP SMITH		27.4	29.3	37.1		56.4	56.7	59.3		17.1	16.6	14.7
AP GUNSMOKE CL2		27.2	29.1	37.4		55.7	56.0	58.3		<u>17.7</u>	<u>17.4</u>	15.3
WB 9516		26.2	25.8	<u>39.9</u>		<u>56.9</u>	56.0	61.5		16.8	16.9	14.3
THATCHER		25.5	28.8	29.8		55.0	55.4	57.0		16.9	16.4	<u>15.4</u>
LCS HammerAX			38.3	<u>44.8</u>			57.3	60.0			14.5	13.0
MT 21104			37.3	<u>42.5</u>			56.6	59.6			15.3	13.7
MT 21074			35.3	<u>38.7</u>			57.9	61.4			15.8	14.0
WB 9668			32.8	37.2			56.7	59.6			16.4	14.9
NDHRS14-0134-C03				<u>41.6</u>				59.0				13.9
LCS BOOM				38.2				61.7				13.4
W-2				32.5				58.1				14.9
MEAN	35.0	30.9	34.5	38.9	58.0	56.4	56.7	59.5	15.5	16.2	15.6	14.0
C.V.	10.1	14.1	13.9	13.6	1.5	1.9	2.0	1.4	4.0	4.2	4.7	4.4
F-VALUE (ENTRY)	<0.01	<0.05	ns	<0.05	<0.001	<0.05	ns	<0.001	<0.01	<0.001	<0.05	<0.001
LSD(0.05)	5.0	7.1	-	8.6	1.2	1.8	-	1.4	0.9	1.1	1.5	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)

2020-2023 ADVANCED SPRING WHEAT NURSERY, SIDNEY (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023
NS PRESSER CLP	<u>60.2</u>	64.4	68.8	87.1	60.3	59.6	60.4	60.7	14.0	13.4	12.9	13.3
MT DUTTON	60.0	65.0	71.5	89.5	61.2	60.5	61.5	61.1	14.3	13.6	12.8	12.3
DAGMAR	60.0	65.7	69.5	89.6	62.8	62.5	62.7	61.9	14.8	14.1	14.1	14.0
MT CARLSON	59.6	64.0	68.6	88.1	62.3	62.0	63.3	62.5	13.8	13.3	13.0	13.0
VIDA	59.0	63.2	68.3	86.8	61.5	61.0	61.6	61.5	13.6	12.9	12.5	12.3
MT SIDNEY	56.8	61.9	67.6	86.9	62.1	61.5	62.9	61.6	14.1	13.5	12.7	12.1
LANNING	56.5	62.7	69.7	90.5	61.8	61.3	62.8	62.5	14.8	14.1	13.7	13.6
WB 9719	55.5	59.9	64.6	84.0	64.4	64.1	65.2	65.5	14.2	13.5	13.0	12.7
SY 611 CL2	55.3	61.2	67.1	86.1	62.9	62.3	63.7	63.6	14.8	14.1	13.6	13.1
REEDER	55.3	59.1	63.6	79.6	62.0	61.4	62.3	61.8	14.6	13.9	13.5	13.5
SY ROCKFORD	54.9	60.4	65.0	83.4	61.0	60.4	61.9	60.8	14.1	13.4	12.5	11.8
MS RANCHERO	52.7	57.6	62.7	83.3	62.3	61.9	62.6	62.6	13.5	13.0	12.7	12.4
SY INGMAR	52.5	54.6	57.2	71.9	62.9	62.6	63.9	63.4	14.7	14.2	13.9	13.9
CHOTEAU	52.2	56.7	61.8	78.0	61.2	60.7	61.4	60.7	14.3	13.6	13.0	12.6
SY LONGMIRE	52.0	55.9	62.3	81.4	62.6	62.0	63.2	62.5	14.4	13.8	13.2	12.8
McNEAL	51.9	56.2	63.4	82.5	60.5	60.2	61.6	61.4	14.9	14.4	13.7	13.7
WB 9879 CLP	51.3	56.6	61.7	79.0	61.7	61.4	62.1	60.8	14.8	14.1	13.7	13.5
WB GUNNISON	49.3	54.1	59.3	77.4	62.3	62.1	62.9	62.7	13.8	13.3	12.8	12.3
DUCLAIR	48.8	52.6	58.5	77.5	60.6	60.3	61.5	61.2	14.1	13.6	12.9	12.2
CORBIN	47.6	52.9	57.9	71.6	61.4	60.7	61.3	59.5	14.2	13.8	13.1	12.6
MT 2030		<u>66.7</u>	<u>73.1</u>	<u>92.3</u>		61.5	62.7	61.7		12.9	12.5	12.1
LCS ASCENT		64.4	69.8	90.1		63.3	63.6	62.1		13.1	12.8	12.6
MT 2049		62.6	66.1	82.8		60.6	61.7	61.0		13.5	13.1	12.8
MS COBRA		61.2	67.0	86.6		62.3	63.2	62.7		13.6	13.0	12.2
MT 2063		60.6	64.5	82.1		61.3	62.2	61.5		13.5	13.2	13.3
AP GUNSMOKE CL2		60.6	66.7	87.2		61.2	62.2	61.7		14.1	13.5	13.3
ROCKER		60.3	64.3	81.8		62.2	63.1	63.2		13.9	13.4	13.3
WB 9516		59.9	65.0	81.1		62.7	63.2	62.2		13.1	12.6	12.6
AP SMITH		59.0	64.5	83.3		61.5	62.7	61.8		14.3	13.7	13.5
AAC CONCORD		52.4	57.5	75.5		61.1	62.1	61.6		14.4	13.7	13.3
THATCHER		42.7	45.5	60.6		59.2	60.5	60.4		14.5	13.6	12.9
LCS HammerAX			67.3	88.8			62.8	62.0			12.6	12.1
MT 21104			67.0	80.1			62.8	61.8			12.7	12.5
MT 21074			64.2	83.1			63.3	63.6			13.2	12.7
WB 9668			59.0	76.3			62.1	60.6			14.7	14.4
NDHRS14-0134-C03				87.0				60.3				12.8
LCS BOOM				86.3				62.8				13.0
W-2				76.6				60.5				12.9
MEAN	54.6	59.2	64.5	83.4	61.9	61.5	62.5	61.7	14.3	13.7	13.2	13.0
C.V.	5.2	4.4	4.3	6.8	1.2	1.3	1.2	1.2	3.0	3.3	2.8	4.4
F-VALUE (ENTRY)	<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)	4.0	4.2	5.6	9.1	1.0	1.3	1.5	1.2	0.6	0.7	0.7	0.9

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

2021-2023 ADVANCED SPRING WHEAT NURSERY, WILLISTON (DRY):YIELD, TEST WEIGHT AND PROTEIN

ID	YIELD			TEST WEIGHT			PROTEIN		
	(BU/AC)			(LB/BU)			(%)		
	2021-2023	2022-2023	2023	2021-2023	2022-2023	2023	2021-2023	2022-2023	2023
MT DUTTON	45.0	54.4	52.0	59.5	59.8	60.1	15.4	14.9	15.0
NS PRESSER CLP	43.8	53.6	49.0	58.7	58.7	60.3	14.8	15.0	14.8
LCS ASCENT	43.3	53.1	43.0	61.3	60.8	61.4	14.8	14.8	14.5
MT CARLSON	42.5	54.1	47.7	59.6	59.9	58.9	15.2	14.9	14.5
VIDA	42.4	51.8	45.3	59.4	59.1	59.5	15.2	14.8	14.9
MT 2049	41.6	50.8	40.3	59.5	59.8	60.5	15.1	14.9	14.7
DAGMAR	41.4	49.7	47.7	60.8	61.2	60.3	15.1	14.5	15.0
McNEAL	40.9	51.0	48.3	59.0	59.9	60.2	15.4	15.0	14.8
SY ROCKFORD	40.5	49.0	40.7	59.7	60.4	61.1	14.8	14.6	14.9
ROCKER	40.3	50.4	41.7	60.9	61.2	60.2	15.5	15.1	14.9
SY INGMAR	40.1	50.2	38.7	61.2	61.4	61.6	15.3	14.6	14.9
LANNING	40.1	50.5	44.3	60.0	60.7	60.6	15.4	15.2	14.7
SY 611 CL2	39.9	49.9	49.0	61.6	61.8	62.0	15.2	14.9	13.8
SY LONGMIRE	39.8	49.5	37.3	60.0	59.5	60.1	15.6	15.4	16.0
MT SIDNEY	39.7	47.7	40.7	60.5	60.7	60.7	15.1	14.5	14.6
WB GUNNISON	38.7	48.6	45.3	60.8	61.0	61.7	15.0	14.6	14.5
WB 9719	38.5	47.7	41.3	62.2	62.3	62.1	15.0	14.5	14.4
CHOTEAU	38.4	49.9	42.0	59.4	59.4	59.1	16.3	15.6	15.6
AP GUNSMOKE CL2	37.5	45.7	39.3	60.4	60.9	60.6	15.7	15.4	15.2
DUCLAIR	37.5	47.1	41.7	59.6	60.2	59.6	16.1	15.8	15.3
WB 9516	37.2	44.7	30.7	61.6	61.5	61.4	14.6	14.2	14.2
REEDER	36.6	45.3	34.3	59.3	59.2	60.9	15.4	15.0	14.7
CORBIN	36.6	45.9	39.7	60.4	60.6	60.0	15.8	15.2	14.8
MT 2030	36.1	44.4	35.3	60.1	61.2	60.0	15.0	15.1	14.5
AAC CONCORD	35.9	45.3	43.7	59.1	59.5	60.0	15.7	15.5	14.7
WB 9879 CLP	35.4	42.9	30.3	60.3	60.4	59.6	16.1	15.8	16.0
MS RANCHERO	35.0	43.7	33.7	60.3	61.0	62.0	14.9	14.4	13.9
AP SMITH	34.8	40.8	31.3	60.7	61.0	59.3	15.7	15.7	15.6
MT 2063	34.3	43.5	32.3	60.6	60.9	60.8	15.8	15.2	15.4
MS COBRA	31.3	38.2	30.7	61.3	61.7	60.9	15.4	14.9	14.7
THATCHER	29.4	38.0	30.7	58.1	58.9	59.1	16.0	15.1	15.3
MT 21074		49.7	42.7		61.4	61.2		14.6	15.2
LCS HammerAX		49.3	38.3		60.8	60.3		14.9	14.7
MT 21104		47.0	34.3		61.6	60.9		14.5	14.8
WB 9668		41.2	34.0		59.9	59.4		16.9	17.3
LCS BOOM			45.0			62.4			14.5
W-2			44.3			59.8			15.0
NDHRS14-0134-C03			31.3			58.8			14.6
MEAN	38.5	47.8	41.4	60.2	60.5	60.5	15.4	15.0	15.0
C.V.	10.8	10.4	13.0	1.7	1.9	1.7	3.6	3.4	3.1
F-VALUE (ENTRY)	<0.01	ns	<0.001	<0.001	ns	<0.001	<0.05	<0.05	<0.001
LSD(0.05)	6.8	-	8.7	1.7	-	1.7	0.9	1.0	0.8

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

2022-2023 ADVANCED SPRING WHEAT NURSERY, BOZEMAN (IRRI): YIELD, TEST WEIGHT AND PROTEIN

ID	YIELD		TEST WEIGHT		PROTEIN	
	(BU/AC)		(LB/BU)		(%)	
	2022-2023	2023	2022-2023	2023	2022-2023	2023
WB 9516	<u>129.3</u>	<u>141.1</u>	62.2	61.5	13.7	13.4
LCS ASCENT	128.5	<u>140.6</u>	62.7	62.1	14.0	13.9
MT 21104	125.8	<u>130.3</u>	62.0	61.3	14.5	14.5
MT DUTTON	<u>124.0</u>	<u>136.1</u>	59.5	58.9	15.3	14.9
MT 2063	122.6	127.4	60.4	58.5	13.9	14.4
MT CARLSON	122.3	<u>131.2</u>	61.8	61.2	14.6	14.4
MT 21074	122.1	<u>136.9</u>	62.1	62.7	15.5	15.3
LCS HammerAX	121.9	<u>132.1</u>	62.4	63.1	14.1	14.0
MT SIDNEY	119.5	<u>137.1</u>	61.3	60.5	14.5	13.9
MT 2030	119.5	<u>129.1</u>	61.7	60.9	15.3	15.0
DAGMAR	119.4	<u>133.0</u>	62.0	61.5	15.3	14.8
SY ROCKFORD	118.8	126.4	60.7	60.5	13.8	13.5
DUCLAIR	117.9	122.9	61.4	62.0	14.3	14.4
MT 2049	117.3	127.4	61.0	60.8	14.9	14.6
CHOTEAU	117.1	125.5	59.4	57.5	14.4	14.3
MS COBRA	114.9	120.3	62.5	62.8	14.5	14.4
SY LONGMIRE	114.5	119.0	62.1	62.7	14.5	14.5
AP GUNSMOKE CL2	114.4	118.4	60.9	60.9	15.2	14.8
VIDA	114.2	121.9	59.4	57.9	14.6	14.7
WB 9879 CLP	114.2	119.4	61.3	60.9	14.5	14.2
ROCKER	114.2	118.3	61.4	60.9	14.8	14.6
LANNING	111.8	122.1	61.9	62.5	15.1	14.6
WB 9719	111.1	109.3	64.2	63.4	13.9	13.7
WB GUNNISON	109.4	117.0	62.1	62.6	13.8	13.7
SY 611 CL2	108.7	115.7	62.2	62.5	15.0	14.7
AP SMITH	108.3	121.0	62.6	62.8	14.9	14.6
SY INGMAR	107.4	115.5	62.2	62.8	14.9	14.5
WB 9668	105.7	107.5	61.3	61.4	15.6	15.3
REEDER	104.4	111.8	60.5	59.9	15.2	14.8
NS PRESSER CLP	104.2	105.7	57.7	56.6	14.7	14.4
CORBIN	99.8	98.7	60.3	58.5	14.6	14.2
AAC CONCORD	98.8	110.0	61.0	61.3	15.8	15.3
McNEAL	96.9	100.0	61.6	63.7	15.8	15.3
MS RANCHERO	94.7	84.7	61.0	60.2	14.2	14.2
THATCHER	82.4	88.8	60.2	60.8	15.7	15.1
NDHRS14-0134-C03		134.7		60.9		14.4
W-2		127.1		59.5		14.4
LCS BOOM		121.4		64.8		14.1
MEAN	113.8	123.8	61.4	61.1	14.7	14.5
C.V.	6.5	6.6	1.9	3.3	2.1	1rep
F-VALUE (ENTRY)	<0.001	<0.001	<0.05	<0.001	<0.001	1rep
LSD(0.05)	15.1	13.1	2.4	3.3	0.6	1rep

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

2021-2023 ADVANCED SPRING WHEAT NURSERY, KALISPELL (WET) : YIELD, TEST WEIGHT AND PROTEIN

ID	YIELD (BU/AC)			TEST WEIGHT (LB/BU)			PROTEIN (%)		
	2021- 2023	2022- 2023	2023	2021- 2023	2022- 2023	2023	2021- 2023	2022- 2023	2023
MT CARLSON	<u>108.6</u>	107.8	123.0	61.7	63.0	62.4	11.2	11.1	11.6
MT 2063	107.6	103.5	121.0	61.9	63.0	61.7	10.6	10.5	11.3
MT SIDNEY	106.4	102.7	123.8	61.9	62.7	61.2	11.2	11.1	11.8
WB 9516	105.0	100.2	118.9	62.0	62.7	61.6	11.4	10.8	11.4
MT DUTTON	101.1	99.0	122.7	60.8	61.6	60.9	11.0	11.4	12.0
MT 2049	99.9	92.1	114.5	60.6	61.7	61.7	11.9	11.5	12.0
LCS ASCENT	99.8	99.3	117.9	61.8	62.9	61.7	11.0	11.3	12.3
DAGMAR	98.9	106.4	124.0	61.6	62.7	61.5	11.5	12.0	13.2
MS COBRA	98.1	94.6	117.7	62.1	63.1	62.4	11.7	11.3	11.9
SY 611 CL2	97.4	97.7	123.1	62.7	63.5	63.4	11.1	11.6	12.2
MS RANCHERO	97.1	92.9	103.2	60.7	61.6	60.3	10.9	11.4	12.2
WB GUNNISON	96.9	97.4	116.5	62.3	63.1	63.0	10.9	11.1	11.6
WB 9719	96.7	96.8	120.6	<u>64.2</u>	<u>65.0</u>	<u>64.3</u>	11.1	11.3	12.4
SY LONGMIRE	96.4	95.9	110.6	62.7	63.5	63.1	11.2	11.5	12.4
DUCLAIR	96.2	98.5	103.7	61.0	62.0	61.1	11.1	11.4	12.3
NS PRESSER CLP	95.3	89.4	107.6	60.7	61.4	60.1	10.9	10.7	11.4
CHOTEAU	94.8	99.9	121.2	61.2	62.1	60.8	11.2	11.6	12.9
CORBIN	94.5	92.4	105.9	61.9	62.9	62.2	10.9	11.3	12.7
AP SMITH	94.4	92.5	106.3	62.2	63.1	62.5	<u>12.3</u>	12.2	13.0
MT 2030	94.1	90.1	98.2	60.5	61.5	60.6	11.4	11.6	12.4
SY ROCKFORD	92.7	87.5	92.0	60.1	61.2	59.8	11.4	11.4	11.9
AP GUNSMOKE CL2	91.9	93.1	105.9	61.4	62.6	62.4	11.3	11.8	12.5
ROCKER	91.2	87.7	95.2	62.0	62.7	61.7	11.2	11.4	12.5
VIDA	91.1	89.2	108.9	61.4	62.3	61.3	10.9	11.1	12.0
REEDER	91.0	88.9	111.4	62.3	62.8	62.3	11.7	11.9	12.8
LANNING	90.2	87.6	109.1	61.4	62.2	61.7	11.7	12.0	12.8
WB 9879 CLP	88.9	91.1	104.2	61.2	62.1	60.4	11.3	11.7	12.9
SY INGMAR	87.8	87.6	98.0	62.7	63.5	62.9	12.1	<u>12.6</u>	<u>13.8</u>
McNEAL	85.7	82.6	100.0	61.6	62.3	61.8	11.1	11.2	11.4
AAC CONCORD	85.2	88.2	101.5	61.0	62.1	61.7	11.4	12.0	12.8
THATCHER	80.1	76.2	97.0	61.1	62.2	61.8	11.5	11.3	11.8
LCS HammerAX		<u>111.5</u>	116.2		62.6	62.2		11.0	11.8
MT 21104		103.3	117.9		63.0	62.3		10.9	11.3
MT 21074		91.5	100.9		63.1	62.3		11.8	12.7
WB 9668		83.9	93.9		62.5	60.9		12.1	13.3
LCS BOOM			114.4			63.6			12.8
W-2			104.9			61.1			12.4
NDHRS14-0134-C03			98.7			60.1			11.0
MEAN	95.3	94.4	110.9	61.6	62.5	61.6	11.3	11.5	12.3
C.V.	8.3	9.0	9.6	0.9	1.0	0.5	5.2	3.2	3.4
F-VALUE (ENTRY)	<0.05	ns	<0.001	<0.001	<0.001	<0.001	ns	<0.001	<0.001
LSD(0.05)	13.0	-	17.2	0.9	1.2	0.5	-	0.7	0.7

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

2020-2023 ADVANCED SPRING WHEAT NURSERY, SIDNEY (IRRI) : YIELD, TEST WEIGHT AND PROTEIN

ID	YIELD				TEST WEIGHT				PROTEIN			
	(BU/AC)				(LB/BU)				(%)			
	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023	2020-2023	2021-2023	2022-2023	2023
MT DUTTON	<u>96.9</u>	93.9	106.9	125.7	62.7	62.6	62.5	61.9	14.4	14.1	14.1	13.8
DAGMAR	95.5	95.6	106.4	124.2	63.5	63.4	63.5	62.2	<u>15.3</u>	15.0	15.1	15.8
SY LONGMIRE	95.5	93.8	106.6	121.1	63.7	63.4	63.8	62.5	14.3	14.1	14.2	14.1
SY 611 CL2	95.5	92.7	107.1	122.6	64.1	63.9	64.5	63.7	14.5	14.4	14.4	14.6
WB 9719	95.4	95.8	107.8	121.9	<u>66.0</u>	<u>66.0</u>	<u>66.2</u>	<u>65.3</u>	14.0	13.8	13.9	13.8
MS RANCHERO	95.2	91.8	106.3	120.8	63.4	63.4	64.0	63.6	13.5	13.3	13.0	12.4
MT SIDNEY	94.4	93.2	105.9	129.7	63.9	63.6	63.9	62.4	14.1	13.9	14.0	13.6
VIDA	93.9	93.0	102.0	122.1	63.0	63.0	62.8	62.1	14.0	13.7	13.9	13.7
SY ROCKFORD	93.1	92.3	104.2	120.5	62.4	62.2	62.1	60.3	14.0	13.8	13.8	13.3
MT CARLSON	93.0	91.2	103.7	117.9	62.8	62.5	63.0	61.4	14.2	13.9	13.9	13.9
REEDER	92.3	92.0	101.5	120.6	63.5	63.4	63.8	63.1	14.4	14.2	14.0	13.7
LANNING	91.7	89.2	103.2	118.6	62.2	61.9	62.8	61.8	15.1	14.8	14.5	14.4
NS PRESSER CLP	91.7	92.7	100.4	119.7	62.2	62.3	61.7	61.5	13.7	13.4	13.6	13.2
SY INGMAR	89.7	86.2	97.7	106.9	64.2	63.9	64.5	63.3	14.6	14.4	14.3	14.5
DUCLAIR	89.2	89.7	103.3	116.7	62.0	61.8	62.2	60.9	14.2	14.0	13.8	13.7
WB 9879 CLP	88.3	88.9	101.5	116.8	63.0	62.9	63.1	61.3	14.3	14.0	13.5	13.6
CHOTEAU	88.2	88.4	100.9	116.3	62.6	62.6	62.7	61.4	14.4	14.0	13.8	13.6
McNEAL	86.5	86.9	99.8	116.0	62.0	61.9	62.4	61.0	14.8	14.6	14.1	14.1
WB GUNNISON	82.7	80.5	87.8	99.3	63.6	63.5	63.4	62.9	13.7	13.5	13.5	13.1
CORBIN	82.3	79.0	90.5	102.2	63.0	62.6	62.3	60.4	14.5	14.4	14.0	13.7
WB 9516		<u>97.5</u>	109.6	127.7		64.7	64.3	62.8		13.4	13.2	13.3
ROCKER		96.8	<u>109.7</u>	126.7		63.4	63.2	62.1		13.8	13.8	13.5
MT 2030		96.3	108.9	122.6		62.8	63.0	61.7		14.3	14.1	14.1
LCS ASCENT		94.9	107.1	120.5		64.1	64.0	62.2		13.6	13.7	13.8
AP GUNSMOKE CL2		93.7	108.6	124.1		63.0	63.3	62.2		14.8	15.0	14.7
MS COBRA		91.8	107.4	122.4		63.6	63.6	62.3		14.5	14.4	14.1
MT 2049		91.5	100.2	113.8		62.6	62.8	62.0		14.5	14.6	14.6
AP SMITH		89.2	100.3	116.2		63.4	63.8	62.8		14.2	13.9	13.6
MT 2063		88.1	96.6	107.4		63.0	62.8	61.1		13.2	13.4	13.9
AAC CONCORD		77.5	88.8	98.2		62.7	62.8	61.6		<u>15.2</u>	14.9	14.5
THATCHER		75.9	86.6	97.5		62.4	62.8	61.7		14.4	14.2	13.8
MT 21104			107.6	124.2			63.8	62.7			13.9	13.9
LCS HammerAX			106.4	122.3			63.4	62.1			14.2	14.5
MT 21074			98.0	111.4			63.3	61.9			14.7	15.0
WB 9668			93.5	105.3			62.5	60.6			<u>15.6</u>	<u>16.0</u>
NDHRS14-0134-C03				<u>133.7</u>				62.2				13.5
LCS BOOM				122.4				63.2				14.3
W-2				104.0				60.5				13.5
MEAN	91.5	90.4	102.3	119.3	63.2	63.1	63.3	62.0	14.3	14.1	14.1	14.1
C.V.	5.5	5.3	4.2	4.0	1.1	1.2	0.9	0.8	2.9	3.1	2.9	3.6
F-VALUE (ENTRY)	<0.001	<0.00	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	7.1	7.8	8.6	7.6	1.0	1.2	1.2	0.8	0.6	0.7	0.8	0.8

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

2023 OVERALL AGRONOMIC SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN UNDER RAIN-FED CONDITION

(BOZEMAN, HUNTLEY, MOCCASIN, FORT BENTON, HAVRE, SIDNEY-DRY, CONRAD, WILLISTON, HINGHAM)

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
MT DUTTON	72.5	59.6	13.7	173.0	31.2
DAGMAR	72.3	60.6	14.2	171.2	31.9
MT CARLSON	71.7	59.8	13.9	172.4	30.0
MT 2030	70.9	59.9	13.8	173.0	30.6
VIDA	70.1	59.3	14.0	173.8	31.4
LCS ASCENT	69.3	60.8	13.3	170.6	30.1
LANNING	69.1	59.9	14.3	172.8	30.3
MT 21074	69.1	60.9	14.5	174.8	30.2
SY ROCKFORD	68.6	59.5	13.5	175.4	30.4
MT 2063	68.4	59.7	13.8	171.9	30.6
LCS HammerAX	68.4	60.1	13.1	172.5	29.4
ROCKER	68.4	60.5	14.1	174.6	30.1
MS COBRA	68.2	60.9	13.6	172.5	30.5
MT SIDNEY	68.1	60.3	13.7	171.8	31.1
LCS BOOM	67.5	61.2	13.8	170.5	29.8
SY 611 CL2	67.5	60.9	13.8	172.9	28.0
NDHRS14-0134-C03	67.4	58.9	14.0	171.8	31.0
WB 9516	67.3	61.2	13.5	173.4	29.8
MT 21104	66.8	60.1	13.9	173.7	30.5
NS PRESSER CLP	66.5	58.5	14.0	176.2	32.4
WB 9719	66.2	61.8	13.5	174.3	28.9
AP GUNSMOKE CL2	66.1	59.9	14.7	173.4	29.8
MT 2049	66.1	60.1	13.7	170.1	30.1
SY LONGMIRE	66.0	60.0	14.3	173.0	28.8
DUCLAIR	65.5	58.9	14.2	171.6	31.0
W-2	65.1	58.9	14.3	171.4	30.7
McNEAL	65.0	59.2	14.4	175.4	32.5
REEDER	65.0	60.2	14.4	173.3	32.2
CHOTEAU	65.0	59.0	14.1	173.3	30.7
WB GUNNISON	64.4	60.5	13.4	173.4	29.0
MS RANCHERO	64.3	60.1	13.7	177.1	33.6
AP SMITH	63.4	59.8	14.5	174.5	27.3
WB 9879 CLP	62.9	59.6	14.2	173.9	29.0
WB 9668	61.9	59.3	15.2	170.6	25.7
CORBIN	61.7	59.5	14.1	171.5	30.6
SY INGMAR	61.3	60.3	14.5	175.6	28.9
AAC CONCORD	61.0	59.6	14.4	174.9	37.0
THATCHER	49.0	58.5	14.5	175.5	40.1
MEAN	67.5	60.0	14.1	172.9	30.9
C.V.	7.7	1.4	3.4	0.5	4.0
PROBABILITY(LINE)	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	4.8	0.8	0.4	1.1	1.2

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

2023 OVERALL AGRONOMIC SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN UNDER IRRIGATED / HIGH RAINFALL CONDITION (KALISPELL, BOZEMAN-IRRIGATED, SIDNEY-IRRIGATED)

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
MT SIDNEY	130.2	61.4	13.1	172.1	35.5
WB 9516	129.2	62.0	12.7	175.1	33.0
MT DUTTON	128.2	60.6	13.6	174.1	35.6
DAGMAR	127.1	61.7	14.6	172.1	36.3
LCS ASCENT	126.3	62.0	13.3	170.6	34.9
MT 21104	124.1	62.1	13.2	174.5	34.3
MT CARLSON	124.0	61.7	13.3	173.7	33.8
LCS HammerAX	123.5	62.5	13.4	173.0	33.2
NDHRS14-0134-C03	122.4	61.1	13.0	173.0	35.7
CHOTEAU	121.0	59.9	13.6	173.9	34.6
SY 611 CL2	120.5	63.2	13.8	172.8	31.5
MS COBRA	120.1	62.5	13.5	172.8	34.3
LCS BOOM	119.4	63.9	13.7	170.0	33.9
MT 2063	118.6	60.4	13.2	172.9	34.3
MT 2049	118.6	61.5	13.7	169.7	32.9
VIDA	117.6	60.4	13.5	175.2	35.6
WB 9719	117.3	64.3	13.3	175.7	31.9
SY LONGMIRE	116.9	62.8	13.7	174.0	33.9
MT 2030	116.6	61.1	13.8	173.5	34.8
LANNING	116.6	62.0	13.9	174.0	34.1
MT 21074	116.4	62.3	14.3	175.5	34.2
AP GUNSMOKE CL2	116.1	61.8	14.0	173.7	34.0
REEDER	114.6	61.8	13.8	175.3	38.6
AP SMITH	114.5	62.7	13.7	175.4	31.7
DUCLAIR	114.4	61.3	13.5	172.0	35.3
WB 9879 CLP	113.5	60.9	13.6	175.0	34.9
ROCKER	113.4	61.6	13.5	176.5	34.6
SY ROCKFORD	113.0	60.2	12.9	176.2	35.7
W-2	112.0	60.4	13.4	172.5	35.6
NS PRESSER CLP	111.0	59.4	13.0	178.3	38.0
WB GUNNISON	110.9	62.8	12.8	174.4	32.4
SY INGMAR	106.8	63.0	14.3	175.4	33.1
McNEAL	105.3	62.2	13.6	176.1	36.5
AAC CONCORD	103.2	61.5	14.2	175.8	41.4
MS RANCHERO	102.9	61.4	12.9	179.9	41.0
CORBIN	102.3	60.4	13.5	172.7	34.7
WB 9668	102.2	61.0	14.9	170.3	27.0
THATCHER	94.4	61.4	13.6	177.4	46.4
MEAN	118.0	61.6	13.6	173.8	35.2
C.V.	6.4	1.5	3.2	0.4	3.0
PROBABILITY(LINE)	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	12.2	1.5	0.7	1.2	1.7

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

**2023 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 DUTTON	86.5	59.8	13.7	173.4	32.4
DAGMAR	86.0	60.9	14.3	171.5	33.1
MT CARLSON	84.8	60.2	13.8	172.8	31.1
MT SIDNEY	83.6	60.6	13.6	171.9	32.3
LCS ASCENT	83.5	61.1	13.3	170.6	31.4
WB 9516	82.8	61.4	13.3	174.0	30.7
MT 2030	82.3	60.2	13.8	173.2	31.7
LCS HammerAX	82.2	60.7	13.2	172.7	30.4
VIDA	82.0	59.6	13.9	174.3	32.5
MS COBRA	81.2	61.3	13.6	172.6	31.6
NDHRS14-0134-C03	81.2	59.4	13.7	172.2	32.3
MT 21104	81.1	60.6	13.7	174.0	31.5
LANNING	81.0	60.4	14.2	173.2	31.4
MT 2063	81.0	59.9	13.6	172.2	31.6
MT 21074	80.9	61.3	14.4	175.0	31.3
SY 611 CL2	80.7	61.5	13.8	172.9	28.9
LCS BOOM	80.5	61.9	13.8	170.3	30.9
SY ROCKFORD	79.7	59.7	13.3	175.6	31.9
ROCKER	79.6	60.8	14.0	175.2	31.3
MT 2049	79.2	60.4	13.7	169.9	30.8
WB 9719	79.0	62.4	13.4	174.7	29.7
CHOTEAU	79.0	59.2	14.0	173.5	31.8
SY LONGMIRE	78.7	60.7	14.2	173.3	30.2
AP GUNSMOKE CL2	78.6	60.4	14.6	173.5	30.9
DUCLAIR	77.7	59.5	14.0	171.7	32.2
NS PRESSER CLP	77.6	58.7	13.8	176.9	33.9
REEDER	77.4	60.6	14.2	174.0	34.0
W-2	76.8	59.3	14.1	171.8	32.1
AP SMITH	76.2	60.5	14.3	174.8	28.5
WB GUNNISON	76.0	61.1	13.2	173.7	29.9
WB 9879 CLP	75.5	59.9	14.1	174.3	30.6
McNEAL	75.1	59.9	14.2	175.6	33.6
MS RANCHERO	74.0	60.4	13.5	178.0	35.6
SY INGMAR	72.7	61.0	14.4	175.6	30.1
WB 9668	72.0	59.7	15.2	170.5	26.1
CORBIN	71.9	59.7	14.0	171.9	31.7
AAC CONCORD	71.6	60.1	14.4	175.2	38.2
THATCHER	60.4	59.2	14.3	176.1	41.8
MEAN	80.1	60.4	14.0	173.2	32.1
C.V.	7.4	1.5	3.4	0.5	3.8
PROBABILITY(LINE)	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	4.8	0.7	0.4	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)

2023 ADVANCED SPRING WHEAT NURSERY, BOZEMAN (DRY)

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)	SREM SOLIDNES S(5-25)	GLD (DAYS)
LCS ASCENT	138.4	63.4	13.5	178.7	35.9	7.1	47.3
NDHRS14-0134-C03	134.5	60.7	14.3	180.7	36.2	8.9	43.7
MT 2063	134.1	61.1	13.5	180.7	35.7	12.3	37.3
MT DUTTON	133.9	60.5	14.2	183.0	35.1	10.1	42.7
LCS HammerAX	133.8	61.4	13.5	182.0	34.8	9.2	42.3
MT 2030	133.1	61.6	14.9	182.7	35.3	12.3	40.3
DUCLAIR	132.2	60.4	14.5	180.7	36.0	19.5	38.3
MT CARLSON	131.7	61.4	14.5	181.7	34.4	16.3	39.3
MS COBRA	130.0	62.3	14.4	182.7	35.2	8.6	42.0
ROCKER	129.9	60.8	14.6	183.7	34.3	10.8	41.3
MT 21074	129.7	62.9	15.1	184.0	35.7	15.1	41.7
SY ROCKFORD	129.1	61.7	12.9	185.7	36.1	8.4	38.0
MT SIDNEY	128.8	61.0	14.1	180.3	35.9	8.8	45.3
WB 9719	128.1	64.7	13.6	184.0	33.5	7.5	42.0
LCS BOOM	127.8	63.7	14.5	178.7	35.7	8.0	46.7
WB 9516	127.1	62.1	13.5	183.0	33.3	8.7	43.7
DAGMAR	127.0	62.5	14.6	179.7	36.7	16.3	42.3
LANNING	126.3	61.4	14.9	183.0	35.5	8.2	41.0
REEDER	125.9	61.6	14.4	182.7	38.4	7.9	46.3
CHOTEAU	125.9	61.1	14.1	182.3	35.3	23.6	40.3
MT 21104	124.9	60.3	14.8	183.7	34.8	15.9	36.7
MT 2049	124.6	60.5	14.1	178.0	36.4	14.1	41.0
SY LONGMIRE	123.2	61.2	14.4	182.3	33.0	20.5	39.3
AP GUNSMOKE CL2	122.1	60.8	14.7	181.3	34.9	7.5	38.0
VIDA	122.1	59.5	14.7	184.7	35.8	13.2	42.3
AP SMITH	120.8	61.0	14.6	183.0	33.1	11.8	42.0
WB 9879 CLP	120.3	61.9	14.0	183.3	35.0	21.8	40.3
NS PRESSER CLP	117.0	57.8	15.0	185.7	38.7	7.7	42.0
W-2	116.3	59.8	14.2	179.7	33.7	23.6	43.3
SY 611 CL2	113.8	61.3	14.5	182.0	32.0	9.8	39.3
SY INGMAR	112.4	60.5	15.3	184.7	33.5	11.2	37.7
MS RANCHERO	112.0	61.0	14.0	188.0	43.5	6.8	40.0
AAC CONCORD	110.0	61.3	15.1	185.7	44.1	20.2	37.3
WB GUNNISON	109.6	61.9	13.4	181.3	33.7	9.9	41.3
WB 9668	107.9	58.9	15.7	178.0	29.4	10.3	39.7
CORBIN	107.0	61.1	14.4	179.3	35.8	12.8	44.7
McNEAL	106.4	60.8	15.5	184.7	38.4	8.1	39.0
THATCHER	83.9	60.1	15.3	187.0	49.9	8.0	36.7
MEAN (n=64)	125.0	61.3	14.4	182.2	36.0	13.6	41.6
C.V.	5.9	1rep	1rep	0.3	2.8	14.0	4.5
PROBABILITY(LINE)	<0.001	1rep	1rep	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	11.9	1rep	1rep	0.9	1.6	3.1	3.1

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

2023 ADVANCED SPRING WHEAT NURSERY, CONRAD (DRY), (Collaborator : Nutrien)

ID	YIELD	TEST	PROTEIN
	(BU/AC)	WEIGHT (LB/BU)	(%)
MT CARLSON	60.4	59.0	14.2
WB 9516	59.1	61.2	13.5
MT DUTTON	58.9	58.8	13.3
DAGMAR	58.9	59.5	14.3
WB GUNNISON	58.1	59.4	13.8
CORBIN	57.7	60.0	13.7
SY ROCKFORD	57.7	59.0	13.8
MT 2030	57.4	58.6	14.3
ROCKER	57.3	60.0	13.6
LCS BOOM	57.3	61.2	14.0
WB 9719	56.6	58.8	12.9
MS COBRA	56.1	59.2	14.1
LANNING	56.0	57.8	14.2
MT 21104	55.1	57.2	15.1
W-2	55.1	57.9	15.0
MT 21074	55.1	59.4	15.5
SY 611 CL2	54.5	58.9	13.8
SY LONGMIRE	54.5	59.3	13.6
MT SIDNEY	53.8	59.0	14.2
LCS ASCENT	53.8	59.4	13.8
AP GUNSMOKE CL2	53.5	59.0	15.4
NS PRESSER CLP	53.1	56.3	14.1
WB 9668	52.3	57.8	14.8
MT 2049	52.3	58.1	13.8
DUCLAIR	52.0	57.3	14.5
REEDER	51.9	58.8	14.3
NDHRS14-0134-C03	50.9	55.7	14.6
VIDA	50.5	57.1	14.8
MT 2063	50.5	58.0	13.3
AP SMITH	50.3	58.0	14.5
LCS HammerAX	49.2	57.6	13.5
AAC CONCORD	49.1	57.7	14.6
SY INGMAR	49.0	58.2	14.6
McNEAL	48.9	56.5	14.4
MS RANCHERO	47.8	56.8	15.2
WB 9879 CLP	47.6	57.2	14.9
CHOTEAU	44.6	56.1	14.6
THATCHER	32.6	56.4	15.2
MEAN (n=64)	54.7	58.5	14.2
C.V.	10.1	1.9	3.8
PROBABILITY(LINE)	<0.001	<0.001	<0.001
LSD(0.05)	8.9	1.8	1.1

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

2023 ADVANCED SPRING WHEAT NURSERY, FORT BENTON (DRY), (Collaborator : Nutrien)

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
VIDA	<u>76.9</u>	59.6	13.8	33.0
MT 2063	76.0	60.0	13.0	33.5
LANNING	73.6	58.8	14.7	32.5
MT 2030	73.1	59.9	13.5	32.0
ROCKER	72.5	60.1	13.8	31.0
WB 9516	71.7	60.9	13.5	31.5
NS PRESSER CLP	71.4	58.6	13.6	34.0
MT CARLSON	70.6	58.6	14.1	32.0
MT SIDNEY	70.5	59.7	13.8	32.0
W-2	70.1	59.0	13.8	32.0
SY 611 CL2	69.9	60.0	13.9	29.0
MS RANCHERO	69.7	58.1	13.0	39.5
SY LONGMIRE	68.8	60.2	13.6	30.5
CHOTEAU	68.6	58.9	14.0	33.0
MT DUTTON	68.5	58.5	13.8	33.0
WB 9719	68.0	61.1	13.4	30.5
MT 21104	67.9	59.6	13.6	32.5
MT 21074	67.9	59.8	14.2	32.0
CORBIN	65.8	59.6	13.5	33.0
WB GUNNISON	65.8	59.5	13.1	30.5
WB 9879 CLP	65.0	58.5	14.6	29.5
REEDER	64.8	59.1	14.6	35.0
DAGMAR	64.6	59.4	14.4	32.5
LCS HammerAX	64.4	59.5	12.9	31.0
DUCLAIR	63.1	58.8	13.5	31.5
MS COBRA	63.0	60.1	13.9	32.5
AP GUNSMOKE CL2	61.4	59.1	<u>15.2</u>	30.5
SY INGMAR	61.1	59.2	14.5	29.0
LCS ASCENT	61.1	60.2	12.7	30.5
MT 2049	60.2	59.7	13.4	31.5
McNEAL	59.2	58.5	13.8	33.5
SY ROCKFORD	58.7	58.1	13.1	30.0
AAC CONCORD	58.7	58.3	14.8	40.0
AP SMITH	58.7	60.0	14.5	28.5
NDHRS14-0134-C03	58.3	56.8	13.5	31.0
LCS BOOM	53.2	59.5	13.9	30.5
WB 9668	53.1	58.6	14.7	27.0
THATCHER	46.9	56.7	14.0	41.5
MEAN (n=64)	65.6	59.2	13.9	32.6
C.V.	7.1	0.9	2.2	3.6
PROBABILITY(LINE)	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	7.5	0.8	0.6	2.3

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

2023 ADVANCED SPRING WHEAT NURSERY, HAVRE (DRY), (Collaborator:Peggy Lamb, NARC)

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)	GLD (days)
SY ROCKFORD	55.2	55.8	16.3	172.7	29.8	28.0
WB GUNNISON	55.1	58.5	15.1	171.0	28.4	30.3
DAGMAR	54.9	58.6	15.9	168.3	30.4	30.7
LANNING	49.6	55.3	16.6	171.0	29.2	29.0
MT DUTTON	49.0	56.8	16.5	171.3	29.6	29.3
MT 2049	48.9	58.4	15.2	166.0	29.2	32.3
MT CARLSON	48.7	56.4	15.9	170.0	29.8	28.3
MT 21104	48.6	58.4	15.9	171.7	28.8	28.7
MT 21074	48.5	58.5	17.6	172.0	27.1	28.7
MS COBRA	48.0	59.7	15.1	169.0	28.6	31.7
LCS ASCENT	47.6	58.0	15.5	166.3	28.9	32.3
VIDA	47.5	56.4	16.6	172.3	29.3	28.7
McNEAL	47.4	55.0	16.9	172.7	29.3	28.0
LCS HammerAX	47.3	58.8	14.5	169.3	27.1	29.7
MT 2063	47.2	57.1	16.0	168.7	30.3	31.0
NDHRS14-0134-C03	47.1	56.1	16.8	169.7	29.9	29.3
REEDER	46.6	56.2	16.9	172.3	30.8	28.7
WB 9879 CLP	46.3	58.0	15.9	171.7	28.9	28.3
W-2	45.8	54.3	16.8	167.0	30.0	32.0
SY 611 CL2	45.8	58.0	15.7	171.0	26.0	30.3
LCS BOOM	45.8	57.4	15.6	167.0	28.4	31.0
WB 9516	45.5	58.6	15.8	171.3	30.0	30.3
WB 9719	44.7	57.1	16.5	172.3	28.6	29.0
AAC CONCORD	44.5	57.3	17.0	171.3	33.7	27.7
WB 9668	44.5	57.3	17.0	166.3	26.4	33.0
CHOTEAU	43.2	55.4	16.9	171.0	28.7	28.0
MT 2030	43.0	55.4	16.5	171.7	29.0	28.0
ROCKER	42.8	57.0	17.9	172.0	27.7	29.7
AP GUNSMOKE CL2	42.8	57.3	16.5	172.3	27.7	28.3
DUCLAIR	41.4	53.3	17.6	168.3	30.0	30.0
SY INGMAR	41.4	55.6	16.9	172.7	26.6	27.3
CORBIN	40.6	54.8	18.0	168.0	29.6	30.0
MT SIDNEY	40.6	58.3	16.5	169.7	29.5	29.3
SY LONGMIRE	39.6	54.3	18.2	169.3	28.0	29.0
MS RANCHERO	39.2	57.0	17.0	175.7	30.0	26.7
THATCHER	37.9	55.3	17.1	172.3	36.3	28.7
NS PRESSER CLP	37.0	54.5	18.0	174.3	26.8	27.3
AP SMITH	36.5	55.6	17.5	172.7	25.6	27.0
MEAN (n=64)	46.3	57.0	16.5	170.2	29.5	29.5
C.V.	6.2	1.8	3.3	0.6	3.7	4.4
PROBABILITY(LINE)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	4.7	1.6	0.9	1.6	1.7	2.1

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

2023 ADVANCED SPRING WHEAT NURSERY, HINGHAM (DRY), (Collaborator : 2nd Nature Seeds)

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
MT 2030	62.0	63.8	10.8	28.0
MT 2063	61.8	62.4	11.8	27.3
McNEAL	61.0	63.6	10.8	29.7
WB GUNNISON	60.7	64.0	10.3	26.7
LCS BOOM	60.6	62.8	10.8	26.0
W-2	59.8	63.2	11.7	29.7
MS RANCHERO	59.6	63.7	9.9	31.0
AAC CONCORD	59.6	63.8	10.6	33.3
CORBIN	59.5	63.8	11.7	28.0
VIDA	59.5	63.5	10.9	28.0
MT DUTTON	59.5	63.7	10.9	28.7
WB 9668	58.8	62.9	13.0	22.3
MT CARLSON	58.1	63.5	11.2	28.0
LCS HammerAX	57.5	63.0	10.4	27.0
MT 2049	57.0	63.8	11.5	29.0
WB 9879 CLP	56.8	63.6	11.4	26.0
SY INGMAR	56.5	65.0	11.3	26.7
AP GUNSMOKE CL2	56.5	62.7	12.1	26.7
AP SMITH	56.2	63.8	11.8	23.7
SY LONGMIRE	56.0	64.4	11.3	26.7
SY 611 CL2	55.9	64.0	11.2	24.7
LCS ASCENT	55.7	63.4	10.3	27.3
NDHRS14-0134-C03	55.6	63.5	11.2	29.3
REEDER	55.4	64.1	11.5	29.3
MT 21074	54.9	62.8	11.5	27.0
DUCLAIR	54.6	63.7	11.1	29.3
DAGMAR	54.6	63.7	11.3	29.3
THATCHER	54.5	63.6	11.2	36.7
LANNING	53.7	63.9	10.9	28.7
CHOTEAU	53.6	63.4	11.1	28.0
MT 21104	53.5	64.0	10.9	26.7
MS COBRA	52.4	63.5	10.9	27.3
WB 9516	52.3	63.9	11.1	27.7
MT SIDNEY	51.5	63.7	11.3	28.0
ROCKER	51.2	63.5	10.5	26.7
WB 9719	51.1	63.2	10.9	26.3
NS PRESSER CLP	50.7	63.7	9.9	30.3
SY ROCKFORD	49.0	63.5	11.2	27.3
MEAN (n=64)	56.4	63.5	11.1	28.0
C.V.	11.8	1.3	5.7	5.6
PROBABILITY(LINE)	ns	<0.01	ns	<0.001
LSD(0.05)	-	1.3	-	2.5

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

2023 ADVANCED SPRING WHEAT NURSERY, HUNTLEY (DRY), (Collaborator: Kent McVay, SARC)

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
DAGMAR	106.3	58.4	15.0	165.0	39.0
SY ROCKFORD	104.3	57.4	13.7	169.0	37.7
MS COBRA	103.5	59.1	13.9	166.7	35.4
ROCKER	102.1	59.7	13.7	167.3	39.7
MT 21074	101.5	58.8	14.4	168.7	37.7
VIDA	101.3	58.8	13.9	166.3	40.3
MT DUTTON	101.0	57.9	14.1	166.7	37.0
MT SIDNEY	100.5	59.0	13.7	165.0	39.3
NDHRS14-0134-C03	100.5	58.8	14.3	165.3	37.8
SY LONGMIRE	100.2	60.0	14.2	167.0	35.8
MS RANCHERO	99.3	58.6	13.5	165.3	39.1
MT 2030	98.6	58.7	14.1	165.3	37.7
WB 9516	98.2	58.7	13.4	167.0	34.8
NS PRESSER CLP	97.2	57.8	14.1	169.7	40.6
MT CARLSON	96.3	57.8	14.4	165.7	35.3
AP SMITH	96.2	59.5	14.1	169.0	35.1
LCS ASCENT	95.8	58.3	13.5	165.0	35.0
AP GUNSMOKE CL2	95.0	59.4	15.0	166.3	37.1
McNEAL	94.9	58.6	14.5	169.7	40.4
CHOTEAU	94.8	57.3	14.1	167.0	38.3
MT 21104	94.0	59.1	13.8	167.7	38.3
LCS BOOM	93.4	59.7	14.4	163.7	35.0
WB 9668	93.1	58.2	15.4	164.7	31.6
SY 611 CL2	92.9	60.0	14.4	166.0	34.9
LANNING	92.2	58.4	15.6	165.3	36.2
LCS HammerAX	91.3	58.6	13.6	167.7	36.3
DUCLAIR	90.2	58.0	13.8	165.3	36.6
REEDER	90.1	59.4	14.7	166.0	40.9
WB 9879 CLP	88.6	57.7	13.9	167.7	32.9
MT 2063	88.6	57.4	14.2	165.3	36.0
MT 2049	85.6	58.4	14.5	164.3	35.6
W-2	85.6	57.4	14.1	165.3	35.6
WB 9719	84.4	61.6	13.5	167.3	34.4
SY INGMAR	80.4	59.9	14.6	168.3	35.3
CORBIN	78.7	57.6	13.6	166.0	37.3
WB GUNNISON	77.0	59.3	13.0	168.3	35.0
AAC CONCORD	71.8	57.9	15.2	169.0	44.6
THATCHER	64.4	57.9	14.5	168.0	53.6
MEAN (n=64)	95.5	58.5	14.2	166.3	37.9
C.V.	4.9	0.6	3.8	0.6	4.3
PROBABILITY(LINE)	<0.0001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	7.6	0.6	0.9	1.7	2.6

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

2023 ADVANCED SPRING WHEAT NURSERY, MOCCASIN (DRY), (Collaborator : Jed Eberly, CARC)

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
DAGMAR	<u>47.2</u>	61.5	13.1	<u>188.0</u>	34.3
LCS HammerAX	44.8	60.0	13.0	<u>188.0</u>	30.3
MS COBRA	43.8	60.7	13.5	189.0	33.0
MT CARLSON	43.7	59.8	13.4	<u>188.0</u>	32.0
MT 2049	43.2	60.1	13.5	<u>188.0</u>	31.0
MT 2063	43.0	59.2	13.4	<u>188.7</u>	32.3
MT 2030	42.9	59.7	13.5	189.3	30.0
MT 21104	42.5	59.6	13.7	190.0	30.0
NDHRS14-0134-C03	41.6	59.0	13.9	<u>188.0</u>	31.7
MT DUTTON	40.6	58.7	13.2	189.0	32.3
VIDA	40.6	58.1	14.1	189.3	31.3
SY INGMAR	40.2	59.2	14.5	191.7	30.7
WB 9516	39.9	61.5	14.3	190.0	30.0
MT SIDNEY	39.6	60.0	13.4	<u>188.0</u>	31.3
SY 611 CL2	39.5	60.2	13.9	<u>188.7</u>	28.7
SY ROCKFORD	39.0	57.9	13.5	190.7	30.0
MT 21074	38.7	61.4	14.0	190.7	28.3
LCS BOOM	38.2	61.7	13.4	<u>188.0</u>	31.3
LCS ASCENT	38.0	61.1	13.2	<u>188.0</u>	30.7
WB 9719	38.0	62.2	13.4	190.0	28.3
AP GUNSMOKE CL2	37.4	58.3	15.3	191.0	31.0
WB 9668	37.2	59.6	14.9	<u>188.0</u>	26.7
AP SMITH	37.1	59.3	14.7	190.3	27.0
McNEAL	36.7	57.9	15.0	191.0	32.0
DUCLAIR	36.7	57.5	14.9	<u>188.0</u>	30.7
REEDER	36.2	59.8	14.6	189.7	31.0
AAC CONCORD	36.2	58.7	14.6	191.0	36.7
ROCKER	35.9	59.9	14.5	190.3	29.3
LANNING	35.9	60.1	13.8	190.0	29.7
NS PRESSER CLP	35.8	57.0	13.5	192.0	33.7
CORBIN	35.0	58.8	14.8	<u>188.0</u>	31.7
MS RANCHERO	34.1	61.4	14.7	197.0	29.0
CHOTEAU	33.9	58.8	14.1	189.7	29.7
SY LONGMIRE	33.2	58.4	14.9	<u>188.7</u>	27.3
W-2	32.5	58.1	14.9	<u>188.3</u>	31.7
WB 9879 CLP	31.9	59.1	14.0	189.0	28.0
WB GUNNISON	30.4	57.8	14.9	189.7	27.3
THATCHER	29.8	57.0	<u>15.4</u>	190.7	<u>37.7</u>
MEAN (n=64)	38.9	59.5	14.0	189.3	31.0
C.V.	13.6	1.4	4.4	0.3	4.6
PROBABILITY(LINE)	<0.05	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	8.6	1.4	1.0	1.0	2.3

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

2023 ADVANCED SPRING WHEAT NURSERY, SIDNEY (DRY), (Collaborator : Chengci Chen, EARC)

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
MT 2030	<u>92.3</u>	61.7	12.1	163.7	30.6
LANNING	90.5	62.5	13.6	162.3	29.2
LCS ASCENT	90.1	62.1	12.6	162.0	30.4
DAGMAR	89.6	61.9	14.0	163.0	31.0
MT DUTTON	89.5	61.1	12.3	164.0	32.4
LCS HammerAX	88.8	62.0	12.1	163.7	29.0
MT CARLSON	88.1	62.5	13.0	163.7	29.1
AP GUNSMOKE CL2	87.2	61.7	13.3	164.7	29.4
NS PRESSER CLP	87.1	60.7	13.3	168.0	33.0
NDHRS14-0134-C03	87.0	60.3	12.8	162.7	30.3
MT SIDNEY	86.9	61.6	12.1	163.0	31.2
VIDA	86.8	61.5	12.3	164.7	31.0
MS COBRA	86.6	62.7	12.2	163.7	30.8
LCS BOOM	86.3	62.8	13.0	161.7	29.1
SY 611 CL2	86.1	63.6	13.1	164.7	27.8
WB 9719	84.0	<u>65.5</u>	12.7	166.3	28.3
SY ROCKFORD	83.4	60.8	11.8	167.7	29.9
MS RANCHERO	83.3	62.6	12.4	165.3	33.2
AP SMITH	83.3	61.8	13.5	166.0	26.7
MT 21074	83.1	63.6	12.7	167.3	31.5
MT 2049	82.8	61.0	12.8	160.3	28.0
McNEAL	82.5	61.4	13.7	168.3	32.2
MT 2063	82.1	61.5	13.3	163.7	28.7
ROCKER	81.8	63.2	13.3	168.3	29.5
SY LONGMIRE	81.4	62.5	12.8	165.7	28.7
WB 9516	81.1	62.2	12.6	164.3	29.5
MT 21104	80.1	61.8	12.5	165.0	30.7
REEDER	79.6	61.8	13.5	164.0	30.0
WB 9879 CLP	79.0	60.8	13.5	166.0	29.9
CHOTEAU	78.0	60.7	12.6	165.7	31.5
DUCLAIR	77.5	61.2	12.2	163.3	32.5
WB GUNNISON	77.4	62.7	12.3	165.3	28.2
W-2	76.6	60.5	12.9	164.0	30.7
WB 9668	76.3	60.6	<u>14.4</u>	162.0	23.5
AAC CONCORD	75.5	61.6	13.3	166.3	38.1
SY INGMAR	71.9	63.4	13.9	169.3	28.9
CORBIN	71.6	59.5	12.6	163.7	27.7
THATCHER	60.6	60.4	12.9	168.0	<u>39.0</u>
MEAN (n=64)	83.4	61.7	13.0	164.4	30.6
C.V.	6.8	1.2	4.4	0.6	4.7
PROBABILITY(LINE)	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	9.1	1.2	0.9	1.6	2.3

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

2023 ADVANCED SPRING WHEAT NURSERY, WILLISTON (DRY), (Collaborator:Justin Jacobs,NDSU)

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
MT DUTTON	52.0	60.1	15.0	164.0	21.7
NS PRESSER CLP	49.0	60.3	14.8	167.7	22.2
SY 611 CL2	49.0	62.0	13.8	165.0	20.5
McNEAL	48.3	60.2	14.8	166.0	24.8
DAGMAR	47.7	60.3	15.0	163.0	22.0
MT CARLSON	47.7	58.9	14.5	165.3	19.7
WB GUNNISON	45.3	61.7	14.5	164.7	21.8
VIDA	45.3	59.5	14.9	165.3	22.3
LCS BOOM	45.0	62.4	14.5	164.0	22.0
LANNING	44.3	60.6	14.7	165.3	21.7
W-2	44.3	59.8	15.0	164.3	22.5
AAC CONCORD	43.7	60.0	14.7	166.0	25.6
LCS ASCENT	43.0	61.4	14.5	163.3	22.4
MT 21074	42.7	61.2	15.2	166.0	22.3
CHOTEAU	42.0	59.1	15.6	164.0	21.0
ROCKER	41.7	60.2	14.9	166.0	22.4
DUCLAIR	41.7	59.6	15.3	163.7	21.3
WB 9719	41.3	62.1	14.4	165.7	21.1
SY ROCKFORD	40.7	61.1	14.9	166.3	22.7
MT SIDNEY	40.7	60.7	14.6	164.7	21.2
MT 2049	40.3	60.5	14.7	163.7	19.8
CORBIN	39.7	60.0	14.8	164.0	21.5
AP GUNSMOKE CL2	39.3	60.6	15.2	164.7	21.0
SY INGMAR	38.7	61.6	14.9	167.0	20.6
LCS HammerAX	38.3	60.3	14.7	164.3	19.7
SY LONGMIRE	37.3	60.1	16.0	165.0	20.5
MT 2030	35.3	60.0	14.5	165.3	21.8
REEDER	34.3	60.9	14.7	165.0	22.4
MT 21104	34.3	60.9	14.8	164.3	22.2
WB 9668	34.0	59.4	17.3	164.7	18.9
MS RANCHERO	33.7	62.0	13.9	171.0	23.7
MT 2063	32.3	60.8	15.4	164.3	21.3
AP SMITH	31.3	59.3	15.6	166.0	18.8
NDHRS14-0134-C03	31.3	58.8	14.6	164.3	21.6
THATCHER	30.7	59.1	15.3	167.0	25.8
MS COBRA	30.7	60.9	14.7	163.7	21.3
WB 9516	30.7	61.4	14.2	164.7	21.8
WB 9879 CLP	30.3	59.6	16.0	165.7	21.9
MEAN (n=64)	41.4	60.5	15.0	164.8	21.8
C.V.	13.0	1.7	3.1	0.5	5.4
PROBABILITY(LINE)	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	8.7	1.7	0.8	1.3	1.9

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

2023 ADVANCED SPRING WHEAT NURSERY, BOZEMAN (IRRI)

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
WB 9516	<u>141.1</u>	61.5	13.4	188.7	35.6
LCS ASCENT	140.6	62.1	13.9	184.3	37.2
MT SIDNEY	137.1	60.5	13.9	185.0	36.6
MT 21074	136.9	62.7	15.3	189.3	35.4
MT DUTTON	136.1	58.9	14.9	187.7	38.8
NDHRS14-0134-C03	134.7	60.9	14.4	186.0	37.6
DAGMAR	133.0	61.5	14.8	184.7	37.3
LCS HammerAX	132.1	63.1	14.0	186.7	35.9
MT CARLSON	131.2	61.2	14.4	186.3	35.1
MT 21104	130.3	61.3	14.5	188.0	36.0
MT 2030	129.1	60.9	15.0	187.0	36.5
MT 2049	127.4	60.8	14.6	183.0	36.2
MT 2063	127.4	58.5	14.4	186.7	36.8
W-2	127.1	59.5	14.4	185.7	35.8
SY ROCKFORD	126.4	60.5	13.5	189.7	37.1
CHOTEAU	125.5	57.5	14.3	187.0	36.2
DUCLAIR	122.9	62.0	14.4	185.3	37.4
LANNING	122.1	62.5	14.6	187.7	36.2
VIDA	121.9	57.9	14.7	188.7	36.7
LCS BOOM	121.4	<u>64.8</u>	14.1	183.3	35.1
AP SMITH	121.0	62.8	14.6	189.0	33.4
MS COBRA	120.3	62.8	14.4	187.0	36.2
WB 9879 CLP	119.4	60.9	14.2	188.3	35.3
SY LONGMIRE	119.0	62.7	14.5	188.0	34.6
AP GUNSMOKE CL2	118.4	60.9	14.8	186.7	36.2
ROCKER	118.3	60.9	14.6	189.0	36.4
WB GUNNISON	117.0	62.6	13.7	188.0	35.3
SY 611 CL2	115.7	62.5	14.7	187.0	32.9
SY INGMAR	115.5	62.8	14.5	189.3	34.6
REEDER	111.8	59.9	14.8	188.7	39.9
AAC CONCORD	110.0	61.3	15.3	190.0	44.7
WB 9719	109.3	63.4	13.7	188.7	34.3
WB 9668	107.5	61.4	15.3	183.0	29.0
NS PRESSER CLP	105.7	56.6	14.4	192.0	39.6
McNEAL	100.0	63.7	15.3	189.7	39.2
CORBIN	98.7	58.5	14.2	185.7	36.9
THATCHER	88.8	60.8	15.1	191.3	50.0
MS RANCHERO	84.7	60.2	14.2	194.7	45.6
MEAN (n=64)	123.8	61.1	14.5	187.3	36.9
C.V.	6.6	3.3	1rep	0.3	2.5
PROBABILITY(LINE)	<0.001	<0.001	1rep	<0.001	<0.001
LSD(0.05)	13.1	3.3	1rep	0.9	1.5

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

2023 ADVANCED SPRING WHEAT NURSERY, KALISPELL (HIGH RAINFALL)), (Collaborator:David Larson, NWARC)

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)	TKW (g)	GLD (DAYS)	FALLING NUMBER
DAGMAR	124.0	61.5	13.2	168.3	33.9	46.0	42.7	442
MT SIDNEY	123.8	61.2	11.8	168.0	34.6	32.9	42.7	386
SY 611 CL2	123.1	63.4	12.2	168.0	30.2	37.9	43.0	526
MT CARLSON	123.0	62.4	11.6	169.7	32.3	44.1	40.0	445
MT DUTTON	122.7	60.9	12.0	169.7	32.9	39.5	41.0	424
CHOTEAU	121.2	60.8	12.9	169.0	33.0	40.1	43.0	451
MT 2063	121.0	61.7	11.3	168.3	32.0	42.9	40.0	409
WB 9719	120.6	64.3	12.4	172.0	29.3	40.0	39.0	445
WB 9516	118.9	61.6	11.4	171.7	30.7	43.0	43.0	383
MT 21104	117.9	62.3	11.3	169.3	31.1	39.9	39.0	421
LCS ASCENT	117.9	61.7	12.3	166.7	33.9	39.3	43.0	450
MS COBRA	117.7	62.4	11.9	167.3	32.8	37.4	43.0	384
WB GUNNISON	116.5	63.0	11.6	170.3	30.8	46.8	44.0	525
LCS HammerAX	116.2	62.2	11.8	168.7	31.9	41.1	41.7	459
MT 2049	114.5	61.7	12.0	166.0	30.9	41.7	42.3	486
LCS BOOM	114.4	63.6	12.8	166.3	33.5	41.4	40.7	440
REEDER	111.4	62.3	12.8	172.0	37.3	40.9	42.3	453
SY LONGMIRE	110.6	63.1	12.4	168.3	32.2	39.6	42.3	479
LANNING	109.1	61.7	12.8	171.0	32.5	42.9	41.0	437
VIDA	108.9	61.3	12.0	170.7	33.6	42.2	41.7	386
NS PRESSER CLP	107.6	60.1	11.4	173.7	36.4	39.8	39.0	412
AP SMITH	106.3	62.5	13.0	170.0	31.0	38.1	39.7	500
CORBIN	105.9	62.2	12.7	168.3	33.3	48.9	43.7	437
AP GUNSMOKE CL2	105.9	62.4	12.5	170.0	31.7	39.1	37.3	585
W-2	104.9	61.1	12.4	168.0	33.0	46.1	44.0	392
WB 9879 CLP	104.2	60.4	12.9	169.7	32.6	38.0	40.0	476
DUCLAIR	103.7	61.1	12.3	167.3	33.1	41.5	40.3	409
MS RANCHERO	103.2	60.3	12.2	175.3	35.6	38.9	36.3	383
AAC CONCORD	101.5	61.7	12.8	171.0	38.7	44.4	41.0	503
MT 21074	100.9	62.3	12.7	170.0	32.6	41.3	44.3	464
McNEAL	100.0	61.8	11.4	171.3	34.3	39.9	38.7	612
NDHRS14-0134-C03	98.7	60.1	11.0	169.0	33.5	35.3	39.3	452
MT 2030	98.2	60.6	12.4	169.7	32.3	42.2	42.3	372
SY INGMAR	98.0	62.9	13.8	170.0	31.9	38.5	40.7	503
THATCHER	97.0	61.8	11.8	171.3	44.7	38.0	40.7	452
ROCKER	95.2	61.7	12.5	171.7	31.9	33.9	38.7	538
WB 9668	93.9	60.9	13.3	167.0	24.2	37.2	41.7	422
SY ROCKFORD	92.0	59.8	11.9	172.0	34.7	39.3	37.0	448
MEAN (n=64)	110.9	61.6	12.3	169.5	33.2	41.3	41.4	453
C.V.	9.6	0.5	3.4	0.5	5.6	2.7	3.6	5.5
PROBABILITY(LINE)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	17.2	0.5	0.7	1.3	3.0	1.8	2.4	40

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

2023 ADVANCED SPRING WHEAT NURSERY, SIDNEY (IRRIGATION), (Collaborator : Chengci Chen, EARC)

ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
NDHRS14-0134-C03	<u>133.7</u>	62.2	13.5	164.0	36.0
MT SIDNEY	129.7	62.4	13.6	163.3	35.2
WB 9516	127.7	62.8	13.3	165.0	32.6
ROCKER	126.7	62.1	13.5	168.7	35.5
MT DUTTON	125.7	61.9	13.8	165.0	35.0
DAGMAR	124.2	62.2	15.8	163.3	37.8
MT 21104	124.2	62.7	13.9	166.3	35.8
AP GUNSMOKE CL2	124.1	62.2	14.7	164.3	34.1
MT 2030	122.6	61.7	14.1	163.7	35.5
SY 611 CL2	122.6	63.7	14.6	163.3	31.5
LCS BOOM	122.4	63.2	14.3	160.3	33.1
MS COBRA	122.4	62.3	14.1	164.0	34.0
LCS HammerAX	122.3	62.1	14.5	163.7	31.8
VIDA	122.1	62.1	13.7	166.3	36.6
WB 9719	121.9	<u>65.3</u>	13.8	166.3	32.2
SY LONGMIRE	121.1	62.5	14.1	165.7	35.0
MS RANCHERO	120.8	63.6	12.4	169.7	41.7
REEDER	120.6	63.1	13.7	165.3	38.6
SY ROCKFORD	120.5	60.3	13.3	167.0	35.3
LCS ASCENT	120.5	62.2	13.8	160.7	33.7
NS PRESSER CLP	119.7	61.5	13.2	169.3	38.1
LANNING	118.6	61.8	14.4	163.3	33.7
MT CARLSON	117.9	61.4	13.9	165.0	33.9
WB 9879 CLP	116.8	61.3	13.6	167.0	36.9
DUCLAIR	116.7	60.9	13.7	163.3	35.5
CHOTEAU	116.3	61.4	13.6	165.7	34.6
AP SMITH	116.2	62.8	13.6	167.3	30.8
McNEAL	116.0	61.0	14.1	167.3	36.1
MT 2049	113.8	62.0	14.6	<u>160.0</u>	31.6
MT 21074	111.4	61.9	15.0	167.3	34.6
MT 2063	107.4	61.1	13.9	163.7	34.0
SY INGMAR	106.9	63.3	14.5	167.0	32.8
WB 9668	105.3	60.6	<u>16.0</u>	161.0	27.8
W-2	104.0	60.5	13.5	163.7	37.9
CORBIN	102.2	60.4	13.7	164.0	33.9
WB GUNNISON	99.3	62.9	13.1	165.0	31.1
AAC CONCORD	98.2	61.6	14.5	166.3	40.7
THATCHER	97.5	61.7	13.8	169.7	44.6
MEAN (n=64)	119.3	62.0	14.1	164.7	35.5
C.V.	4.0	0.8	3.6	0.4	3.5
PROBABILITY(LINE)	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)	7.6	0.8	0.8	1.1	2.0

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

**2023 OVERALL AGRONOMIC SUMMARY FOR SPRING WHEAT OFF-STATION NURSERY GROWN UNDER
RAIN FED CONDITION (10 LOCATIONS) ACROSS MONTANA**

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	GRAIN PROTEIN (%)	HEADING DATE (JULIAN)	HEIGHT (INCHES)	SAWFLY CUT (%)	FALLING NO.
17	MT 2030	54.0	60.6	13.1	166.3	29.6	23.5	451
16	MT CARLSON	52.5	60.5	13.2	166.7	28.9	16.5	430
25	MT 21105	52.3	61.0	13.4	165.7	29.7	17.6	430
15	MT DUTTON	52.1	59.9	13.4	166.3	30.3	23.3	450
20	MT 2063	52.1	61.0	12.8	165.3	29.8	15.6	423
12	DAGMAR	51.3	61.3	13.6	164.3	30.5	17.1	455
22	MT 21037	50.7	60.2	13.8	165.0	29.2	12.5	429
10	LANNING	50.5	59.9	13.7	164.7	29.8	22.6	413
18	MT 2049	50.5	61.5	13.1	164.3	30.3	39.3	448
14	MT SIDNEY	49.9	61.2	13.4	165.7	30.1	34.8	443
8	VIDA	49.9	60.3	13.2	167.7	30.5	16.6	434
21	MT 21016	49.4	60.3	13.9	165.7	29.7	26.6	427
24	MT 21104	48.7	60.8	13.2	168.0	30.1	17.7	420
19	MT 2050	48.7	60.3	13.4	167.7	29.5	21.9	429
7	SY LONGMIRE	48.6	60.8	13.9	167.0	28.9	21.5	485
4	ROCKER	48.6	61.5	13.3	169.0	29.1	5.0	465
6	REEDER	47.9	60.8	13.7	166.0	31.3	30.6	427
23	MT 21074	47.9	61.3	14.0	168.3	28.4	6.3	422
9	DUCLAIR	47.9	59.8	13.6	167.3	30.5	12.4	419
2	SY SOREN	46.8	60.7	14.1	169.3	28.5	25.4	471
13	WB9879CLP	46.4	60.3	13.9	169.0	28.9	1.8	442
11	NS PRESSER CLP	45.6	59.1	13.1	169.7	30.8	21.0	421
1	BRENNAN	45.5	61.7	14.3	166.7	27.7	28.3	456
3	SY INGMAR	45.1	60.9	14.1	167.3	28.3	21.5	479
5	CORBIN	44.8	60.6	13.5	165.7	29.8	17.9	433
MEAN		49.1	60.7	13.5	166.7	29.6	19.9	440.0
C.V.		9.0	1.2	3.1	0.6	4.0	39.7	3.2
PROBABILITY (LINE)		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD (0.05)		3.9	0.7	0.4	1.7	1.0	9.7	20.0
No. of environments		10	10	10	1	10	1	4

bold : highest or earliest value within a column

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

**2023 OVERALL AGRONOMIC SUMMARY FOR SPRING WHEAT OFF-STATION NURSERY GROWN UNDER
IRRI / HIGH RAINFALL CONDITION (4 LOCATIONS INCLUDING KALISPELL) ACROSS MONTANA**

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	GRAIN PROTEIN (%)	HEADING DATE (JULIAN)	HEIGHT (INCHES)
24	MT 21104	<u>102.1</u>	58.3	14.9	165.9	34.7
12	DAGMAR	102.0	58.2	15.4	<u>163.5</u>	35.4
14	MT SIDNEY	101.6	59.0	14.8	165.8	34.4
25	MT 21105	101.3	58.5	14.9	166.4	34.9
4	ROCKER	100.8	59.4	14.9	169.2	35.3
16	MT CARLSON	99.6	58.1	14.9	165.7	33.9
15	MT DUTTON	99.5	58.1	15.2	166.9	34.7
8	VIDA	99.4	58.2	14.8	167.3	34.6
23	MT 21074	99.3	58.8	15.7	168.4	35.6
3	SY INGMAR	98.2	<u>59.4</u>	14.9	168.3	33.1
17	MT 2030	97.9	58.1	15.4	167.4	34.6
7	SY LONGMIRE	96.0	59.1	15.0	165.6	33.3
11	NS PRESSER CLP	94.9	57.6	15.2	170.9	36.0
21	MT 21016	94.6	57.8	<u>15.7</u>	164.9	34.2
19	MT 2050	94.5	58.0	14.6	166.6	34.8
9	DUCLAIR	92.9	57.7	15.3	165.9	34.3
10	LANNING	92.6	57.9	15.4	166.4	34.0
20	MT 2063	91.8	58.0	15.0	165.5	33.1
1	BRENNAN	91.6	58.3	15.4	165.6	31.4
6	REEDER	91.0	58.5	15.3	167.1	<u>38.4</u>
22	MT 21037	91.0	57.3	15.3	165.7	33.6
18	MT 2049	90.2	58.3	15.3	164.5	32.8
13	WB9879CLP	88.7	58.0	15.3	167.7	34.7
5	CORBIN	86.1	58.2	15.4	165.2	34.7
2	SY SOREN	85.2	58.6	15.1	166.3	32.3
MEAN		95.3	58.3	15.2	166.5	34.3
C.V.		6.9	1.3	2.7	0.5	3.7
PROBABILITY (LINE)		<0.01	<0.05	<0.05	<0.001	<0.001
LSD (0.05)		9.2	1.1	0.6	1.9	1.8
No. of environments		4	4	4	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)

2023 OVERALL AGRONOMIC SUMMARY FOR SPRING WHEAT OFF-STATION NURSERY GROWN IN 14 ENVIRONMENTS, INCLUDING 10 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.
17	MT 2030	66.6	59.9	13.7	167.0	31.0	23.5	451
25	MT 21105	66.3	60.3	13.8	166.2	31.2	17.6	430
16	MT CARLSON	66.0	59.8	13.7	166.0	30.3	16.5	430
12	DAGMAR	65.8	60.4	14.1	163.8	31.9	17.1	455
15	MT DUTTON	65.7	59.4	13.9	166.7	31.6	23.3	450
14	MT SIDNEY	64.7	60.6	13.8	165.8	31.3	34.8	443
8	VIDA	64.1	59.7	13.6	167.4	31.7	16.6	434
24	MT 21104	64.0	60.1	13.7	166.6	31.4	17.7	420
4	ROCKER	63.5	60.9	13.7	169.1	30.9	5.0	465
20	MT 2063	63.4	60.1	13.5	165.4	30.8	15.6	423
23	MT 21074	62.6	60.6	14.5	168.4	30.4	6.3	422
10	LANNING	62.6	59.3	14.2	165.8	31.0	22.6	413
21	MT 21016	62.3	59.6	14.4	165.2	31.0	26.6	427
22	MT 21037	62.2	59.4	14.2	165.4	30.4	12.5	429
7	SY LONGMIRE	62.2	60.3	14.2	166.1	30.1	21.5	485
18	MT 2049	61.8	60.6	13.7	164.4	31.0	39.3	448
19	MT 2050	61.8	59.7	13.7	167.0	31.1	21.9	429
9	DUCLAIR	60.8	59.2	14.1	166.3	31.6	12.4	419
3	SY INGMAR	60.3	60.5	14.4	168.0	29.7	21.5	479
6	REEDER	60.2	60.2	14.2	166.7	33.3	30.6	427
11	NS PRESSER CLP	59.7	58.7	13.7	170.5	32.3	21.0	421
1	BRENNAN	58.7	60.7	14.6	165.9	28.8	28.3	456
13	WB9879CLP	58.5	59.7	14.3	168.1	30.6	1.8	442
2	SY SOREN	57.8	60.1	14.4	167.3	29.5	25.4	471
5	CORBIN	56.6	59.9	14.0	165.4	31.2	17.9	433
MEAN		62.3	60.0	14.0	166.6	31.0	19.9	440
C.V.		8.5	1.2	3.1	0.6	4.0	39.7	3.2
PROBABILITY (LINE)		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD (0.05)		3.9	0.6	0.3	1.5	0.9	9.7	20
No. of environments		14	14	14	3	14	1	4

bold : highest or earliest value within a column

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

2023 OFF-STATION : KALISPELL (HIGH RAINFALL) : 9905

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)	TKW (g)	GLD (DAYS)	FALLING NUMBER
12	DAGMAR	<u>63.5</u>	57.5	14.9	<u>168.7</u>	32.0	26.8	33.0	611
19	MT 2050	61.0	58.3	14.4	172.7	31.3	<u>31.0</u>	29.3	558
17	MT 2030	60.9	56.7	15.1	173.0	31.1	26.9	30.7	631
16	MT CARLSON	60.9	56.6	14.8	171.3	30.9	26.8	29.7	553
22	MT 21037	59.2	57.1	14.4	171.7	30.0	26.2	29.3	554
15	MT DUTTON	59.2	57.5	15.0	172.3	29.5	22.9	30.0	564
4	ROCKER	59.1	58.0	15.2	175.0	28.7	22.9	27.7	<u>772</u>
7	SY LONGMIRE	58.8	57.9	14.9	170.3	29.9	26.0	30.7	727
18	MT 2049	58.7	58.2	14.5	169.0	31.9	28.6	32.0	585
25	MT 21105	58.5	57.4	15.1	171.3	30.2	29.1	30.3	549
1	BRENNAN	58.0	<u>59.5</u>	14.6	170.3	28.0	25.9	30.7	652
8	VIDA	58.0	57.8	14.5	173.3	30.3	25.4	29.0	535
20	MT 2063	57.4	58.0	14.4	170.7	31.0	25.4	31.3	521
2	SY SOREN	56.7	57.6	15.1	171.0	28.4	25.5	30.0	660
6	REEDER	56.5	55.9	15.7	172.7	<u>33.3</u>	25.1	31.0	549
14	MT SIDNEY	56.4	58.5	15.3	170.7	30.8	22.4	32.3	605
21	MT 21016	56.4	57.3	15.5	170.7	30.0	25.5	30.3	510
11	NS PRESSER CLP	56.2	56.7	15.0	176.7	31.3	26.6	27.7	597
10	LANNING	55.8	56.3	14.7	172.3	29.5	30.6	30.7	504
23	MT 21074	55.7	58.2	<u>16.1</u>	173.3	31.2	26.5	<u>33.3</u>	551
24	MT 21104	55.6	56.8	15.2	171.3	29.6	23.8	29.7	535
9	DUCLAIR	53.7	56.9	15.4	170.7	31.0	26.1	30.3	468
3	SY INGMAR	51.7	57.5	15.3	175.3	28.8	22.9	25.7	705
5	CORBIN	49.6	57.8	15.4	169.3	30.6	27.6	31.7	582
13	WB9879CLP	49.2	57.4	15.4	173.0	29.1	24.6	28.0	614
MEAN		57.1	57.5	15.0	171.9	30.3	26.0	30.2	588
C.V.		5.8	1.6	3.0	0.9	5.9	8.3	6.8	5.5
PROBABILITY (ENTRY)		<0.001	<0.05	<0.001	<0.001	ns	<0.01	<0.05	<0.001
LSD(0.05)		5.2	1.4	0.7	2.5	-	3.2	3.7	54

bold : highest or earliest value within a column

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

2023 OFF-STATION : HUNTLEY (DRY) : 9908

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
12	DAGMAR	<u>107.5</u>	58.1	14.8	<u>164.3</u>	39.0
14	MT SIDNEY	105.1	58.9	14.4	165.7	39.0
17	MT 2030	103.9	58.7	14.2	166.3	36.0
15	MT DUTTON	102.2	57.7	14.0	166.3	39.1
25	MT 21105	101.8	58.5	14.4	165.7	37.4
23	MT 21074	101.2	58.6	15.0	168.3	35.8
8	VIDA	100.4	58.3	14.2	167.7	37.5
7	SY LONGMIRE	99.5	59.8	14.3	167.0	36.6
4	ROCKER	97.2	59.4	14.0	169.0	37.4
24	MT 21104	94.0	58.6	13.6	168.0	38.8
6	REEDER	93.5	59.2	14.8	166.0	<u>41.6</u>
16	MT CARLSON	92.5	57.6	14.4	166.7	34.3
20	MT 2063	92.0	57.3	14.0	165.3	36.4
21	MT 21016	91.3	57.6	15.3	165.7	38.1
18	MT 2049	89.8	58.5	14.4	164.3	34.3
3	SY INGMAR	87.7	<u>60.2</u>	14.8	167.3	35.0
9	DUCLAIR	87.5	57.4	14.1	167.3	33.9
10	LANNING	86.5	58.2	15.5	164.7	34.4
2	SY SOREN	85.8	59.2	15.4	169.3	34.4
13	WB9879CLP	84.1	57.0	14.5	169.0	37.0
19	MT 2050	82.1	57.1	14.3	167.7	37.0
5	CORBIN	81.8	57.6	13.6	165.7	36.9
22	MT 21037	81.4	56.4	15.7	165.0	34.3
11	NS PRESSER CLP	79.3	56.5	14.1	169.7	38.8
1	BRENNAN	72.5	58.4	<u>16.0</u>	166.7	31.5
MEAN		92.0	58.2	14.6	166.7	36.6
C.V.		4.0	0.5	1.5	0.6	4.4
PROBABILITY (ENTRY)		<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)		6.4	0.5	0.4	1.7	2.6

bold : highest or earliest value within a column

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

2023 OFF-STATION : HUNTLEY (IRRI) : 9909

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
23	MT 21074	<u>121.1</u>	58.2	16.4	163.5	35.3
4	ROCKER	120.6	59.1	15.8	163.3	35.0
14	MT SIDNEY	120.5	58.1	15.6	160.9	34.6
8	VIDA	118.4	57.3	15.6	161.3	34.3
25	MT 21105	116.1	58.4	15.2	161.5	35.7
16	MT CARLSON	116.0	57.1	15.8	160.1	34.3
12	DAGMAR	115.9	57.6	16.3	<u>158.3</u>	35.6
17	MT 2030	115.5	57.8	16.7	161.7	34.6
7	SY LONGMIRE	115.0	59.1	15.6	160.9	35.0
24	MT 21104	115.0	57.4	15.7	160.4	32.8
15	MT DUTTON	113.7	56.9	16.3	161.5	35.0
11	NS PRESSER CLP	111.6	56.5	15.9	165.1	37.0
3	SY INGMAR	111.2	<u>59.7</u>	15.4	161.3	34.5
19	MT 2050	108.6	56.3	15.2	160.5	33.5
9	DUCLAIR	108.2	56.7	15.4	161.0	33.5
21	MT 21016	107.8	56.4	<u>16.9</u>	159.1	32.7
6	REEDER	106.0	58.7	16.3	161.4	<u>37.4</u>
10	LANNING	104.8	57.7	16.8	160.4	33.1
20	MT 2063	101.2	56.2	15.4	160.3	33.2
13	WB9879CLP	98.6	57.0	15.7	162.4	34.4
5	CORBIN	97.8	57.4	16.0	161.1	33.2
18	MT 2049	97.3	57.4	16.5	160.0	31.5
22	MT 21037	94.8	55.5	16.8	159.6	32.5
2	SY SOREN	94.3	58.4	16.0	161.5	32.0
1	BRENNAN	93.8	57.6	16.4	160.8	29.9
MEAN		108.9	57.5	16.0	161.1	34.0
C.V.		6.0	0.7	2.2	0.4	3.8
PROBABILITY (ENTRY)		<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)		10.7	0.6	0.6	1.3	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)

2023 OFF-STATION : TURNER (DRY) : 9951

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	FALLING NO.
25	MT 21105	<u>43.7</u>	61.7	15.1	21.7	424
8	VIDA	40.7	61.3	15.2	23.2	424
4	ROCKER	40.6	<u>62.4</u>	15.2	23.5	462
10	LANNING	40.5	60.7	15.3	22.2	428
9	DUCLAIR	39.6	59.9	15.6	<u>24.0</u>	430
12	DAGMAR	39.2	61.3	15.6	23.1	427
11	NS PRESSER CLP	39.0	61.2	14.3	23.7	406
19	MT 2050	38.9	60.8	15.4	21.8	441
16	MT CARLSON	38.7	60.6	15.0	22.4	446
15	MT DUTTON	38.3	60.3	16.0	22.0	456
18	MT 2049	38.2	61.7	15.4	23.3	442
17	MT 2030	37.5	61.1	15.2	20.5	488
1	BRENNAN	36.9	61.8	15.9	21.8	459
22	MT 21037	36.5	60.2	16.1	21.6	414
21	MT 21016	36.5	60.1	15.9	22.3	428
13	WB9879CLP	36.0	60.1	16.0	22.0	459
6	REEDER	35.9	61.4	15.2	22.6	432
14	MT SIDNEY	35.7	61.6	16.0	23.2	455
7	SY LONGMIRE	35.2	61.2	15.9	22.3	480
20	MT 2063	34.8	61.9	15.4	22.3	432
23	MT 21074	34.6	61.6	16.1	22.3	418
24	MT 21104	34.6	61.6	15.5	22.8	421
2	SY SOREN	34.1	61.3	16.1	21.6	473
3	SY INGMAR	33.6	61.6	<u>16.3</u>	21.2	472
5	CORBIN	33.4	61.4	15.3	22.1	443
MEAN		37.3	61.2	15.6	22.4	442
C.V.		7.9	0.7	2.3	4.0	2.4
PROBABILITY (ENTRY)		<0.01	<0.001	<0.001	<0.001	<0.001
LSD(0.05)		4.4	0.6	0.5	1.3	17

bold : highest or earliest value within a column

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

2023 OFF-STATION : CHESTER (DRY) : 9953

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	FALLING NO.
17	MT 2030	<u>63.9</u>	55.9	16.2	30.3	485
16	MT CARLSON	63.0	55.8	16.2	30.2	444
12	DAGMAR	59.8	57.4	16.5	<u>32.4</u>	477
20	MT 2063	59.7	56.0	15.9	30.7	437
22	MT 21037	58.8	56.0	16.4	29.9	470
18	MT 2049	58.6	<u>57.9</u>	15.9	31.1	494
19	MT 2050	58.4	56.8	15.8	29.7	441
25	MT 21105	57.0	56.5	16.4	29.3	477
21	MT 21016	55.8	56.6	16.4	29.8	448
2	SY SOREN	55.8	53.7	17.0	28.5	472
10	LANNING	55.7	53.3	16.8	30.0	428
15	MT DUTTON	55.6	54.5	16.9	30.7	489
8	VIDA	55.5	55.2	16.4	31.3	482
9	DUCLAIR	54.5	55.0	17.1	30.8	419
1	BRENNAN	54.0	56.9	16.7	28.3	451
5	CORBIN	53.9	57.2	17.0	29.9	455
23	MT 21074	53.7	57.3	17.5	29.2	447
6	REEDER	53.7	55.9	17.0	32.1	441
14	MT SIDNEY	52.9	57.0	16.2	29.8	455
4	ROCKER	52.9	56.6	17.3	28.4	483
7	SY LONGMIRE	51.7	55.3	17.2	27.9	<u>515</u>
3	SY INGMAR	50.2	53.2	<u>17.7</u>	26.5	500
13	WB9879CLP	49.9	55.8	16.3	30.1	453
24	MT 21104	49.7	54.5	17.2	27.5	445
11	NS PRESSER CLP	48.1	54.0	16.7	29.5	450
MEAN		55.3	55.8	16.7	29.8	462
C.V.		6.7	1.2	1.2	3.1	3
PROBABILITY (ENTRY)		<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)		4.6	0.9	0.3	1.4	22

bold : highest or earliest value within a column

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

2023 OFF-STATION : LORING (DRY) : 9955

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	SAWFLY CUT (%)	FALLING NO.
16	MT CARLSON	<u>59.2</u>	58.0	14.1	29.2	16.5	419
17	MT 2030	56.1	58.4	14.1	28.8	23.5	424
25	MT 21105	55.7	58.8	14.5	30.0	17.6	420
15	MT DUTTON	55.0	57.0	14.5	30.2	23.3	440
19	MT 2050	54.7	58.8	14.1	29.7	21.9	422
12	DAGMAR	53.5	59.1	15.2	29.0	17.1	463
18	MT 2049	53.3	58.9	14.3	30.4	39.3	433
22	MT 21037	52.4	57.7	14.9	28.7	12.5	433
20	MT 2063	52.4	58.1	14.4	27.8	15.6	420
24	MT 21104	51.6	57.1	14.9	28.0	17.7	412
21	MT 21016	51.5	57.8	15.1	28.7	26.6	418
4	ROCKER	50.9	59.6	14.5	26.8	5.0	458
8	VIDA	50.7	58.3	14.1	28.2	16.6	413
14	MT SIDNEY	50.5	58.5	14.7	<u>30.5</u>	34.8	435
10	LANNING	49.6	56.9	14.8	29.9	22.6	399
23	MT 21074	49.2	<u>59.8</u>	14.8	26.9	6.3	417
9	DUCLAIR	49.1	57.1	<u>15.4</u>	29.5	12.4	424
1	BRENNAN	48.4	59.6	14.8	26.8	28.3	466
13	WB9879CLP	48.2	57.5	15.2	27.4	<u>1.8</u>	441
5	CORBIN	47.8	59.2	14.6	29.7	17.9	434
11	NS PRESSER CLP	47.4	57.7	14.2	29.2	21.0	408
2	SY SOREN	46.4	58.4	15.2	27.3	25.4	488
6	REEDER	46.2	58.1	14.9	29.9	30.6	418
7	SY LONGMIRE	44.2	58.2	15.3	27.4	21.5	486
3	SY INGMAR	41.9	58.3	<u>15.4</u>	27.1	21.5	478
MEAN		50.6	58.3	14.7	28.7	19.9	435
C.V.		5.5	1.0	1.5	3.9	39.7	2.5
PROBABILITY (ENTRY)		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)		3.3	0.7	0.3	1.6	9.7	18

bold : highest or earliest value within a column

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

2023 OFF-STATION : LOMA (DRY) : 9957

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	FALLING NO.
10	LANNING	<u>74.9</u>	59.6	12.3	32.8	398
16	MT CARLSON	72.6	59.8	12.5	31.0	410
15	MT DUTTON	71.6	59.9	12.2	33.9	416
17	MT 2030	69.9	58.9	12.8	32.4	406
18	MT 2049	68.4	61.4	12.7	32.7	424
22	MT 21037	68.2	59.5	12.9	31.2	400
12	DAGMAR	66.9	60.4	13.4	33.8	454
14	MT SIDNEY	66.9	61.6	12.4	32.2	428
24	MT 21104	66.4	60.3	12.0	33.0	403
21	MT 21016	66.2	60.2	13.3	31.6	412
20	MT 2063	66.1	60.0	12.1	32.8	401
2	SY SOREN	65.6	60.8	13.2	29.9	449
6	REEDER	65.0	60.3	13.3	33.5	417
25	MT 21105	64.9	60.1	13.1	30.2	399
19	MT 2050	64.2	59.2	12.8	33.2	410
3	SY INGMAR	63.9	61.0	12.9	30.9	<u>467</u>
1	BRENNAN	62.4	<u>62.3</u>	13.3	29.9	447
7	SY LONGMIRE	61.9	58.6	<u>13.5</u>	29.9	457
9	DUCLAIR	61.2	59.3	12.6	<u>34.4</u>	403
4	ROCKER	61.0	59.4	13.4	30.2	456
11	NS PRESSER CLP	61.0	57.9	12.7	33.2	419
8	VIDA	60.6	58.4	12.8	33.1	418
13	WB9879CLP	58.5	59.6	13.2	30.6	415
23	MT 21074	55.8	58.9	13.5	30.0	406
5	CORBIN	54.6	59.8	13.3	31.3	400
MEAN		64.8	59.9	12.9	31.9	421
C.V.		6.5	1.2	3.6	3.2	2.4
PROBABILITY (ENTRY)		<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)		5.8	1.0	0.6	1.4	17

bold : highest or earliest value within a column

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

2023 OFF-STATION : MOCCASIN (DRY) : 9970

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
20	MT 2063	<u>58.3</u>	62.7	12.6	32.0
15	MT DUTTON	58.0	61.0	12.6	31.8
12	DAGMAR	57.0	63.2	13.0	31.0
10	LANNING	56.0	62.3	12.8	31.3
18	MT 2049	56.0	62.6	13.0	31.0
17	MT 2030	55.3	62.5	12.6	31.0
3	SY INGMAR	52.9	61.6	13.5	30.3
8	VIDA	52.8	60.4	12.7	<u>32.7</u>
1	BRENNAN	52.7	<u>63.7</u>	13.7	28.7
19	MT 2050	52.6	61.8	12.9	31.0
7	SY LONGMIRE	52.5	62.1	13.0	30.0
24	MT 21104	52.5	61.0	12.8	29.7
9	DUCLAIR	52.4	60.9	13.6	32.3
2	SY SOREN	52.1	61.4	13.3	30.7
14	MT SIDNEY	51.7	62.2	13.0	30.7
16	MT CARLSON	50.7	62.6	13.4	29.7
6	REEDER	50.1	62.2	13.1	31.7
25	MT 21105	49.8	62.2	12.8	31.3
4	ROCKER	49.0	61.9	13.1	29.7
13	WB9879CLP	48.9	61.6	13.9	29.7
22	MT 21037	48.0	61.5	13.6	30.7
11	NS PRESSER CLP	46.4	57.8	13.1	32.0
5	CORBIN	46.3	60.8	13.9	31.0
21	MT 21016	44.8	61.2	<u>14.3</u>	31.3
23	MT 21074	43.9	62.8	13.7	28.0
MEAN		51.6	61.8	13.2	30.8
C.V.		9.9	1.3	4.5	4.0
PROBABILITY (ENTRY)		<0.05	<0.001	<0.01	<0.01
LSD(0.05)		8.3	1.2	0.7	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)

2023 OFF-STATION : GERALDINE (DRY) : 9972

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
24	MT 21104	<u>27.4</u>	63.5	12.1	25.3
15	MT DUTTON	26.7	62.3	12.5	23.7
18	MT 2049	25.5	63.9	12.1	<u>25.7</u>
7	SY LONGMIRE	24.6	64.0	12.3	24.7
25	MT 21105	24.4	63.1	12.5	24.3
22	MT 21037	24.3	62.5	12.6	22.7
13	WB9879CLP	23.8	62.7	12.8	22.3
19	MT 2050	23.5	62.1	12.1	22.3
20	MT 2063	23.5	64.2	11.1	23.3
16	MT CARLSON	23.4	63.2	11.7	22.7
14	MT SIDNEY	23.4	63.6	13.0	23.3
23	MT 21074	23.1	64.1	12.2	22.7
4	ROCKER	23.0	<u>64.6</u>	11.8	22.7
21	MT 21016	23.0	61.9	12.6	22.0
8	VIDA	23.0	63.5	12.0	24.3
6	REEDER	22.7	63.1	12.6	23.7
2	SY SOREN	22.7	63.5	12.6	22.7
5	CORBIN	22.5	63.8	12.4	23.7
12	DAGMAR	22.3	63.3	12.8	23.7
3	SY INGMAR	22.2	64.0	12.8	22.7
17	MT 2030	21.5	62.7	11.4	22.0
1	BRENNAN	20.4	63.7	<u>13.3</u>	21.7
11	NS PRESSER CLP	20.1	63.0	11.9	23.7
9	DUCLAIR	19.3	62.2	12.3	24.3
10	LANNING	19.0	62.6	12.6	22.3
MEAN		23.0	63.2	12.3	23.3
C.V.		11.5	0.7	4.3	4.0
PROBABILITY (ENTRY)		<0.05	<0.001	<0.001	<0.001
LSD(0.05)		3.7	0.7	0.6	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)

2023 OFF-STATION : JUDITH GAP (DRY) : 9976

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
23	MT 21074	<u>32.4</u>	65.3	<u>12.8</u>	31.9
21	MT 21016	30.8	65.1	11.9	32.9
14	MT SIDNEY	30.7	64.9	11.0	31.3
25	MT 21105	29.8	65.9	11.1	32.7
18	MT 2049	29.7	65.0	11.4	33.0
17	MT 2030	29.3	64.7	10.7	33.7
20	MT 2063	28.7	65.5	10.4	32.5
24	MT 21104	28.0	<u>66.2</u>	11.6	35.1
16	MT CARLSON	27.2	65.3	11.2	30.3
6	REEDER	27.0	65.9	11.9	<u>35.8</u>
22	MT 21037	27.0	64.8	11.6	31.6
11	NS PRESSER CLP	26.0	64.3	11.0	34.6
12	DAGMAR	25.7	65.7	11.1	34.9
15	MT DUTTON	25.3	64.6	11.5	32.4
4	ROCKER	25.1	<u>66.2</u>	11.2	32.2
8	VIDA	24.7	64.6	11.6	33.8
1	BRENNAN	23.7	65.2	11.9	31.9
13	WB9879CLP	23.7	65.1	11.5	31.7
2	SY SOREN	23.5	65.6	12.2	30.8
5	CORBIN	23.0	65.4	10.7	30.4
10	LANNING	22.0	65.3	11.3	32.6
3	SY INGMAR	20.5	66.0	12.4	31.4
9	DUCLAIR	20.5	65.0	11.4	32.7
19	MT 2050	20.5	64.5	12.0	29.9
7	SY LONGMIRE	18.9	65.9	11.5	30.1
MEAN		25.8	65.3	11.5	32.4
C.V.		29.9	0.8	12.5	6.5
PROBABILITY (ENTRY)		ns	<0.001	ns	<0.01
LSD(0.05)		-	0.8	-	2.9

bold : highest or earliest value within a column

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

2023 OFF-STATION : BILLINGS (DRY) : 9994

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
17	MT 2030	<u>71.2</u>	60.0	13.9	34.4
22	MT 21037	70.4	60.1	14.2	33.3
20	MT 2063	69.5	60.5	13.2	31.9
7	SY LONGMIRE	66.1	59.8	<u>15.3</u>	33.5
16	MT CARLSON	64.5	59.6	14.0	33.1
10	LANNING	64.3	58.5	14.5	34.6
25	MT 21105	64.1	59.1	14.1	34.4
13	WB9879CLP	63.3	60.0	14.9	34.4
21	MT 21016	60.6	60.2	14.1	34.6
9	DUCLAIR	60.4	59.1	14.1	33.9
8	VIDA	58.7	59.6	13.8	33.7
11	NS PRESSER CLP	55.3	58.2	13.5	<u>36.2</u>
5	CORBIN	55.0	58.7	14.4	34.9
15	MT DUTTON	55.0	59.3	14.1	32.9
18	MT 2049	54.6	61.9	12.6	32.0
2	SY SOREN	54.4	60.4	14.7	32.5
23	MT 21074	54.4	60.7	14.7	31.6
6	REEDER	54.1	59.1	14.5	34.9
19	MT 2050	51.9	59.8	14.1	32.3
3	SY INGMAR	51.7	60.4	14.7	32.9
4	ROCKER	51.4	61.8	12.7	32.7
14	MT SIDNEY	51.3	59.9	14.2	33.2
12	DAGMAR	49.8	60.9	13.7	33.6
24	MT 21104	48.9	61.2	13.3	32.3
1	BRENNAN	48.3	<u>62.0</u>	15.1	29.3
MEAN		58.0	60.0	14.1	33.3
C.V.		7.7	1.6	5.4	4.6
PROBABILITY (ENTRY)		<0.001	<0.001	<0.001	<0.0001
LSD(0.05)		10.4	1.7	1.4	2.5

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

2023 OFF-STATION : BROADVIEW (DRY) : 9995

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
19	MT 2050	<u>40.3</u>	62.4	10.1	28.5
22	MT 21037	39.7	63.1	10.0	27.7
10	LANNING	36.9	61.7	10.7	27.4
1	BRENNAN	36.1	63.6	<u>11.8</u>	27.4
20	MT 2063	35.8	63.3	9.3	28.4
9	DUCLAIR	34.6	62.2	9.9	28.9
4	ROCKER	34.4	63.0	9.6	27.4
24	MT 21104	34.1	64.0	9.4	28.6
11	NS PRESSER CLP	33.7	60.5	9.0	26.8
15	MT DUTTON	33.7	62.4	9.6	26.4
16	MT CARLSON	33.3	62.8	9.9	25.9
21	MT 21016	33.2	62.6	9.6	25.7
8	VIDA	32.1	62.9	9.0	27.4
7	SY LONGMIRE	31.8	63.5	11.1	26.2
17	MT 2030	31.8	63.2	9.7	26.5
25	MT 21105	31.6	63.8	9.5	25.8
12	DAGMAR	31.4	63.8	10.0	24.8
6	REEDER	31.2	63.0	9.8	27.1
14	MT SIDNEY	31.2	<u>64.2</u>	8.9	27.8
23	MT 21074	31.0	63.6	10.0	25.5
18	MT 2049	30.9	63.2	9.3	<u>29.6</u>
5	CORBIN	30.1	62.3	9.8	28.3
2	SY SOREN	28.0	62.9	11.5	26.2
13	WB9879CLP	28.0	63.7	10.4	24.2
3	SY INGMAR	26.5	63.1	10.9	25.2
MEAN		32.9	63.0	10.0	27.0
C.V.		8.4	0.9	3.9	5.2
PROBABILITY (ENTRY)		<0.0001	<0.001	<0.001	<0.001
LSD(0.05)		5.1	0.9	0.7	2.5

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2023 OFF-STATION : HYSHAM (IRRI) : 9996

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	LODGING (0-9)
14	MT SIDNEY	<u>114.1</u>	58.9	13.6	33.9	2.7
24	MT 21104	112.7	59.0	13.6	36.1	2.3
25	MT 21105	112.4	58.7	13.9	35.3	1.1
4	ROCKER	109.8	<u>59.8</u>	13.8	<u>38.5</u>	1.7
17	MT 2030	108.0	59.1	14.5	33.2	1.9
21	MT 21016	106.3	58.0	14.9	34.8	1.5
23	MT 21074	106.3	58.9	15.0	35.4	<u>0.6</u>
7	SY LONGMIRE	106.0	59.6	13.8	30.4	2.2
9	DUCLAIR	105.8	58.0	14.7	34.3	2.7
15	MT DUTTON	104.8	57.9	14.2	34.3	2.7
8	VIDA	104.6	57.8	14.2	35.0	2.2
16	MT CARLSON	104.5	57.9	13.7	31.4	1.9
22	MT 21037	103.6	57.1	15.0	32.5	2.6
3	SY INGMAR	102.3	59.7	14.0	31.2	0.9
19	MT 2050	102.2	57.2	14.3	35.6	1.5
10	LANNING	101.9	58.4	14.7	34.0	0.8
2	SY SOREN	101.3	59.4	14.2	32.4	1.9
12	DAGMAR	100.9	58.1	<u>15.1</u>	34.4	3.3
13	WB9879CLP	100.8	58.3	14.6	36.2	1.9
1	BRENNAN	98.7	58.2	14.8	31.2	1.6
18	MT 2049	95.5	58.3	14.8	31.0	4.8
5	CORBIN	89.8	57.3	14.7	33.5	2.9
11	NS PRESSER CLP	89.2	57.0	14.3	36.1	3.4
6	REEDER	86.6	59.1	14.7	38.3	0.9
20	MT 2063	85.3	57.4	14.8	31.5	2.1
MEAN		102.1	58.4	14.4	34.0	2.1
C.V.		3.9	0.6	2.1	5.3	34.1
PROBABILITY (ENTRY)		<0.001	<0.001	<0.001	<0.001	<0.01
LSD(0.05)		6.8	0.6	0.5	3.1	1.3

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2023 OFF-STATION : FROMBERG (IRRI) : 9997

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
3	SY INGMAR	<u>127.6</u>	60.5	14.9	37.7
12	DAGMAR	<u>127.6</u>	59.7	15.4	39.4
24	MT 21104	125.2	59.8	15.1	40.1
20	MT 2063	123.3	60.4	15.5	36.7
11	NS PRESSER CLP	122.7	60.0	15.5	39.5
15	MT DUTTON	120.4	59.9	15.1	39.9
25	MT 21105	118.2	59.6	15.5	38.5
16	MT CARLSON	116.9	60.8	15.2	38.8
8	VIDA	116.7	59.9	14.9	38.6
1	BRENNAN	115.8	57.7	<u>15.6</u>	36.3
14	MT SIDNEY	115.2	60.5	14.5	38.1
6	REEDER	114.8	60.2	14.6	<u>44.6</u>
23	MT 21074	114.1	60.0	15.1	40.4
4	ROCKER	113.6	60.5	14.8	38.8
18	MT 2049	109.2	59.1	15.3	36.8
10	LANNING	108.0	59.3	15.3	39.4
21	MT 21016	107.9	59.4	15.5	39.3
17	MT 2030	107.3	58.8	15.1	39.3
5	CORBIN	107.0	60.4	15.3	41.5
13	WB9879CLP	106.3	59.4	<u>15.6</u>	39.2
22	MT 21037	106.3	59.4	15.0	39.5
19	MT 2050	106.2	60.2	14.3	38.9
7	SY LONGMIRE	104.3	59.8	<u>15.6</u>	38.0
9	DUCLAIR	103.7	59.2	<u>15.6</u>	38.5
2	SY SOREN	88.5	58.8	15.2	36.2
MEAN		113.1	59.7	15.2	39.0
C.V.		8.3	1.8	2.8	5.0
PROBABILITY (ENTRY)		<0.001	ns	<0.05	<0.001
LSD(0.05)		16.8	-	0.8	3.4

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2023 OFF-STATION : ROOSEVELT (DRY)

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
17	MT 2030	<u>56.9</u>	63.0	14.2	28.7
8	VIDA	55.4	63.1	14.4	27.4
1	BRENNAN	53.4	<u>64.4</u>	15.1	26.8
12	DAGMAR	51.9	63.6	15.6	29.7
15	MT DUTTON	51.6	62.5	15.3	26.6
16	MT CARLSON	49.7	62.4	14.4	28.1
10	LANNING	49.5	61.2	15.5	<u>29.9</u>
18	MT 2049	49.1	62.0	14.2	27.4
14	MT SIDNEY	48.3	63.9	14.9	26.1
23	MT 21074	47.9	63.5	<u>16.6</u>	27.6
25	MT 21105	47.3	64.1	15.3	27.6
3	SY INGMAR	47.0	62.8	15.5	27.0
2	SY SOREN	46.8	63.0	15.5	24.9
21	MT 21016	46.8	63.0	15.4	25.6
22	MT 21037	46.5	62.1	15.3	26.8
6	REEDER	46.2	63.2	15.2	27.7
19	MT 2050	46.0	62.7	15.1	28.2
7	SY LONGMIRE	45.7	63.7	14.5	28.0
24	MT 21104	45.0	63.6	15.2	28.3
13	WB9879CLP	44.8	62.8	15.6	28.5
11	NS PRESSER CLP	43.7	61.3	15.3	27.8
20	MT 2063	43.6	63.7	15.2	28.1
9	DUCLAIR	41.1	61.6	15.7	27.3
MEAN		48.0	62.9	15.2	27.6
C.V.		7.5	1.0	3.3	4.9
PROBABILITY (ENTRY)		<0.001	<0.001	<0.001	<0.01
LSD(0.05)		5.9	1.0	0.8	2.2

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2023 OFF-STATION : EARC-RECROP (DRY)

ENTRY	ID	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
11	NS PRESSER CLP	<u>77.6</u>	60.9	13.0	169.3	28.6
25	MT 21105	75.7	63.1	13.1	166.7	29.1
13	WB9879CLP	75.3	61.6	13.0	167.7	28.2
24	MT 21104	73.8	62.9	13.0	167.0	<u>29.9</u>
17	MT 2030	72.7	61.6	13.2	166.0	24.7
8	VIDA	71.2	62.0	12.8	167.7	28.0
14	MT SIDNEY	70.3	63.0	12.8	165.7	27.2
16	MT CARLSON	69.6	60.8	13.1	166.0	25.5
15	MT DUTTON	69.3	61.5	13.5	165.7	27.8
12	DAGMAR	69.3	62.0	14.2	163.0	26.7
6	REEDER	69.1	62.9	13.4	166.3	27.3
21	MT 21016	68.8	61.3	14.2	164.0	26.6
7	SY LONGMIRE	68.7	63.3	13.3	167.7	26.9
20	MT 2063	68.5	62.0	12.9	166.0	28.2
19	MT 2050	68.5	61.7	13.5	165.7	27.6
10	LANNING	68.0	63.0	13.4	165.3	25.6
22	MT 21037	67.5	61.2	14.1	165.7	27.4
23	MT 21074	66.4	<u>63.6</u>	14.3	169.0	28.3
3	SY INGMAR	65.6	63.4	13.8	166.0	24.7
18	MT 2049	63.8	61.5	13.9	<u>162.3</u>	25.5
9	DUCLAIR	63.4	60.2	13.5	164.3	27.4
1	BRENNAN	61.5	62.8	<u>14.8</u>	163.0	24.1
2	SY SOREN	60.2	62.4	14.7	164.7	24.9
MEAN		68.9	62.1	13.6	165.9	27.0
C.V.		4.7	0.9	2.4	0.6	6.4
PROBABILITY (ENTRY)		<0.001	<0.001	<0.001	<0.001	<0.01
LSD(0.05)		5.4	0.9	0.5	1.8	2.8

bold : highest or earliest value within a column

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

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 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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